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BBGI CLEAN ENERGY 100 USD INDEX AND STRATEGY

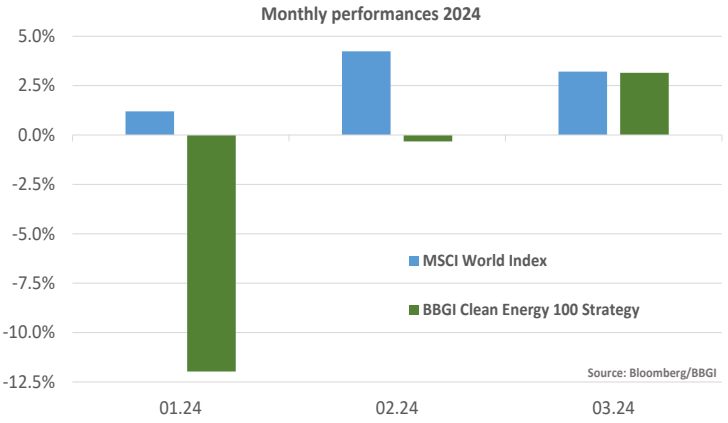
A BBGI Exclusivity since 1999

March 2024

Annualized performance of +9.69% since 1999

Renewable energies back on the rise

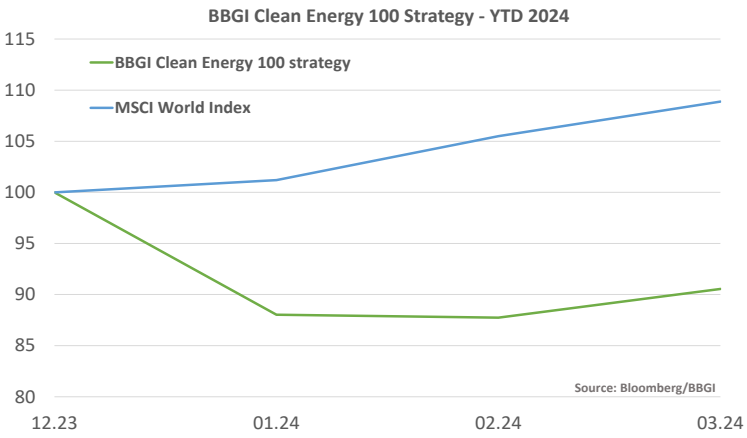
	March	YTD
BBGI Clean Energy 100 strategy:	**+3.15%**	**-9.49%**
BBGI Solar Sector:	**+6.33%**	**-12.42%**
BBGI Wind Sector:	**+2.42%**	**-3.48%**
BBGI Biofuel Sector:	**+3.92%**	**-11.54%**
BBGI Energy efficiency Sector:	**+1.22%**	**-9.07%**

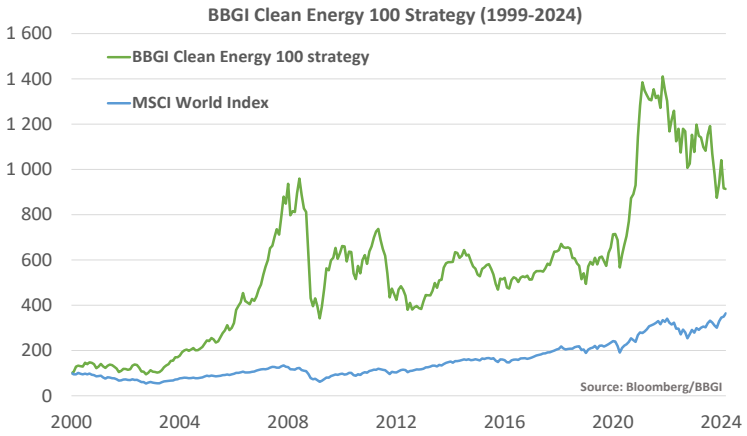


The renewable energies segment ended the first quarter with a positive performance, interrupting the downward trend of the last two periods.

Indeed, this month all 4 segments making up our Clean Energy 100 strategy are in the green. The photovoltaic industry turned in the best performance of the month, climbing +6.33%. Bioenergy followed a similar path, gaining +3.92% in March. Wind energy is also in positive territory, advancing by +2.42% this month. The energy efficiency segment is also in the black, posting a gain of +1.22%. Macro-economic news was positive in March. The return to a downward trend in inflation in the United States after an upward trend in January enabled the renewable energies segment as a whole to return to the upside. In addition, government support plans are beginning to bear fruit, particularly in the USA where the inflation reduction plan, which includes measures to stimulate the renewable energy industry, is benefiting certain companies.

In the photovoltaic sector, First Solar is the biggest beneficiary of this stimulus package. During the month of March, the company reported sales of 3.3 billion, an increase of +27% compared to 2023, and the photovoltaic module producer's order books are full until 2026. The tax credits granted under the Inflation Reduction Act can not only boost First Solar's profitability to reach a gross margin of 45% in 2024, which would be a record for this segment, but have also prompted Canadian Solar and Meyer Burger to relocate their manufacturing capacities to the USA.





The systematic diversified strategy of the BBGI Clean Energy 100 Index has produced an annualized return of +9.69% since 1999 against +5.77% for the MSCI World

Comments by sector:

Solar: +6.33%

The U.S. Inflation Reduction Act, rising energy prices, the third iteration of California's Net Energy Metering (NEM 3.0) network, and other favorable policies could push battery storage adoption rates above 50% quarterly for residential solar developer Sunrun. If the number of its customers remains constant, but 100% of them install a battery, sales could increase by around +40% - all other conditions being equal. If half of new customers add battery storage, sales could increase by +20%. Battery storage could help Sunrun and its peers exceed sales estimates. The percentage of Sunrun customers adding battery storage to their solar panels could exceed 50% this year, a figure that appears to be underestimated, despite favorable government policies that could boost sales growth to +10% from an estimated +1%. Even if the number of new customers declines, batteries could boost revenues, as they increase installation costs by around +50%. Sunrun's installation rate was 45% in Q4, almost double that of Sunnova and SunPower. Assuming that the number of customers falls by -7%, in line with estimates, and that 50% of them install batteries, sales growth could reach around +10%, compared with the consensus figure of 1%. In California, battery installation rates are 85%, with NEM 3.0 encouraging solar plus storage, which helps Sunrun (45% nationwide in Q4 vs. 16% in Q4 2022). Sunnova and SunPower could also see their sales increase after achieving attachment rates of 24% and 23% in Q4.

Biofuel: +3.92%

The growing imbalance between RIN supply and demand is creating concerns about renewable diesel margins, as market players fight for their share of the pie. Gross margins are forecast to remain below $1.25 per gallon as long as RIN production exceeds excess storage capacity. Shrinking margins compromise returns on investment, delaying new projects beyond 2026. Constraints on renewable diesel margins are forcing producers to put pressure on raw material prices. The availability of fats and oils is slowing the growth of renewable diesel, but political obstacles are also posing a brake this year, as carbon intensity-based tax incentives are due to change from 2025. It has been estimated that around 72% of the US supply of used oils and fats is destined for biofuels in 2023, compared with 43% for the blend of soybean oil and rapeseed oil.

Energy Efficiency: +1.22%

The best performer in our energy efficiency segment this month was Bloom Energy. The American firm active in the fuel cell segment achieved a spectacular gain of +25% over the period. Bloom Energy has developed a unique product range based on its solid oxide fuel cell technology, offering a baseload alternative to serve the power grid on a commercial and industrial scale. The competitive advantage lies in lower costs in the relevant energy markets, greater reliability, and faster commissioning time for a new installation. Its technology also offers options in the hydrogen field, as Bloom Energy's electrolyzer is among the most efficient on the market, and its fuel cells can also run on hydrogen. Although the company has seen solid revenue growth of +15% to +20% per annum in recent years, and there are visible opportunities linked to data center demand, growth in 2024 appears to be somewhat muted, requiring further clarity. However, the tax credits from which the company will benefit thanks to the Inflation Reduction Act, (US$75 million) will still most certainly support the company's development.

Wind: +2.42%

Offshore wind projects have development lead times that can stretch over ten years, meaning that many recently announced projects won't materialize until 2026-2030. After a slowdown in 2022 and a slight recovery last year, turbine sales are set to increase significantly in 2024-2025 for the five largest wind turbine manufacturers, namely Vestas, Goldwind, Siemens Energy, GE and Nordex. Vestas, the world's largest wind turbine manufacturer, is expected to post record revenues, with growth of over +10% in 2024. The offshore wind sector remains relatively modest, accounting for only around 11% of global capacity in 2023. However, if barriers such as costs, supply chains and permitting are overcome, policies such as the Inflation Reduction Act, REPower EU and carbon neutrality policies could drive growth in the offshore wind market this decade. Offshore capacity additions could exceed 20 gigawatts (GW) by 2024, and potentially reach over 40 GW by 2030 under the best conditions. Without significant growth in the offshore segment, the wind industry could struggle to maintain double-digit sales growth between now and 2026-2030.