

# BBGI CLEAN ENERGY 100 USD INDEX AND STRATEGY

*A BBGI Exclusivity since 1999*

February 2024

Annualized performance of  
**+9.58%** since 1999

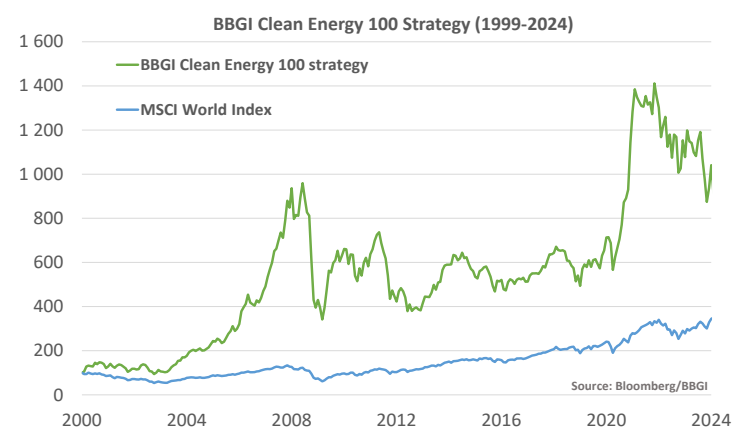
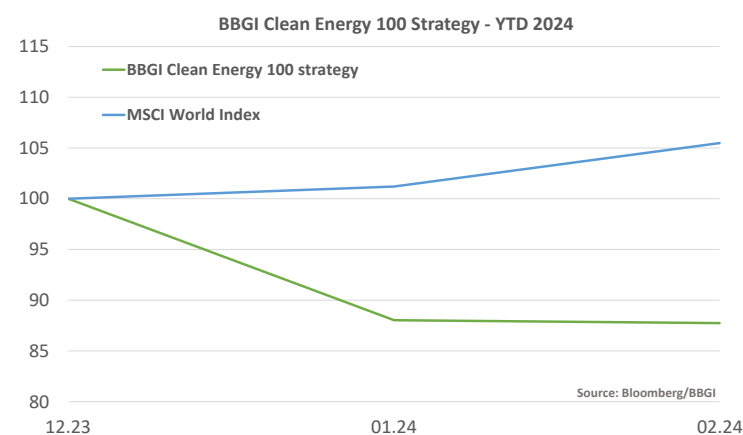
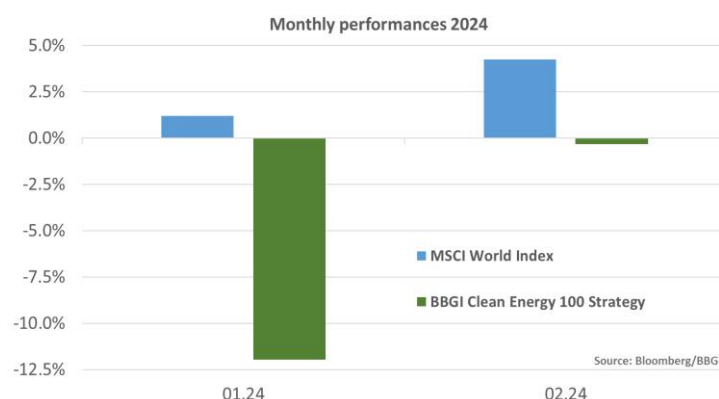
## New prospects for renewable energies in 2024

	Feb	YTD
<b>BBGI Clean Energy 100 strategy:</b>	<b>-0.32%</b>	<b>-12.25%</b>
<b>BBGI Solar Sector:</b>	<b>-0.48%</b>	<b>-17.63%</b>
<b>BBGI Wind Sector:</b>	<b>+4.34%</b>	<b>-5.76%</b>
<b>BBGI Biofuel Sector:</b>	<b>-0.29%</b>	<b>-14.87%</b>
<b>BBGI Energy efficiency Sector:</b>	<b>-1.49%</b>	<b>-10.16%</b>

As was the case in 2023, renewable energies are still one of the segments most sensitive to changes in interest rates.

Renewable energy stocks are once again being penalized by renewed tension over US interest rates. Indeed, three of the four segments that make up our Clean Energy 100 strategy fell slightly this month, but still showed a sharp reduction in their negative momentum. The energy efficiency segment fell by -1.49%, the photovoltaic industry by -0.48% and bioenergy by -0.29%. The wind power industry was the only segment to return to positive territory, growing by +4.34%. The high interest rate environment has been unfavorable for the entire renewable energy segment, and we have seen a strong negative correlation between yield levels and the performance of the industry as a whole. Although the theme is buoyant in the medium to long term, it has faced significant negative factors in the short term, which should normalize in the near future. Indeed, in the press release following the Federal Reserve's March meeting, Jerome Powell confirmed expectations of three consecutive rate cuts during the year.

We therefore believe that the downward trend is about to be reversed, and that new positive prospects will emerge for the renewable energies industry. The fundamentals remain very positive for this industry, which is supported by governments around the world. We expect this trend reversal to see the concrete effects of government investment plans such as Fit 55 and the Inflation Reduction Act in the USA.



The systematic diversified strategy of the BBGI Clean Energy 100 Index has produced an annualized return of +9.58% since 1999 against +5.63% for the MSCI World

# Comments by sector:

## Solar: -0.48%

Deliveries by solar inverter manufacturers Enphase and SolarEdge stagnated in the second half of 2023, amid a slowdown in the residential sector in the USA and Europe, leaving SMA Solar with the fastest sales growth in 2023. The increase in solar demand could lead to a recovery in revenues in the second half of the year and continue into 2025, which could offset short-term challenges. After a year of supply chain constraints, Germany's SMA Solar is an exception, with fourth-quarter deliveries likely to increase by more than 50%, although we note that the pace of growth could slow if orders do not improve. Enphase's inverter deliveries fell by over 45% sequentially in Q4 to around 850 megawatts, compared with 1.6 gigawatts in Q3, although we believe the company could return to growth in H2 as inventories normalize, probably at a faster pace than its competitor SolarEdge. Sales may have fallen to \$300-350 million in Q4, according to revised forecasts, and will probably be flat in 2023, given macroeconomic conditions in the USA and Europe. The tax benefits included in the Inflation Reduction Act have supported margin expansion. The adjusted gross margin could have exceeded 45% by 2023 and could increase further in 2024. Although the company only shipped around 85 megawatt-hours of batteries in the fourth quarter, a ramp-up in 2024 is possible as Enphase looks to increase production in the US and sell into new territories.

## Biofuel: -0.29%

Renewable diesel margins are under pressure from falling standard diesel prices and supply saturation. We observe that production projects achieve an IRR of around 30% at a level of \$1.50/\$1.75 per gallon, but this yield could fall to around 10% at a price level of \$1.25 per gallon. Input prices are also facing negative factors. Growth in renewable diesel production capacity is impacting on the quantity of feedstock available. Each gallon of biodiesel requires 8 pounds of fat or oil. Total production has reached 345,000 barrels per day in the USA, representing 42 billion pounds of feedstock. According to the IEA, this would represent almost all the feedstock available in the USA and 7% of the oil and fat available globally. The use of the Fischer Tropsch process could have a yield 3x higher than hydro procection but would result in a higher price of \$1 to \$4.

## Energy Efficiency: -1.49%

Hydrogen demand in the metallurgy sector, though low at present, could have the potential to grow significantly by 2030. Indeed, many of the industry's major players, such as Arcelormital, have already indicated their intention to use hydrogen as part of their strategy to achieve net zero by 2050. However, this adoption strategy is likely to take place in two stages. Initially, electric arc furnaces will be powered in the majority of cases (around 85%) by grey hydrogen, in this case derived from natural gas rather than renewable energies. The metallurgy industry has announced that it will use only 0.3 million tons of the green hydrogen produced by 2030, less than 1% of total planned production. These uncertainties add to the headwinds facing green hydrogen producers, who are struggling to find takers for their production capacity. Only 10% of the 47 million tons of forward production capacity has found a forward buyer. The metallurgy industry could change the future of this energy source if it were to commit to using hydrogen from renewable energy sources from the outset. We estimate that demand could rise to 5.4 million tons, or 11% of global production capacity. To achieve this, we need an accommodating regulatory framework that would facilitate the adoption of this energy source, as we have seen in Germany with the Carbon Contracts for Differences.

## Wind: +4.34%

Vestas' Ebitda recovered in 2023, crossing the €1 billion mark and could exceed €2 billion this year after a loss of €437 million in 2022. The company could see a rise in sales following the approval of the Equinor « Empire » wind farm contract, which designates it as preferred turbine supplier. Indeed, the accelerating pace of turbine deliveries coupled with easing steel prices should provide strong support for Vestas, which could see its revenue exceed 20 billion by 2025, compared with 16 billion in 2021. Margins are also on the way to normalization, with our estimates forecasting a return to a double-digit ratio of around 10% to 11% in 2024.

