ENERGY BLOCKS

Quarterly production report for December 2024

Report dated 31 January 2024
for the period: Full Year 2024

ABLX Holding bv

1 . Current PV plant performance

The following tables show the performance of the different PV plants quarterly and year to date. We have included the results for the month December in this report as well.

Electricity produced during the fourth quarter decreased compared to the previous quarter, which is normal and due to seasonal effects, i.e. lower solar irradiation. The same effect is observed in the monthly data for the same reasons. As of January, we should see production slowly increasing again. December is traditionally the least productive month of the year.

Compared to last year, the overall portfolio performs well and slightly better, with 4,23% more kwh produced during this year compared to last year.

SKW 12, situated near München, shows a decrease in production compared to the same period last year. This is the result of technical difficulties with the equipment; several invertors have been malfunctioning, which is still continuing. The company is looking into repowering the project altogether and renew the equipment to modernize the project and increase production with the same available area (m2 rooftop).

Nb. The data from the wind turbine project held by Gael Wind Partners Limited is omitted in this report, but will be included as of this year 2025.

Table 1. Production of the previous quarter.

Project name	Capacity	Feed-in Tariff	Prod. 2024 Q4	Prod. 2024 Q3	Prod. 2023 Q4	Q Prod. YoY	YtD Prod. 2024	YtD Prod. 2023	YtD YoY
unit	kWp	per kWh	kWh	kWh	kWh	%	kWh	kWh	%
SKW 2	3.700	0,1876	328.862	1.318.816	294.586	11,64%	3.470.683	3.286.622	5,60%
SKW 5	300	0,2253	24.373	108.478	20.659	17,98%	281.322	261.058	7,76%
SKW 6	300	0,2253	22.558	99.248	16.913	33,38%	262.119	216.716	20,95%
SKW 12	900	0,2608	54.577	218.922	60.372	-9,60%	556.329	620.726	-10,37%
Total	**5.200**		**430.370**	**1.745.464**	**392.530**	**9,64%**	**4.570.453**	**4.385.122**	**4,23%**

Table 2. Production of the previous month.

Project name	Capacity	Feed-in Tariff	Prod. 2024 Dec	Prod. 2024 Nov	Prod. 2023 Dec	Q Prod. YoY	YtD Prod. 2024	YtD Prod. 2023	YtD YoY
unit	kWp	per kWh	kWh	kWh	kWh	%	kWh	kWh	%
SKW 2	3.700	0,1876	49.479	77.520	34.751	42,38%	3.470.683	3.286.622	5,60%
SKW 5	300	0,2253	3.281	5.671	2.222	47,66%	281.322	261.058	7,76%
SKW 6	300	0,2253	2.724	5.142	1.795	51,75%	262.119	216.716	20,95%
SKW 12	900	0,2608	11.566	14.821	8.644	33,80%	556.329	620.726	-10,37%
Total	**5.200**		**67.050**	**103.154**	**47.412**	**41,42%**	**4.570.453**	**4.385.122**	**4,23%**

2. Current versus previous period portfolio performance

Total portfolio production this year shows good performance. Compared to the same period last year we see a comparatively good performance in winter this year with production levels more than 30% above previous year's production in the same periods (chart 2). Also, a relatively better performance during spring and late summer and somewhat lower production results during summer period compared to the same periods in the previous year as is shown in the following charts. This is the effect of multiple factors such as local weather conditions, solar radiance and other local factors influencing periodic performance such as pollution or dirty panels.

Overall production is in line with expectations where the year 2020 and 2022 show increased production results. In particular we can observe this in 2022. For instance, the 2022-year results were an effect of cleaner air, i.e. less pollution due to decreased industrial activities and traffic during that covid year (chart 4).

Chart 1. Previous versus current period production (kWh)
Total portfolio, actuals, 2024 year to date

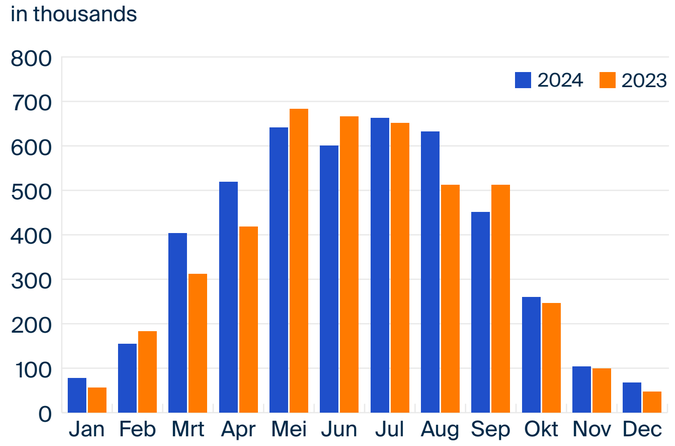


Chart 2. Previous versus current period YoY change (%)
Total portfolio, actuals, 2024 year to date

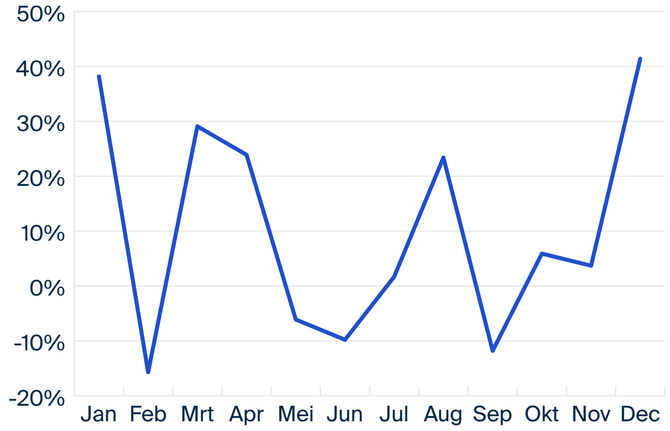


Chart 3. cumulative quarterly production (kWh)
Total portfolio, actuals, 2024 year to date

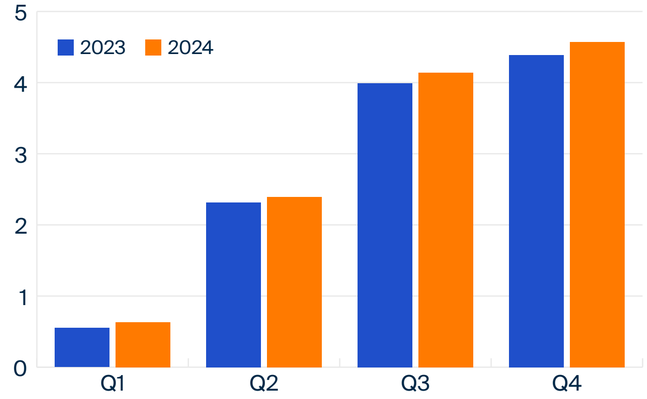
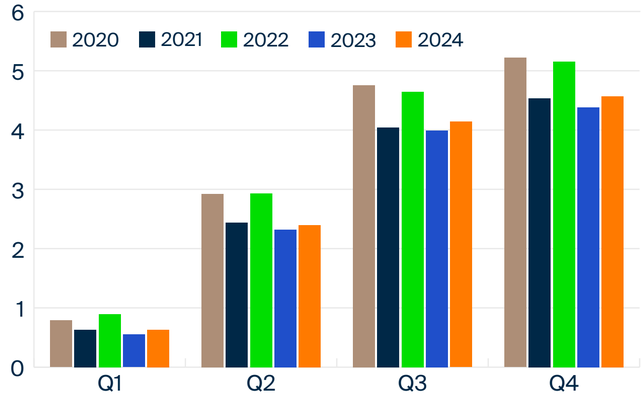


Chart 4. Cumulative production (kWh)
Portfolio historic 5 Years, actuals, 2024 year to date



3. Portfolio historical performance

Overall long-term performance is good. Historical production varies with annual solar radiance (as well as seasonality). Solar panels are also subject to so called degradation; the typical loss of performance due to aging of the equipment and wear and tear as it is exposed to weather conditions. For a typical PV-module this is around 0.5% to 0.75% per year and varies per manufacturer.

This degradation effect can be observed in the following charts as the overall trend of production is slightly decreasing abstract from annual fluctuations which are due to volatility in solar radiance during the year and from year to year.

Chart 5. Historical Production (kWh)

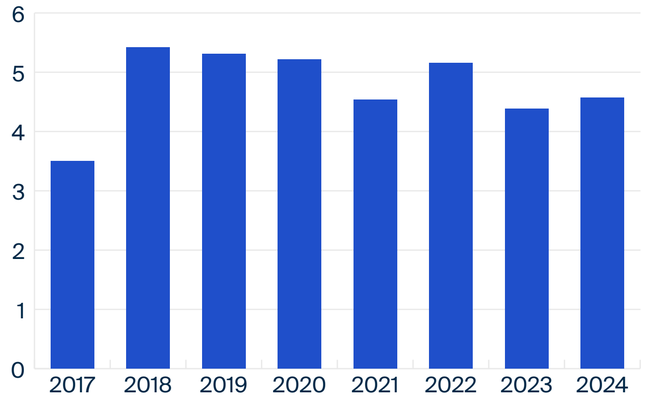


Chart 6. Historical Revenues (€)

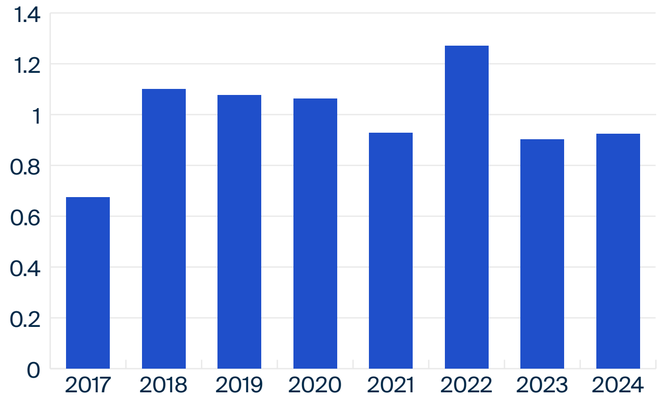


Chart 7. Historical Avg. Prices (€)

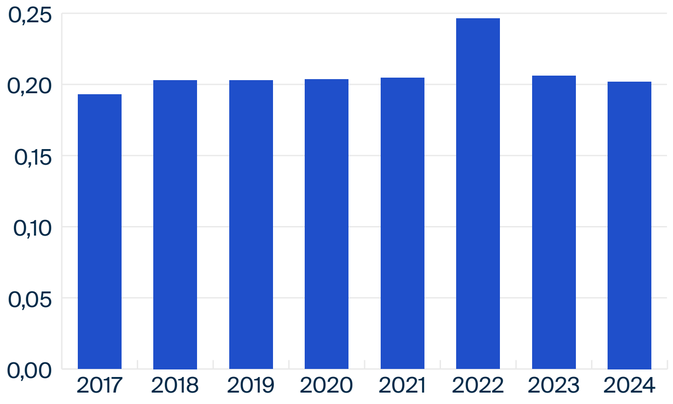
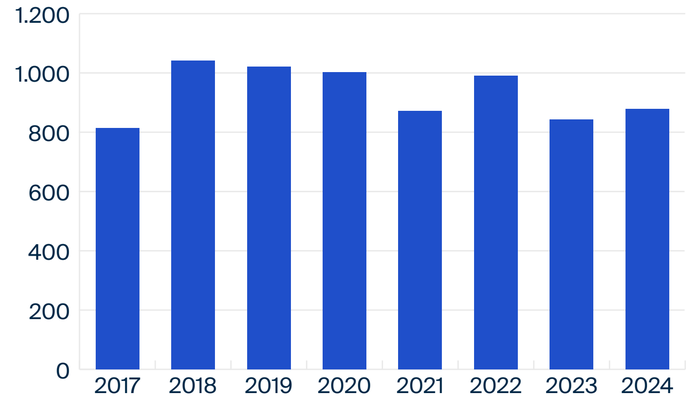


Chart 8. Historical Yield (kWh/kWp)



3. Portfolio historical performance

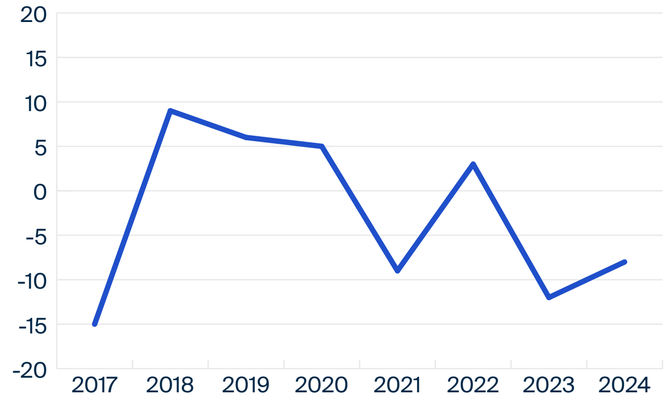
The charts 8 and 9 show the historical relative performance (kWh) of the portfolio compared to its installed capacity (kWp) and portfolio yields compared to Germany's average potential yield (as published by the IEA for instance). Please note that this is measured over the entire portfolio where solar yields are specific for their respective regions (higher yield for lower latitudes).

The portfolio performance as an aggregate of the individual solar plant performance is also influenced by regional weather and air conditions. The historical average of potential solar yield for Germany is reported to be ca. 960 kWh/kWp but varies over time. 2020 for instance had exceptional good solar yields with an average of around 1,075 kWh/kWp. Also 2018 was a remarkable above average year with 1,080 kWh/kWp.

The effects of the Ukraine war can be observed in chart 7. In 2022 energy prices increased significantly, to the benefit of the company which was able to capture part of that upward pressure on wholesale electricity prices (driven by significantly increased gas prices).

N.b. The shift in production (kWh) between 2017 and 2018 is due to inclusion of SKW12 in that year.

Chart 9. Historical Yield compared to Regional Average (kWh/kWp)



4. Portfolio Yield

The performance of the solar portfolio is expressed in solar yield. This is a specific performance ratio that measures the amount of kWh per 1 kWp of capacity installed. It enables a basic comparison of seasonality effects and year-on- year changes. The energy yield will change from year to year depending on the weather.

In other words, the performance is expressed in energy yield which is the number of kilowatt hours produced in a year divided by the STC DC rating of the PV system. It is expressed in units of kWh/kWp, as mentioned above, where kWp (“kW peak”) is the DC STC rating. STC stands for Standard Testing Conditions and is a measure of solar system performance as maintained by manufacturers. It is quoted in DC watts. This is the easiest way of computing as you multiple watt times number of panels in the system. Quoting in AC watts would include invertor efficiency, which is typically around 95%.

In the following graph the seasonal effects and slow typical degradation over time are observable in the slightly declining trend line in chart 10. Also clearly observable is the seasonal effect when producing energy with PV systems, with increased production during summer and lesser production during winter.

Chart 11 shows the year-on-year change of the yield for each month rolling forward. It shows the variability in production as a result of atmospheric conditions relative to the same period in the previous year. The yields shown here are an aggregate for the German PV portfolio but will differ per location of each PV system. So, each PV system will have its own yield and yield change patterns.

Chart 10. Historical Yields (kWh/kWp)

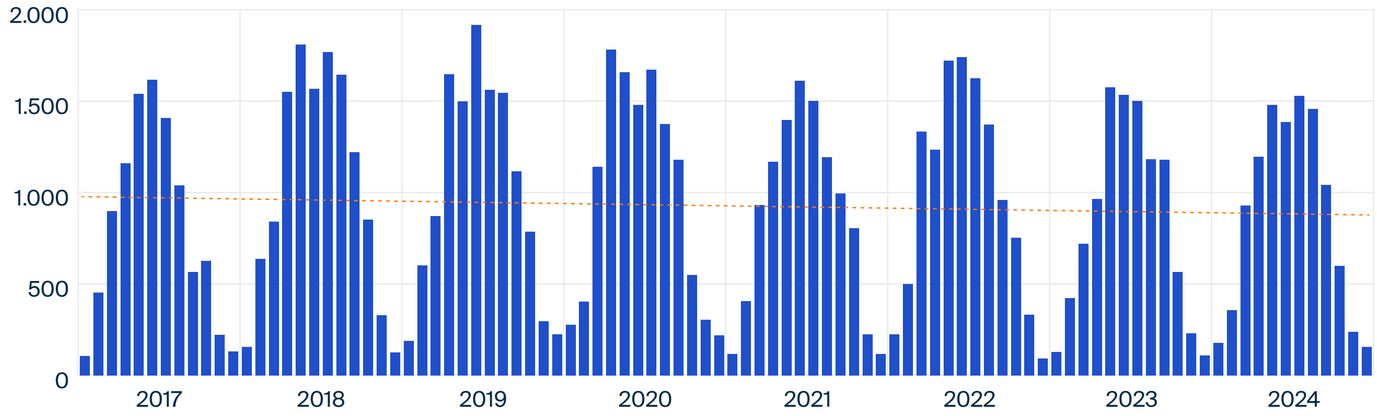
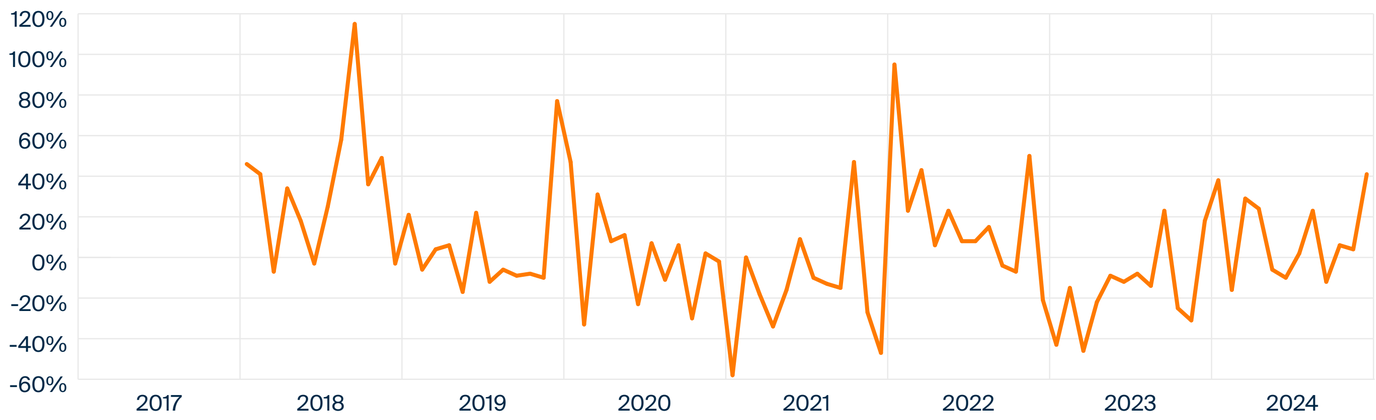


Chart 11. Yield change YoY (%)



5. Carbon offset

The carbon offset estimated for the current portfolio is around 3,9 million kg CO2 on average on an annual basis. We assume 1,400 Mt annual avoidance of CO2 per MWp installed capacity for Solar PV and 2,800 Mt annual avoidance for 1 MWp installed on-shore wind as reported by IEA.

The offset directly follows kwh generated from time to time. The potential for CO2 avoidance depends on the status quo of the development portfolio and is shown in the following table for each cohort of expected completion lead times.

Compared to the previous report the total potential offset remained the same. There was no change in the development portfolio, which has a large influence on the potential of the CO2 avoidance. In the previous report for the third quarter 2024, an increase of 19% was indicated from 930,580 Mt to 1,110,760 Mt compared to reporting before that. We maintain the potential avoidance at these levels.

Please note that the development portfolio and therefore the potential of CO2 avoidance is highly dynamic. The projects reflected in the development portfolio are subject to many factors which increase or decrease viability of a project to fully develop, if at all. Table 3 shows the potential avoidance if the entire portfolio would come to full development. Please refer to the next section for further information with regard to the development portfolio.

Table 3. Avoided and potentially avoided CO_2 emissions

Project name	Current	<12m	>12m <36m	>36m
unit	Mt avoided	Mt avoided	Mt avoided	Mt avoided
SKW 2	5.180	–	–	–
SKW 5	420	–	–	–
SKW 6	420	–		
SKW 12	1.260	–	–	–
WKW [•]	–	35.280	–	–
SKW [•]	–	28.000	–	–
SKW [•]	–	–	–	70.000
SKW [•]	–	–	182.000	–
SKW [•]	–	–	–	154.000
SKW [•]	–	–	56.000	–
SKW [•]	–	–	84.000	–
SKW [•]	–	–	56.000	–
WKW [•]	–	–	13.440	–
SKW [•]	–	–	56.000	–
SKW [•]	–	–	84.000	–
SKW [•]	–	–	42.000	–
WKW [•]	–	–	–	47.040
SKW [•]	–	–	56.000	–
SKW [•]	–	–	–	–
SKW [•]	–	–	126.000	–
Total	**7.280**	**77.000**	**755.440**	**271.040**
Cummulative	**7.280**	**84.280**	**839.720**	**1.110.760**

6. Project development

A large part of the activities of the company entails the development of new projects, whether to operate or sell on the open market. Buyers of such projects depend on the stage which the projects are in, or specific stipulations attached to the development rights.

For strategic and financial reasons, the company develops its projects in partnerships. Main partner for development of solar and wind projects is W.E.B. Windenergie A.G. (WEB) from Austria. Projects under co-development with WEB are held in equal joint ventures.

For confidentiality reasons, the projects listed in the following tables are made anonymous. SKW stands for Solar Kraftwerke and WKW stands for Wind Kraftwerke.

Please note that development of energy projects is highly dynamic and depends on many factors, among which regulations, political situation and spatial planning progress. The portfolio is therefore dynamic, and projects may be delayed or abandoned, and new projects may be added. The projects shown here are shown as if the probability of full development is 100%. In reality that would not be the case and of several of the projects shown in the table above will most probably be abandoned or will be delayed pushing completion further out into a future time.

Current focus of development efforts is mostly directed towards Germany. In the UK the company is looking to reactivate the development activities together with its strategic partners. There are also some strong leads for projects in Poland and Denmark.

Table 4. current portfolio under development (kWp per stage)

Project name	Technology	Feasibility	Early stage	Late stage	Ready-to-build	Construction
unit	PV / Wind	kWp	kWp	kWp	kWp	kWp
WKW [•]	Wind					12.600
SKW [•]	PV		20.000			
SKW [•]	PV		50.000			
SKW [•]	PV	130.000				
SKW [•]	PV	110.000				
SKW [•]	PV	40.000				
SKW [•]	PV	60.000				
SKW [•]	PV		40.000			
WKW [•]	Wind		4.800			
SKW [•]	PV		40.000			
SKW [•]	PV		60.000			
SKW [•]	PV		30.000			
WKW [•]	Wind		16.800			
SKW [•]	PV	40.000				
SKW [•]	PV		9.800			
SKW [•]	PV	90.000				
Subtotals		**470.000**	**271.400**	**0**	**0**	**12.600**
Total						**754.000**

6. Project development

The company is also looking into setting up partnerships for the roll-out of battery storage projects. These activities are still in an early stage and are not shown here in this report.

For the next 12 months it is expected that around 40Mwp will reach grid connection. That equals some 6% of the current portfolio under development. These are solar projects which have the potential for a swift development process due to favorable factors specific for the project or local circumstances. If circumstances change this will impact the expected speedy development, if at all, of these projects. This also includes a wind park that is currently under construction and is expected to reach commercial operation during summer.

The majority of the portfolio under development is expected to be completed within the next three years; around 70% is expected to reach grid connection between 12 and 36 months. Generally speaking, solar projects can be developed faster than wind projects, due to stricter regulation.

Table 5. current portfolio under development (kWp per expected lead time, cohort in months)

Project name	**Technology**	**<12m**	**>12m <36m**	**>36m**
unit	PV / Wind	Mt avoided	Mt avoided	Mt avoided
WKW [•]	Wind	12.600	–	–
SKW [•]	PV	20.000	–	–
SKW [•]	PV	–	–	50.000
SKW [•]	PV	–	130.000	–
SKW [•]	PV	–	–	110.000
SKW [•]	PV	–	40.000	–
SKW [•]	PV	–	60.000	–
SKW [•]	PV	–	40.000	–
WKW [•]	Wind	–	4.800	–
SKW [•]	PV	–	40.000	–
SKW [•]	PV	–	60.000	–
SKW [•]	PV	–	30.000	–
WKW [•]	Wind	–	–	16.800
SKW [•]	PV	–	40.000	–
SKW [•]	PV	9.800	–	–
SKW [•]	PV	–	90.000	–
Total		**42.400**	**534.800**	**176.800**
Cummulative		**42.400**	**577.200**	**754.000**

6. Project development

During 2024 the company saw a significant change in the speeding up of several projects, as well as an increase in the total of MWp under development. Compared to previous reports total MWp under development increased with 30%. Also, the company marked several projects that became feasible with considerable positive outlook for their development. We maintain the outlook for this period report at these same levels. The table on the right shows the change compared to reporting earlier in the year 2024.

Table 6. change in portfolio under development (kWp per expected lead time, cohort in months)

Project name	<12m	>12m <36m	>36m	Total
	kWp	kWp	kWp	kWp
Current	42.400	534.800	176.800	754.000
Previous	12.600	158.000	407.000	577.600
Delta (kWp)	**29.800**	**376.800**	**-230.200**	**176.400**
Delta (%)	237%	238%	-57%	31%

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