



clearNEWS

Newsletter November 2022



Topics

Portfolio development – clearvise	3
Electricity market.....	4
clearvise – internal profile	8

Dear Shareholders, Friends of our Company and Business Partners,

after clearvise AG enjoyed a successful first half year in 2022, we are delighted to give you all our news on the latest developments during recent months. For the first time ever, we have held an analysts' conference on our half-year results for 2022. You are welcome to view the conference on our website ([Link](#)). We are going to have a more professional operation for Investor Relations. In future, this will be part of our standard business practice and reporting will also take place in English. You can access the latest company presentation shown recently at our roadshow in Frankfurt, Munich, London, Helsinki and Copenhagen in German ([Link](#)) and English ([Link](#)) by clicking on the relevant links. You can also read the English half-year report here ([Link](#)).

The negotiations with Tion Renewables AG (previously: Pacifico Renewables Yield AG) about the acquisition of the established portfolio in Europe with around 159 MW are making good progress. The due diligence for all 33 wind and solar projects is currently under way. The planned acquisition would increase our portfolio by around 52% to more than 462 MW.

The high energy prices are currently a major issue driving the conversation in the public domain. On 14 September 2022, the European Commission published a proposal for a regulation introducing emergency measures as a response to the high energy prices. According to this regulation, a cap of EUR 180/MWh will also be introduced for renewable energy. We believe that this is a well-reasoned, evidence-based proposal and we support the measure. The member states are currently working hard to transfer this EU regulation into national legislation. The states can either exceed the cap or fall below it. Above all, it is important for legislation to restore clarity and improve the reliability of forecasts. Since our sales and income forecast drawn up with commercial prudence is only ever based on the revenues received, and forward-looking projections are exclusively based on secured prices from feed-in tariffs and electricity supply contracts concluded (PPA), we have already had to carry out adjustments to forecasts three times this year owing to the high electricity prices.

We would like to extend our sincere thanks to you for joining us and following our news and for your trust in accompanying us on the journey of clearvise AG. Our growing team would like to wish you an interesting and exciting read.

Warmest regards,

Petra Leue-Bahns
CEO

Manuel Sieth
CFO



Portfolio development – clearvise

Overall development

After the end of the third quarter of 2022, the operating portfolio has an output capacity of 303 MW and posts a percentage increase of approximately 52% by comparison with the third quarter of 2021 with year-earlier capacity of 199 MW. The expansion of our generation capacity provided a significant increase in electricity production during the first nine months. The 37 projects linked to the grid have already generated a total of 363.4 GWh green electricity during this reporting period. This represents an increase of 45% compared with the year-earlier period with production of 253.3 GWh. The rise in electricity generation of approximately 77% compared with the year-earlier third quarter and the current year was actually significantly higher, which is primarily due to expansion of the portfolio in photovoltaics (PV). A total of 115.3 GWh were generated overall in the third quarter, while production at 66 GWh was still in the double-digit gigawatt-hour range in the equivalent year-earlier period for 2021 ([see Production Overview status 30.09.2022](#)).

Info: High-pressure area

High-pressure areas are created when cold air sinks due to its higher density. As a result, the air pressure on the ground increases. The warm air on the ground is displaced by the cold air descending from above. This leads to flow of air (wind), known as convergence. These air flows move clockwise in the northern hemisphere and anti-clockwise in the southern hemisphere. The cold air masses thereby keep returning and warm up as they descend. They can thereby absorb moisture better. This ensures that the clouds clear and the sun shines.

Photovoltaics

In the PV area, two major factors govern a significant increase in production. Firstly, advantageous weather conditions, particularly the more frequent occurrence of high-pressure areas in spring and summer. Secondly, the expansion of the PV output connected to the grid to 133 MW of installed capacity with 19 photovoltaic systems. After more than 43.4 GWh was produced in the second quarter, electricity generation went up to 49.4 GWh in the past third quarter. This resulted in total production of 98.1 GWh for the first nine months of the year. Our Klettwitz-Nord landmark project with installed capacity of 90 MWp linked up with the grid as planned on 29 April 2022. The start-up phase included various acceptance tests, but the plant was already producing largely according to plan during the commissioning phase. This made a significant contribution to the robust increase in our solar power production. The PV plant Klettwitz-Nord is now generating electricity above the forecast figures, with 58.9 GWh having been generated since the plant came onstream up to the end of September. At this point, we should like to say a big Thank You to our project development partners GP JOULE, Terravent and Steinböck EE for the effective cooperation. We are proud to have worked together with them to significantly expand our PV portfolio.

Wind

Clearvise is currently operating 17 wind farms in Germany, France, Finland, and Ireland with a cumulative output of 169 MW. In the period up to the end of September, the development of wind production in the four countries demonstrated considerable differences owing to various influencing factors. In France, all the portfolio wind turbines were generating between ~-6% and ~-25% below average, owing to unfavourable wind conditions or maintenance work in the period up to and including the third quarter. Meanwhile, electricity generation in the remaining countries increased by between ~2% and ~25%. In the first nine months, our wind farms generated 261.6 GWh, which represents an increase of 21.4 GWh or approximately ~9% compared with the equivalent year-earlier period. Production in the third quarter amounted to slightly more than 64.4 GWh, an increase of 4.7 GWh or approximately ~8% compared with the equivalent year-earlier period with 59.7 GWh (rounded up).

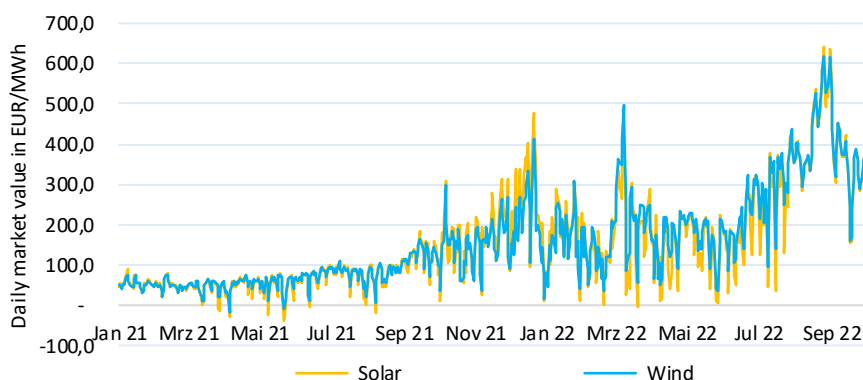


Electricity market

Renewable energy – Development of market values

In the period under review, significant price hikes for fossil fuels became a reality owing to the war in Ukraine, reduced gas and coal deliveries to Europe along with the drought in summer, which led to a lack of cooling water and hence to lower performance at nuclear power plants in France. These increases brought about an upward trend in market values for renewables in Germany during the first half of the year. Hence, the average price for photovoltaic electricity went up by approximately ~230% from 50 €/MWh to 165 €/MWh in comparison with the equivalent year-earlier half year, while the market value for onshore wind climbed by approximately ~231% from 45 €/MWh to 149 €/MWh. However, the third quarter held further price rises in store and the highest monthly market price level to date came in August. During this summer month, the average market values for PV and onshore wind climbed to 399 €/MWh and 461 €/MWh respectively. This led to percentage increases of some ~420% and some ~535% respectively compared with the equivalent year-earlier month. In the third quarter, photovoltaics and onshore wind achieved average prices of 323 €/MWh and 341 €/MWh respectively, rising by some ~264% and ~291% respectively compared with the year-earlier quarter ([Development of German market values for solar and wind since 2022](#)). After the German Federal Government filled the gas storage facilities to ~95% capacity, market values came down correspondingly.

New record highs for renewables in the third quarter¹



Development of German market values for solar and wind 2022²

Month	Market value for solar [€/MWh]	Market value for onshore wind [€/MWh]
January	178.38 (+222% comp. PY)	128.83 (+177% comp. PY)
February	118.71 (+164% comp. PY)	108.25 (+148% comp. PY)
March	207.12 (+405% comp. PY)	197.66 (+482% comp. PY)
April	145.66 (+220% comp. PY)	127.03 (+192% comp. PY)
May	151.32 (+261% comp. PY)	132.42 (+220% comp. PY)
June	189.40 (+176% comp. PY)	199.09 (+211% comp. PY)
July	260.93 (+252% comp. PY)	278.24 (+309% comp. PY)
August	399.10 (+420% comp. PY)	460.92 (+535% comp. PY)
September	316.73 (+170% comp. PY)	282.38 (+140% comp. PY)

¹ <https://www.epexspot.com/en/market-data>

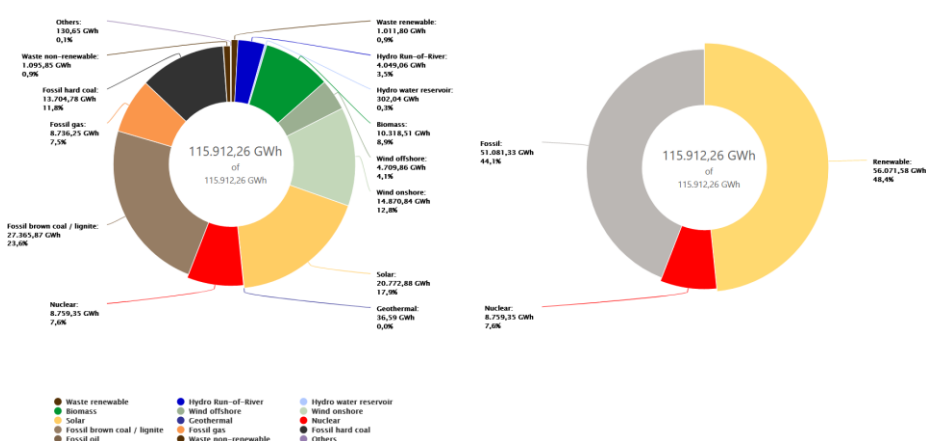
² <https://www.netztransparenz.de/EEG/Marktpraemie/Marktwerte>



Renewables – Installed power and electricity generation

Given the development of installed net power capacities and public net electricity generation in the field of renewable energy in Germany, there is a mix of outcomes for the first nine months of the current year. A positive highlight is that the new peak values in June and July were 8.4 terawatt hours of electricity being generated in the PV segment for each month, which resulted in a new production record from renewables of 51.4 TWh. This enabled PV to increase its share in the period approximately 13%. In the third quarter, PV with 20.7 TWh or a share of 17.9% took second place for power generation after lignite. According to the Fraunhofer Institute, power capacities in the first three quarters went up by 5.2 GW to 64.2 GW. By contrast, expansion of onshore and offshore wind facilities was very sluggish during this period and currently falls significantly short of the goals for successful implementation of the energy targets by 2030. Hence, only 1.2 GW of installed power were added for onshore wind, increasing installed power to 57.7 GW. Conversely, no further turbines have come onstream for offshore wind since the middle of 2020.³ The wind-power turbines installed in Germany generated 71.4 TWh onshore and 16.8 GWh offshore. Together, they contributed almost 24% to the public net electricity generation in the first nine months. Total net electricity generation from renewable energy climbed from 118 TWh to 129.9 TWh and the proportion of renewable energy in German net electricity generation continued to consolidate above the 50% mark.⁴

Net electricity generation and net power capacities in Q3 2022⁵⁶

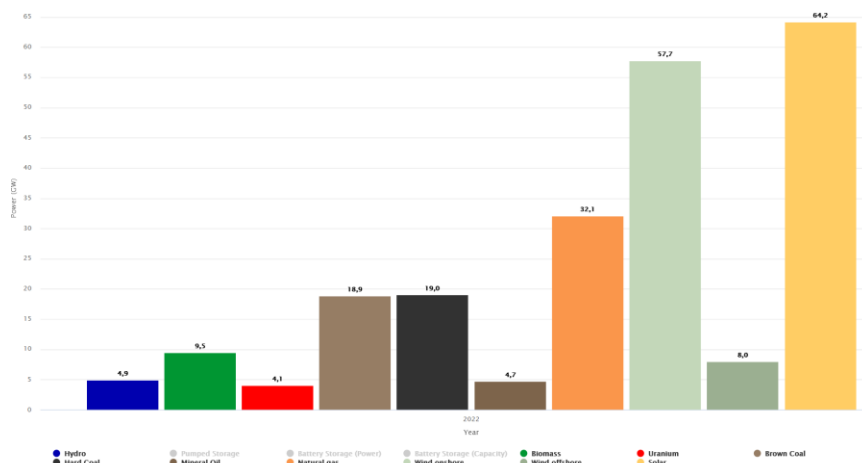


³ <https://www.umweltbundesamt.de/themen/erstes-halbjahr-2022-deutlich-mehr-strom-aus-wind>

⁴ <https://www.energy-charts.info>

⁵ https://energy-charts.info/charts/energy_pie/chart.html?l=de&c=DE&interval=quarter&year=2022&download-format=image%2Fpng, status 31.10.2022

⁶ https://energy-charts.info/charts/installed_power/chart.html?l=de&c=DE&stacking=single&chartColumnSorting=default, status 31.10.2022



Info: Merit Order and Merit Order effect

The Merit Order is a way of ranking the operational sequence of power plants. It is determined by the variable costs of electricity generation. Initially, the most cost-effective power plants come onstream to cover demand. The last power plant with the highest marginal costs which is used to meet the demand determines the price.

The Merit Order effect is that power plants with expensive production are displaced by a power plant with lower variable costs entering the market. This effect is primarily demonstrated in renewables with marginal costs close to zero. For example, wholesale electricity prices in times of high winds or PV feed-in are lower than in times of low feed-in. Alongside the level of the feed-in, the level of the effect also depends on the demand for electricity and the increase in the Merit Order curve. This in turn is influenced by the technologies and fuel prices.

Electricity prices and fossil energy sources

Both the historic and the future development of European electricity markets determine the core business of clearvise. This is why it remains essential to continuously deal with and analyse the different electricity prices and their influencing factors. We would like to present the most important developments of recent months below. In the past third quarter, the European electricity markets experienced their most volatile phase by far since data has been recorded on the energy market. The volatile marginal costs for fossil fuels ranked along the Merit Order played a significant role in that. This was fundamentally a reaction to the exceptionally difficult and complex situation that primarily developed from the consequences of the war in Ukraine.

The first factor is the freeze on Russian coal exports to Europe, which has been in place since 11 August due to the introduction of EU sanctions against Russia imposed in April.⁷ An additional factor relates to the significantly reduced gas deliveries from Russia to Europe. While the export of gas from Russia to various European countries was already completely discontinued in the summer, Russian gas company Gazprom was only delivering 20% of the contractually agreed gas deliveries to Germany along the Nord Stream 1 pipeline from 25 July onwards, until deliveries were completely halted on 31 August.⁸ As a consequence of these events and the resulting expectations, along with the purchasing policy of the Federal Government, the price of gas on the spot market in Germany exceeded the price level of more than 300 €/MWh in September. This represented a fourfold increase since the beginning of June, when the price consolidated for a brief period at 75 €/MWh. The significantly increased marginal costs for gas in Europe meant that coal-fired power plants which had been shut down particularly in Germany were started up again in order to compensate for the reduced gas-fired generation of electricity and the shortfall in nuclear-powered electricity from France. As a result, coal prices increased so that the relevant European Coal Price Index API2 for short-term, sea-based deliveries at the ports of Amsterdam, Rotterdam and Antwerp (ARA) rose to USD 400 per metric ton.

The final important price factor is related to the situation of the ailing nuclear-power reactors in France. Recently, only just over half of the 56 French reactors were operating due to maintenance work and unseasonably high temperatures. These in turn resulted in higher water temperatures and restricted cooling options for the power plants. Instead of exporting nuclear power as is generally the case, this situation has placed France in the unaccustomed position of being dependent on electricity imported from neighbouring countries.⁹ As a result of these unusual circumstances,

⁷ <https://www.tagesschau.de/wirtschaft/weltwirtschaft/faq-kohleembargo-russland-eu-101.html>

⁸ <https://www.reuters.com/business/energy/gazprom-nord-stream-1-gas-stay-shut-until-turbine-fault-fixed-no-time-line-given-2022-09-02/>

⁹ <https://www.sueddeutsche.de/politik/frankreich-kernkraft-macron-1.5656779>

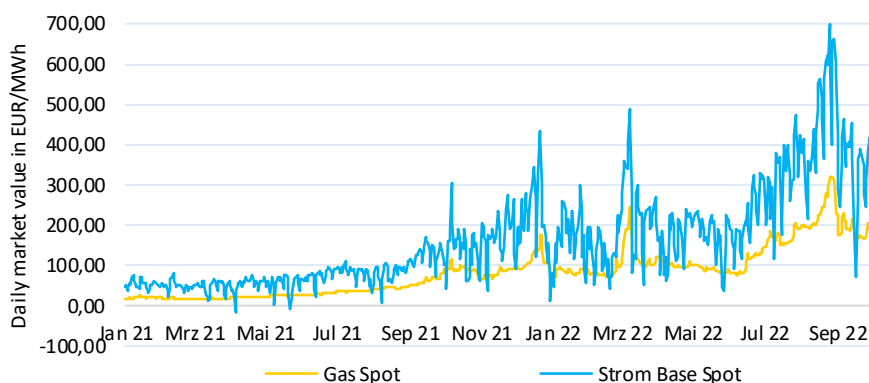


French nuclear power plants only produced 209.2 TWh in the first three quarters, down 22% from the equivalent year-earlier period.¹⁰

In this fraught market environment, daily electricity prices on the spot market intermittently reached a peak of 700 €/MWh, while a price of more than 1000 €/MWh was briefly called on the futures market with respect to the futures electricity contract for baseload in 2023 as a result of what was essentially a market panic. However, prices have fallen again – in some cases significantly – since the highs at the beginning of September, both on the spot market and for future quarterly and annual deliveries. The reasons for this were the fall in price on European gas markets as a result of political efforts to depress gas consumption and the now well-filled European storage facilities for natural gas, with storage in Germany now being more than 95% full at the current time.¹¹

Conversely, the depressed growth prospects for the fourth quarter of 2022 and the year 2023 indicate flatlining of demand in the raw-materials sector, which is also likely to put a brake on the demand for fossil fuels, depending on the region. As a consequence, the average price levels in September for gas and electricity on the spot market came down and averaged 188 €/MWh and 346 €/MWh respectively compared with the equivalent year-earlier period, although there were still percentage increases of 303% and 170% respectively ([Development of market values Gas Spot and Electricity Base Spot since 2022](#)).

Rollercoaster in the German spot gas and electricity market¹²



Development of market values Gas Spot and Electricity Base Spot since 2022¹³

Month	Gas Spot [€/MWh]	Electricity Base Spot [€/MWh]
January	83.88 (+425% comp. PY)	167.73 (+218% comp. PY)
February	80.55 (+454% comp. PY)	128.80 (+164% comp. PY)
March	129.02 (+717% comp. PY)	251.94 (+434% comp. PY)
April	101.75 (+491% comp. PY)	165.73 (+209% comp. PY)
May	88.32 (+351% comp. PY)	177.48 (+233% comp. PY)
June	100.66 (+351% comp. PY)	218.03 (+194% comp. PY)
July	167.51 (+467% comp. PY)	315.00 (+287% comp. PY)
August	235.05 (+540% comp. PY)	465.18 (+462% comp. PY)
September	188.84 (+303% comp. PY)	346.11 (+170% comp. PY)

¹⁰ <https://www.reuters.com/business/energy/edfs-french-nuclear-output-down-372-september-2022-10-12/>

¹¹ <https://www.zdf.de/nachrichten/wirtschaft/gasspeicher-95-prozent-fuellung-energiekrise-100.html>

¹² www.epexspot.com

¹³ www.epexspot.com



clearwise – internal profile

Expansion of the Management Board of clearwise AG

A brief internal profile. The Supervisory Board of clearwise AG has expanded the Management Board of clearwise AG to two members. On 1 July 2022, the previous Commercial Manager and Authorised Signatory, Manuel Sieth, was appointed as the additional Member of the Management Board. His contract initially runs for the next three years. The contract of the CEO, Petra Leue-Bahns, was correspondingly extended by three years with effect from 1 March 2023.

The two Board Members have already been jointly managing the company, reorganising and expanding clearwise over the past two years. The Management Board, Supervisory Board and the entire team are delighted and extend their warmest congratulations on the well-earned appointment.



In his function as Chief Financial Officer (CFO), Manuel Sieth's responsibilities include financial planning and controlling, asset management and IT at clearwise AG. Before he moved to clearwise as Commercial Manager in 2020, he held a position as Senior Portfolio Manager at AMPEGA, the asset manager of the Talanx insurance group, with responsibility for investments in renewables and other infra-

structure. He holds a Masters in Energy Economics from RWTH Aachen University and WWU Münster, and a B.A. (Banking/Finance) from the Baden-Württemberg Cooperative State University.

He is married and the father of a little daughter.

clearwise celebrates at the Oktoberfest

If you can work hard, you can also party hard! Here at clearwise, there is a lot of cohesion within the team. This communal spirit enables us to tackle the challenging work with huge enthusiasm. Regular activities together are therefore a big feature in the clearTEAM. They encourage our colleagues to get to know each other and strengthen trust in the company. They lead to creative exchange and are also a symbol of appreciation for our people. After two years of the pandemic, the Oktoberfest was held once again this year and the clearTEAM went to the "Wiesn" to party together, celebrating in traditional costume with beer, pretzels and the customary Bavarian music.





Disclaimer

This document was produced with great care by clearwise AG (hereinafter referred to as: “clearwise”). All the material and information included in this document is exclusively for information purposes only and is not intended to be a comprehensive or complete description of clearwise’s business. The document may include statements about the future which relate to the business, the financial performance and the results of clearwise, or to strategies, prospects and growth prospects, future plans and growth potential, industry trends and the impacts of regulatory initiatives. Such statements can be identified by words such as “expectation”, “conviction”, “estimate”, “plan”, “target” or “forecast” and similar expressions or by their context. These statements are made on the basis of current knowledge and assumptions, and involve risks and uncertainties. Various factors may cause actual future results, performance or events to differ materially from those described in these statements, and neither clearwise nor any other person whatsoever accepts responsibility for the accuracy of the opinions expressed in this document or the assumptions underlying them. The figures may vary owing to rounding errors.



Registered Office: clearwise AG
Unter den Eichen 7
65195 Wiesbaden
Germany

Office: clearwise AG
Gervinusstr. 17
60325 Frankfurt/Main
Germany
www.clearwise.com