

BBGI CLEAN ENERGY 100 INDEX AND STRATEGY

A BBGI exclusivity since 1999

February 2022

+11.94% annualized returns since 1999

The European geopolitical situation boosts the renewable energies sectors in February

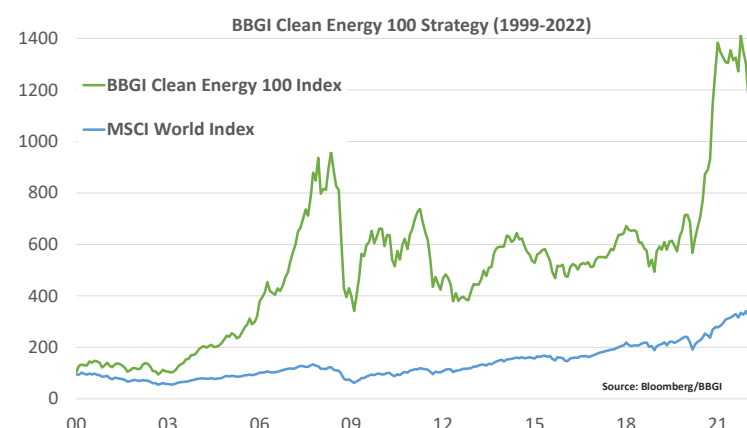
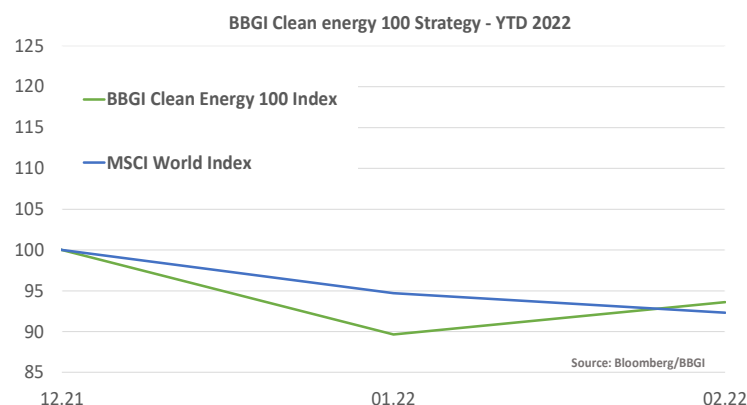
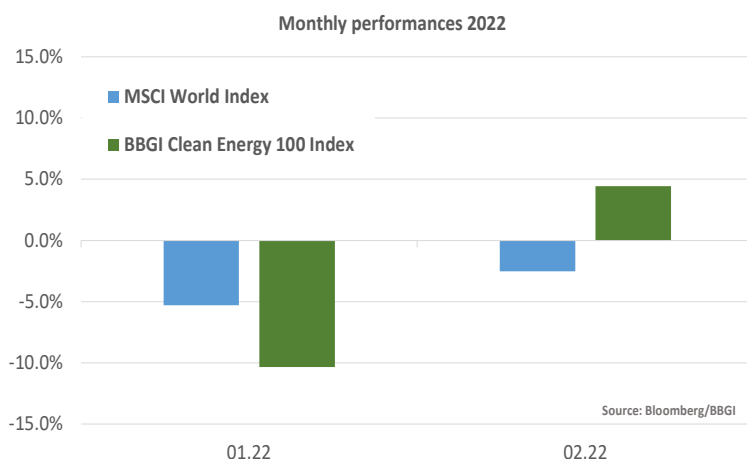
	Feb	YTD
BBGI Clean Energy 100 Index:	+4.43%	-6.37%
BBGI Solar Sector:	+3.91%	-8.74%
BBGI Wind Sector:	+9.20%	-0.29%
BBGI Biofuel Sector:	+6.88%	+3.44%
BBGI Energy Efficiency Sector:	+2.91%	-8.55%

Investment climate:

After three consecutive months of correction due to the rapid hike in US interest rates, the Clean Energy 100 index returned to a positive result in February (+4.43%). The Russian army's entrance into Ukraine on February 24th and the subsequent full-scale invasion exacerbated the already existing pressures on fossil fuel sources. The introduction of new and more drastic economic sanctions against Russia has driven up the cost of oil and gas, which are used to power most of Europe's electricity generation plants. Under this incentive, companies active in the production of renewable energies appear to be the most immediate way to overcome Europe's energy dependence on Russia. The bio-fuel and wind industries in particular saw their attractiveness increase sharply at the end of the month, with both sectors delivering impressive positive returns of +6.88% and +9.20% respectively. The solar sub-index is also reaping the benefits of this general dynamics embracing renewable energies and returned to growth (+3.91%), while the energy efficiency sector also followed the same positive path in February (+2.91%).

The significant increase in the price of carbon credits over the last few months has been temporarily interrupted by the conflict that broke out in Ukraine at the end of February. The relationship between carbon credits and the cost of natural gas is usually positive. However, the European legislators are likely to loosen the actual emissions regulations in the short term in order to protect Europe from the risks of any potential disruptions in the supply of Russian gas.

Economic tensions between Europe and Russia have intensified the problems associated with the European Union's energy independence, which could temporarily contemplate extending the lifespan of existing coal-based power plants, in order to support an industry which is threatened by the concerns of a decline in consumption. As a matter of fact, the price of carbon credits has already dropped by 10% since February 23rd, which could make it momentarily more appealing to generate electricity through coal.




The systematic diversified strategy of the BBGI Clean Energy 100 Index has generated an annualized returns of +11.94% since 1999 compared to 5.30% for the MSCI World Index.

Comments by sector :

Solar: +3.91%

In reaction to geopolitical and economical difficulties, the European Union could take the necessary actions to eliminate its dependence on Russian gas. This represents approximately 20% of the European energy mix and can be reduced to zero with considerable additional investment. An investment of **300 billion euros** in new solar and wind power facilities could be sufficient in an area where the use of traditional energies such as nuclear and coal remain at their current levels. If this plan becomes a reality, **solar power** could represent up to **10%** of the total energy production, which is more than **double** the current amount in the European energy mix.

To fully compensate for the production of electricity from gas-fired power plants, European PV installations will have to grow at a compound annual rate of +27.25% until 2025. This scenario seems plausible given the compound annual growth of solar projects in Europe of **+46%** over the period **2016-2021**. This massive investment would result in an addition of about 190GW of PV generation capacity on the continent by 2025. In addition, the sales of solar module manufacturers and other equipment suppliers are already expected to increase in the coming years.

The European energy crisis should strongly support this trend. Players such as **Jinko Solar**, **Longi** and **Canadian Solar**, which all expect sales volume increases of between **+30%** and **+40%**, are highly exposed to the European market and will be able to capitalize on this new development.

Biofuel : +6.88%

The companies that have chosen to produce renewable diesel have proven the profitability of this market. Margins for producers are expected to range from **\$2 to \$3.20** per gallon for the years 2022 to 2023 depending on the feedstocks used. This type of diesel with a very low carbon footprint remains **1.5x** more expensive than its alternatives due to higher raw material and transportation costs than standard diesel. Regardless of the reduction in carbon emissions that this type of fuel brings, the consumer is generally held back by such a price difference.

This is why, for the time being, credits such as the "**Blender tax credit**" or the Californian "**Low Carbon Fuel Standard**" are indispensable to sustain the expansion of the bio diesel market. In the medium term, the attractiveness of this fuel should attract competition and could put pressure on the margins of producers who will have to be flexible in their choice of raw materials to mitigate this pressure and safeguard their margins. Smaller structures could be favored by their agility and their ability to take advantage of the arbitrations that sporadically appear on the raw materials market.

Energy Efficiency: +2.91%

The best performing company in the energy efficiency segment in efficiency segment in February is the American company Bloom Energy, whose share price has taken a spectacular leap forward (+47.21%). This extraordinary performance is due on the one hand to the announcement of good results for the fourth quarter of 2021 and on the other hand to the general dynamics that supported the renewable energy market during the month. Bloom Energy's results showed a record of project delivery that exceeded consensus. Indeed, Bloom Energy's EBITDA was \$19 million on revenues of \$342 million against a consensus of \$17 million and \$310 million. The gross margin is also up and above expectations (21.2% against 19.4%). Bloom Energy also ended the year with a solid increase in its order book (+94% compared to 2020), 655MW of power generation systems which includes the agreement reached with SK Eco plant of a 450MW power plant.

Solid oxide fuel cell technology can convert hydrogen or natural gas into electricity as efficiently as gas turbines, but in a much smaller, configurable format. This technology is expected to be competitive with the conventional power grid by 2030 due to the company's growth potential and the trend of increasing installations.

Wind: +9.20%

The wind energy sector, like the solar energy sector, was greatly supported during the month of February. Europe could greatly accelerate the pace of its installations in order to increase its energy independence and get closer to its goal of carbon neutrality. To compensate for the potential loss of natural gas by 2025, it would be necessary to increase the rate of installations in Europe by +11.5%. A scenario that seems feasible if we take into account the increase in the pace of installations that the largest players like Vestas, Siemens Gamesa and Nordex have experienced between 2017 and 2020 of +17%. Approximately 82GW of wind energy would be installed if this scenario were to materialize and represent 10% of the whole energy mix of the European continent..

