SOLR

The SmartETFs Sustainable Energy II ETF

August 2022 Update

SmartETFs

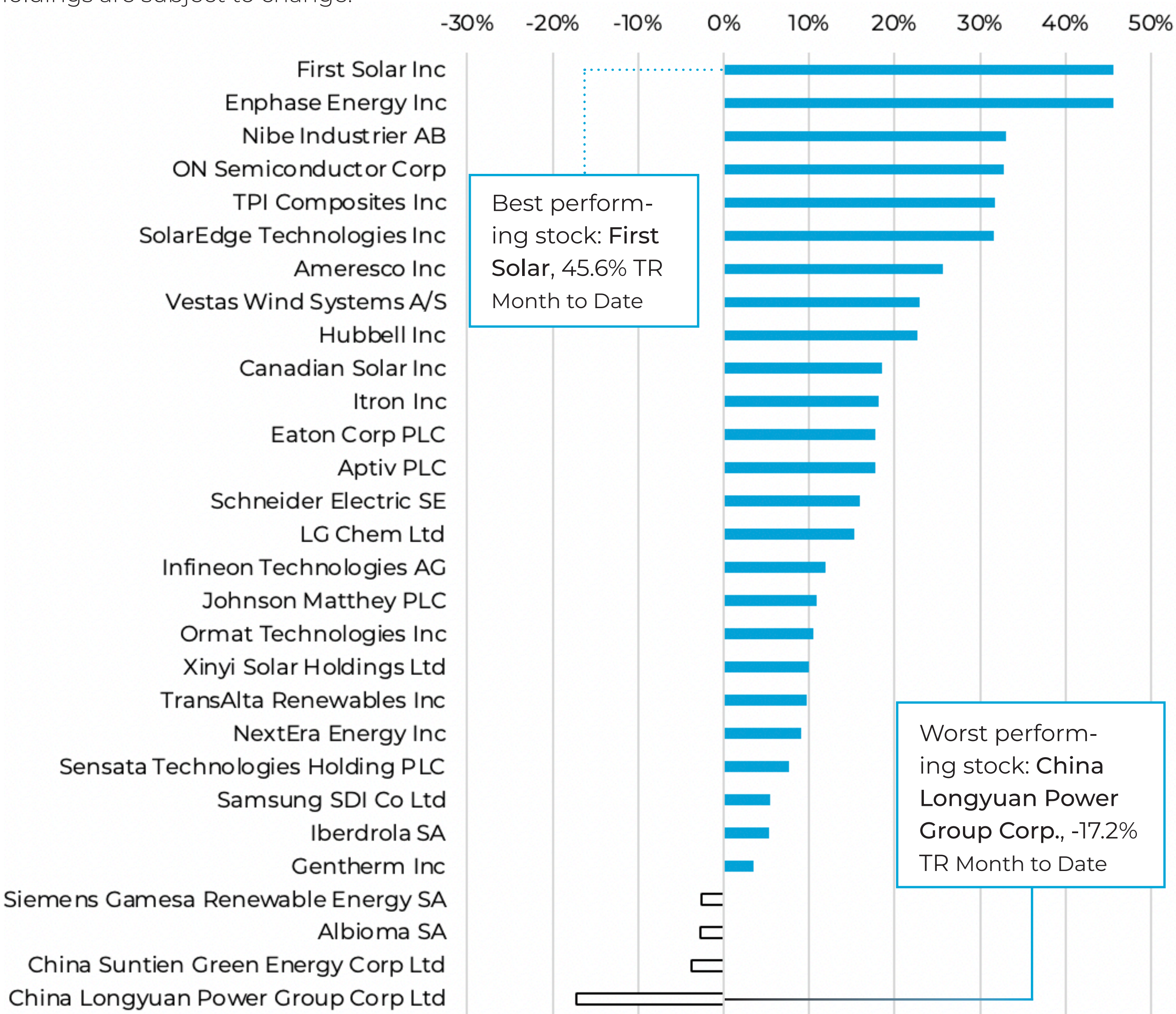
Portfolio Performance

as of 7/31/2022

SOLR produced a total return of 14.11% on a net asset value basis (14.65% market basis) in the month of July. The Fund's performance was led by the efficiency and equipment sub sectors while generation and battery names were underperformers.

After months of Joe Manchin blocking the Build Back Better bill from passing, the West Virginia Senator and Senate majority leader, Chuck Schumer, announced a reconciliation deal in July. The rebranded and revamped "Inflation Reduction Act of 2022" reserves $369bn in support for energy security and climate change. Beginning on page 4, we explore how this support will be primarily delivered via Production and Investment Tax Credits which have helped to drive the US wind and solar industries to date. If passed, we would view this package as broadly positive for the US clean energy sector, benefitting many names held SOLR.

Holdings are subject to change.



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Portfolio Performance

As of 7/31/2022	1 Month	6 Months	YTD	1 Year	Since Inception (11/11/20)
SOLR at NAV	14.11%	1.28%	-10.81%	-8.18%	10.28%
SOLR at Market Price	14.65%	1.17%	-10.19%	-7.76%	11.84%
MSCI World NR	7.94%	-9.40%	-14.19%	-9.16%	12.23%

As of 6/30/2022	1 Month	6 Months	YTD	1 Year	Since Inception (11/11/20)
SOLR at NAV	-9.24%	-21.84%	-21.84%	-18.39%	2.24%
SOLR at Market Price	-9.33%	-21.67%	-21.67%	-18.63%	3.46%
MSCI World NR	-8.66%	-20.51%	-20.51%	-14.34%	3.98%

Expense Ratio: 0.79% (net) | 2.84% (gross)

The Adviser has contractually agreed to reduce its fees and/or pay ETF expenses in order to limit the Fund's total annual operating expenses to 0.79% through June 30, 2025.

Performance data quoted represents past performance and does not guarantee future results. The investment return and principal value of an investment in the Fund will fluctuate so that an investor's shares, when redeemed, may be worth more or less than their original cost. Current performance of the Fund may be lower or higher than the performance data quoted. Performance data current to the most recent month-end may be obtained by visiting SmartETFs.com, or calling (866) 307-5990. The returns shown are cumulative for the period, not annualized. Market prices return is based on the market price of Fund shares as of the close of trading on the exchange where the shares are listed.

Interesting News

- CleanTechnica reported that June saw record electric vehicle sales around the globe, reaching 913,000 units, increasing 54% from June 2021. In the month, plug-in vehicles represented a 16% share of the overall automotive market with Battery Electric vehicles (BEVs) themselves reaching 12% share.

- The EU called on members to immediately slash gas use, warning that without increased conservation, the continent risks running short of the fuel this winter as Russia restricts supplies. The European Commission will provide member states with voluntary gas reduction targets which may be made mandatory in the event of severe disruptions to supplies. Efforts to restrict gas consumption could involve limiting central heating and cooling in buildings, exempting coal-fired power stations from emissions reduction targets, and auctioning gas to industry.

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Interesting News

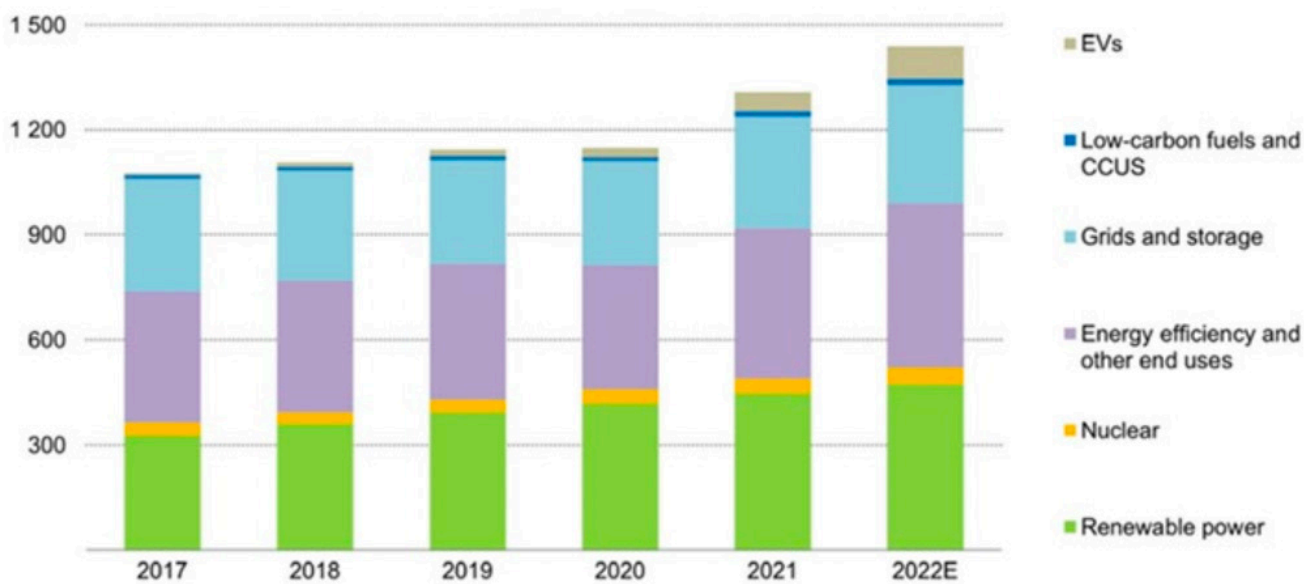
- The French government is planning to fully nationalize EDF, buying out the 16% stake it does not currently own. The state is offering to pay €9.7bn for the nuclear specialist (€12 per share) in order to shore up the company's finances amid the current energy crisis. EDF has struggled with outages in recent months, which have forced France to pay up for expensive energy imports as Europe attempts to move away from Russian gas.

- Chinese solar installations nearly doubled in the first half of 2022 according to the China Photovoltaic Industry Association. Around 31GW of new solar power capacity was built between January and June 2022, up 137% from 2021. This brought the country's total solar capacity to 340 gigawatts (GW). Installations are expected to break records again in 2022 at 75-90GW, up from a peak of 54.9GW in 2021.

- The Greater London Authority (GLA) announced that the grid has run out of capacity to power new homes in west London. This could mean that developers may be prevented from starting projects in Hillingdon, Ealing and Hounslow until grid capacity can be increased, which may take until 2035. The GLA blamed pressure on the grid being exacerbated by a number of energy intensive data centers being built in recent years.

- Global clean energy investment in 2022 is expected o be around $1.4tn and growing. Clean energy represents around 55% of total annual energy investment and 75% of the total growth in 2022. According to the International Energy Agency (IEA), this needs to increase to an estimated $4.5trillion/year in order to limit global warming to 1.5 degrees.

Annual Clean Energy Investment (USD in billions)



Source: IEA, Guinness Atkinson Asset Management

Hope Remains for a US Climate Stimulus Package

This month, we discuss Senators Joe Manchin and Chuck Schumer's proposed Inflation Reduction Act of 2022, its potential $369bn in support for energy security and climate change in the US, and the sectors that are set to benefit if it can be passed in the Senate.

In the US, the big will-they-won't-they question over whether the Build Back Better (BBB) bill will be passed has seen a fresh injection of excitement. After initially being a key Democratic hold-out, Senator Joe Manchin surprised Senate Republicans (and his own party) by striking a deal with Senate majority leader, Chuck Schumer, to advance a package of clean energy incentives. Up to this point, Manchin had opposed the bill on the grounds that it would fuel soaring inflation. The centrist Democratic Senator from West Virginia, a top US state for coal and gas production, also wanted to ensure the bill did not negatively impact the fossil fuel industry. Manchin announced that the bill has been rebranded from the Build Back Better bill to the Inflation Reduction Act of 2022.

The stated aims of the Inflation Reduction Act of 2022 (the Act) are to:

- Reduce the deficit to fight inflation;
- Lower energy costs while incentivizing clean energy production and promoting a 40% reduction in carbon emissions by 2030;
- Allow Medicare to negotiate drug prices and caps out-of-pocket costs to $2,000;
- Lower healthcare premiums;
- Make the biggest corporations and ultra-wealthy pay their fair share of tax; and
- Close tax loopholes and improve enforcement of the tax code.

Top-line estimates for the Inflation Reduction Act of 2022

Total Revenue Raised	**$739 bn**
15% Corporate Minimum Tax	$313 bn
Prescription Drug Pricing Reform	$288 bn
IRS Tax Enforcement	$124 bn
Carried Interest Loophole	$14 bn
Total Investments	**$433 bn**
Energy Security & Climate Change	$369 bn
Affordable Care Act Extension	$64 bn
Total Deficit Reduction	**$306 bn**

Source: Guinness Atkinson Asset Management estimates

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Hope Remains for a US Climate Stimulus Package (continued)

The $369bn package targeting climate and energy security focuses on reducing emissions from electricity generation, transport, industrial manufacturing, buildings, and agriculture by providing:

- Financial support for clean sources of electricity and energy storage;
- Tax credits and grants for clean fuels and clean commercial vehicles;
- Grants and tax credits to reduce emissions from industrial manufacturing processes;
- Funding for US-made clean products; and
- Funding to reduce emissions in disadvantaged communities and from leaks from natural gas production and distribution.

It appears that many of the measures discussed in the BBB bill have been carried over into the Inflation Reduction Act. At a high level, support for the US renewable energy industry will be facilitated by the Investment Tax Credit (ITC), the Production Tax Credit (PTC), and a support package for clean transportation which are discussed in more detail below.

Investment Tax Credit (ITC)

The ITC was first implemented in 2006 and has helped to spur the nation's solar industry, allowing companies and consumers to reduce their tax bill by a percentage of the cost of the installed solar system. From an initial level of 30%, the ITC stands at 26% through 2022 and is set to fall to 22% in 2023 and to 10% in 2024 and beyond (only for commercial customers). The proposed Act would provide a 10-year extension of the ITC, restoring the credit to 30% through 2032, before stepping it down to 26%/22%/0% in 2033/34/35. It provides additional 10% "bonus" credits for systems installed in low-income communities or systems where over 40% of the iron, steel, or manufactured components are sourced domestically. This implies that certain projects could qualify for up to a 50% ITC. For the first time, the ITC will also be made eligible for stand-alone energy storage, heat pumps, and water heaters.

Recent History of the Investment Tax Credit

Source: U.S. Internal Revenue Service

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Hope Remains for a US Climate Stimulus Package (continued)

Production Tax Credit (PTC)

The PTC was first enacted in the Energy Policy Act of 1992 and has helped drive significant growth in the US onshore wind industry. It was initially set to lapse in 1999 but has since been extended 12 times. The tax credit amount is based on 1.5c/kilowatt hour (kWh) in 1993 dollars, and is inflation adjusted annually. The new Act could see a 10-year extension of the PTC (previously set to be phased out by 2023) set at an amount of around 2.6c/kWh, which would continue to be adjusted with inflation. The Act also extends the PTC to include both nuclear and hydrogen production (3c/kWh and up to 60c/kilogram (kg) respectively) alongside incentives to develop a domestic clean energy supply chain including $3/kg for polysilicon, 4c/watt for solar cells, 7c/watt for solar modules, $35/kWh for batteries, 2c/watt for wind blades, 87c/watt for tracker torque tubes and a range of 2.5-11c/watt for inverters. The same 10% bonuses for installations in lower income communities and local content would also apply to the PTC.

Support for Clean Transportation

The Act includes provisions for the purchase of battery electric vehicles (BEVs) and fuel-cell electric vehicles (FCEVs). Consumers that earn less than $150,000 per year could receive a $4,000 tax credit to buy a second-hand BEV/FCEV, increasing to $7,500 for a new BEV/FCEV. The Act would remove the 200,000 electric vehicle tax credit limit, making Tesla and GM eligible again. There are provisions for $3bn in funding for zero-emission equipment and technology at ports; $1bn for clean heavy-duty vehicles (e.g. buses); $2bn in grants to help transition auto manufacturing facilities into electric vehicle factories; and $20bn of loans for new clean vehicle manufacturing facilities. The Act also encompasses continued support for alternative fuels, including the extension of the $1/gallon Biodiesel Blenders Tax Credit (BTC) through to 2024. Beyond 2024, a new Clean Fuel Producers Credit (CFPC) would be introduced (initially for 2025-27), providing up to $1/gallon credit for domestically produced biofuels. Both the BTC and CFPC have specific carve outs for sustainable aviation fuel, resulting in a credit of $1.25-1.75/gallon.

Getting Manchin onboard is a hugely positive step, but the Act's future is still precarious. Schumer cannot afford to lose a single vote among Senate Democrats and the House speaker, Nancy Pelosi, can only afford to lose a few Democratic votes in the House. On top of this, COVID continues to add to the drama, keeping some Senators out, and the Act needs to be passed at pace or risk being picked apart by lobbyists. If all goes smoothly, House Democrats may hold a vote on the package in mid-August. If passed, the Act would be a material positive for most subsectors owned within the fund e.g. energy efficiency products, electric vehicle component suppliers, solar module manufacturers, wind blade manufacturers and renewable energy generators.

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