

BBGI CLEAN ENERGY 100 USD INDEX AND STRATEGY

A BBGI Exclusivity since 1999

August 2022

Annualised performance of
+11.04% since 1999

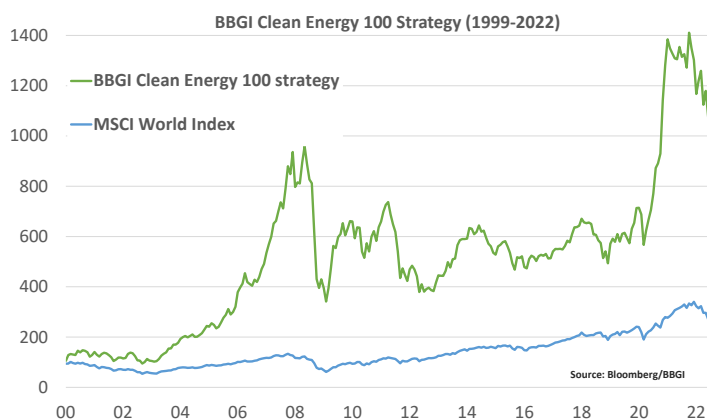
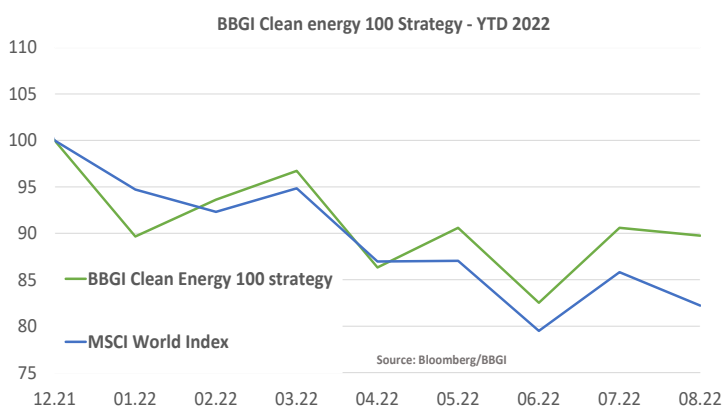
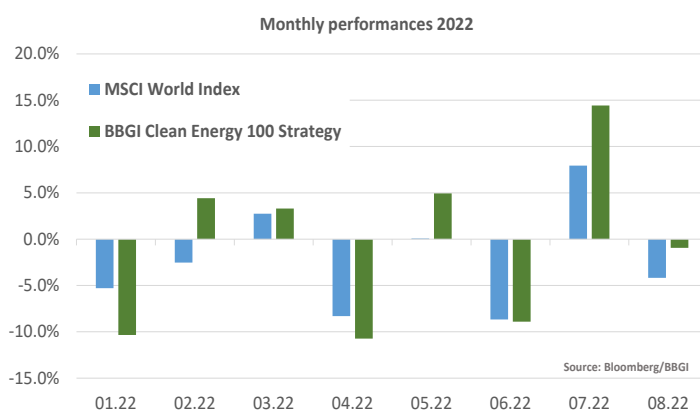
Renewables more resilient in downturn

	August	YTD
BBGI Clean Energy 100 strategy:	-0.94%	-10.26%
BBGI Solar Sector:	-0.47%	+5.13%
BBGI Wind Sector:	-1.49%	-7.14%
BBGI Biofuel Sector:	+1.55%	+0.68%
BBGI Energy efficiency Sector:	-1.00%	-14.60%

The major event that will have a lasting influence on the development of the various renewable energy industries was the signing of the inflation reduction act in the United States on 16 August. This massive investment plan was greeted with a sigh of relief by all renewable energy players after the rejection of the "Build back better" plan. The watered-down "inflation reduction act" still provides for just under 400 billion US dollars of investment in the ecological transition over the next 10 years. Add to this the "RePower EU" energy independence plan established in Europe, we can see that economic support from governments has reached an unprecedented level.

Indeed, the war in Ukraine could act as a catalyst to finally set in motion a sustainable transition towards a generalised renewable energy production mode. The solar industry sector will obviously be one of the favourites to implement this profound reorganisation of energy production, as it is already the cheapest means of production and has the shortest installation time for a new project. The sector is on track for a +50% sales growth in 2022 despite the price increase due to the pressure on the cost of various raw materials.

This month our index is down very slightly (-0.94%), suffering from the negative dynamics of international stocks. The wind energy sector fell by -1.49%, the solar industry moved horizontally (-0.47%) while energy efficiency lost -1.00%. Only the bio-energy industry performed positively in August, gaining +1.55%. However, the Clean Energy 100 strategy was more resilient (-0.94% in August and -10.26% YTD) than traditional international equity exposures, which fell more sharply this month (-4.18%) as well as since the beginning of the year (-17.58%).



The systematic diversified strategy of the BBGI Clean Energy 100 Index has produced an annualised return of +11.04% since 1999 against +4.49% for the MSCI World

Comments by sector:

Solar: -0.47%

After an extraordinary performance in July, the photovoltaic industry experienced a very slight downturn in August, losing -0.47%. European energy costs have reached record highs recently, a bullish dynamic that will prove beneficial for solar energy. Indeed, companies like Enphase or SolarEdge and their peers could see their sales above consensus forecasts for 2023, supported by rising gas prices in Europe. Solar power, which has been cheaper to produce than some hydrocarbons for some time, will benefit further from the widening gap with conventional power generation in some European countries. The wholesale price of electricity in Germany, for example, has reached a level 4x higher than the levelised cost of solar energy. It is therefore very likely that in the future, photovoltaic power generation will become the means of choice in countries that have been most affected by rising energy costs. The full-cycle cost of a solar project in Germany is 55 euros per megawatt hour, a figure that only increases to 115 euros per megawatt hour when the infrastructure is coupled with a battery energy storage system. This is much lower than the 500 euros per megawatt/hour reached in Germany in August. Solar Edge, for example, delivered 251 megawatt hours of storage in the second quarter, which is more than double the amount achieved in the first quarter, and we expect this momentum to continue in 2023 given the company's large exposure in Europe.

Biofuel: +1.55%

The future of the bioenergy industry is under pressure. Although it is an effective way of reducing the carbon impact of some forms of transport, it is being challenged by the steady advance of electric motor technology and by the constant pressure from legislators regarding the carbon intensity of biofuel production. Indeed, a growing number of markets such as California are favoring low-carbon biofuel production methods either through the feedstock used (Brazilian sugarcane ethanol) or through carbon capture systems at the production sites. For this reason, the number of carbon capture projects in the US has increased significantly during 2022. The largest projects to date are the **Heartland Greenway** and the **Midwest Carbon Express**, which are CO2 pipelines under construction that could generate nearly **\$600 million per year over 12 years in tax credits and sequester about 24 million tons of emissions per year**. So far, the projects include 31 ethanol plants and 20 producers, including **Greenplains**, which will benefit greatly in competitiveness from these projects being put online.

Energy Efficiency: -1.00%

The best performer in the energy efficiency segment is the **American company Plug Power**, whose share price rose by 31% in August. Indeed, despite second quarter figures showing some difficulties and slightly underperforming consensus expectations, the announcement of the ratification of the massive investment plan "**Inflation reduction act**" is synonymous with very good news for the American hydrogen sector. The plan provides for the introduction of tax credits for hydrogen production projects, an unprecedented step on the road to developing this technology, which could eventually decarbonise the industrial sectors most dependent on hydrocarbons. The subsidies will be up to 3 dollars per kilo of hydrogen produced for projects based on 100% renewable energy. Thanks to this new mechanism, we can see that hydrogen produced in the United States could be the cheapest in the world and fall below the ambitious 1 dollar per kilo target imposed by the US Department of Energy and potentially even reach a negative cost of production. The United States will then become the world leader in publicly financed hydrogen, which will greatly benefit companies such as Plug Power, which will see its path to profitability greatly shortened (2023-2024 according to the consensus) and will reach 500 million EBITDA by 2025 thanks to its international partnerships (Renault, SK Group).

Wind: -1.49%

In a move towards greater energy independence, the UK is relying on wind power to meet some of its energy needs. Indeed, the government plans to simplify the permitting process for wind projects, which will further strengthen its status as the offshore market leader with over 8 Gigawatts currently under construction. With rising wholesale energy prices not sparing the UK, the attractiveness of both offshore and onshore projects has been enhanced. The production cost of an onshore project is **£50 per MW/H and £70 for an offshore project**. In comparison, the discounted cost of electricity reached **650 pounds** in August. This momentum will support the development in the country through companies like Vestas or Nordex.

