

BBGI CLEAN ENERGY 100 INDEX AND STRATEGY

A BBGI exclusivity since 1999

January 2022

+12.32% annualized return since 1999

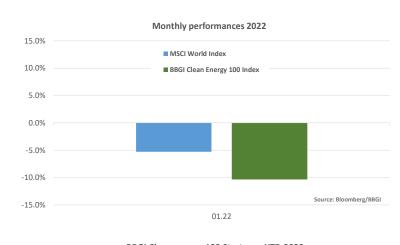
Renewables were not immune to the widespread profit-taking that occurred in January

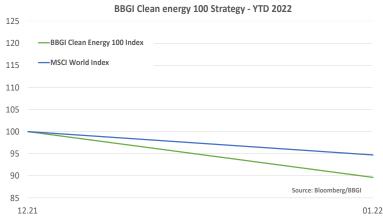
| | Jan | YTD |
|--------------------------------|---------|---------|
| BBGI Clean Energy 100 Index: | -10.34% | -10.34% |
| BBGI Solar Sector: | -12.18% | -12.18% |
| BBGI Wind Sector: | -8.69% | -8.69% |
| BBGI Biofuel Sector: | -3.21% | -3.21% |
| BBGI Energy Efficiency Sector: | -11.14% | -11.14% |

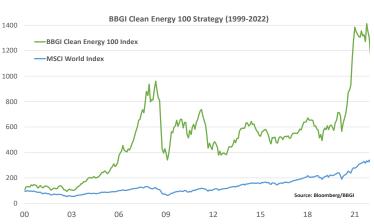
Investment climate:

The renewable energy sector did not escape the impact of the contamination that hit the equity markets during the first month of the year. Indeed, the BBGI Clean Energy 100 index fell by -10.34% in January. The Federal Reserve's changes in monetary policy continue to affect the broader equity markets, particularly those related to technology. The anticipated rise in interest rates, which increases the cost of borrowing, is seen as a major drag on the profitability of future projects. In our view, short-term investors are overestimating the decline in profitability and not taking into account the indirect non-financial added value that these projects represent. The fundamentals are still very good, the price of carbon credits in Europe is at all-time high and hydrocarbon energy sources are also becoming increasingly expensive. The price of both crude oil and natural gas continues to rise, which will motivate some manufacturers and power producers to move towards more environmentally friendly alternatives.

Carbon credit prices have been closely linked to natural gas prices over the past 12 months. Indeed, the increase in natural gas prices widens the existing gap with coal-fired power generation and supports its use. Natural gas prices have quadrupled over the year 2021 while coal use in power plants increased by +20% in December compared to the previous year. This growing coal consumption also increases the need for carbon credits for the companies operating these plants. Carbon credit prices have risen by 145% in 2021 and this momentum may be sustained over the coming year. These further movements could result in a higher carbon price than crude oil, which was \$92 per ton compared to the \$85 price per barrel in December. Recent geopolitical developments in Ukraine could in turn act as a catalyst for the upward development of carbon prices in 2022, which will continue to support renewable energy fundamentals for power generation and heavy industry over time.







The systematic diversified strategy of the BBGI Clean Energy 100 Index has generated an annualised return of +12.32% since 1999 compared to 5.45% for the MSCI World



Comments by sector:

Solar: -12.18%

The recent rise of more than 4x in natural gas prices over the last 12 months, as well as the current tensions between Ukraine and Russia, could motivate European legislators to accelerate their actions against hydrocarbons. We believe that renewable energies may be the fastest way out of Europe's dependence on Russian gas. Photovoltaic technology in particular is a promising alternative due to the very short installation time of its projects. Indeed, a new photovoltaic project started in the first quarter could be completed in December, a very short time compared to other low carbon alternatives. For example, the installation of a nuclear or hydrogen project, which have been identified by the UK as part of the net zero goals plan, can take up to 5 years to mature, so the number of solar installations in Europe in 2022 could increase by up to 25% compared to the previous year. At the same time, in China the growth of PV project installations will also follow an accelerating growth path in 2022. Approximately 75 to 90 gigawatts will be installed this year. China has a strong PV development program thanks to the state-owned companies active in the sector and Xi Jinping's plan to make use of the country's deserts. Through to 2025, installations are expected to reach around 85-100GW per year, eventually reaching 286GW, except for the overall expectation of 455GW needed to meet the COP26 targets.

Biofuel: -3.21%

Ethanol producing companies are now under pressure not only from electric vehicles but also from increasing competition from low carbon alternatives in the biofuel industry. Indeed, a growing number of markets, such as California, which has launched its Low Carbon Fuel Standard, are promoting low-carbon production biofuels or even renewable diesel. The growth of this type of market is expected in other American states such as Washington and Oregon, but also in Canada. This environment makes carbon capture facilities from the production of ethanol more attractive. In the US, the world's largest carbon capture system is under construction, the \$4.5 billion « Summit Carbon Solutions » project, which involves 31 production plants and 20 sole producers. Once operational in 2024, this solution could make US wheat ethanol more attractive than sugar cane ethanol produced in Brazil, which has lower carbon emissions.

Energy Efficiency: -11.14%

The best performing company in our energy efficiency sub-index is **Avista**, which saw its share price rise by +4.64%. In January, the US electrical infrastructure company entered into a partnership with GE Renewables energy to refurbish four of its generators at the Long Lake hydro site. At the end of its refurbishment, the facility will have more than 100MW of power generation capacity, enough to supply 80,000 homes. The goal of the restoration is to modernise the infrastructure and increase its efficiency as well as its integration into the EIM, a real-time energy trading system that allows any player in the western US to buy or sell electricity.

Wind: -8.69%

The sales of the industry's major European players Nordex and Vestas are not expected to accelerate much through 2024, but there is still room for improvement. Indeed, we still believe that net zero goals and high natural gas and oil prices will play a positive role in the industry's development in the medium term. The offshore segment of the wind energy market is developing rapidly, with the Scottish government providing loans for 17 offshore wind projects that will eventually account for 25GW of production, well above the 10GW planned. The UK is the second largest offshore market after China and is historically dominated by the two giants Siemens Gamesa and Vestas who have a 77% of the market share. The German Nordex, which has no offshore production line, will certainly be at a disadvantage. India also has untapped potential in terms of offshore wind energy production, the country has 7500km of coastline and has announced a target of 30GW of energy produced by 2030. With this in mind, India's Tata Power Renewable Energy and Germany's RWE Renewables have entered into a partnership to study various aspects of the Indian wind market to facilitate the establishment of production plants and supply chains in the country.

