What's Fueling the Rise in Green Energy ETFs?

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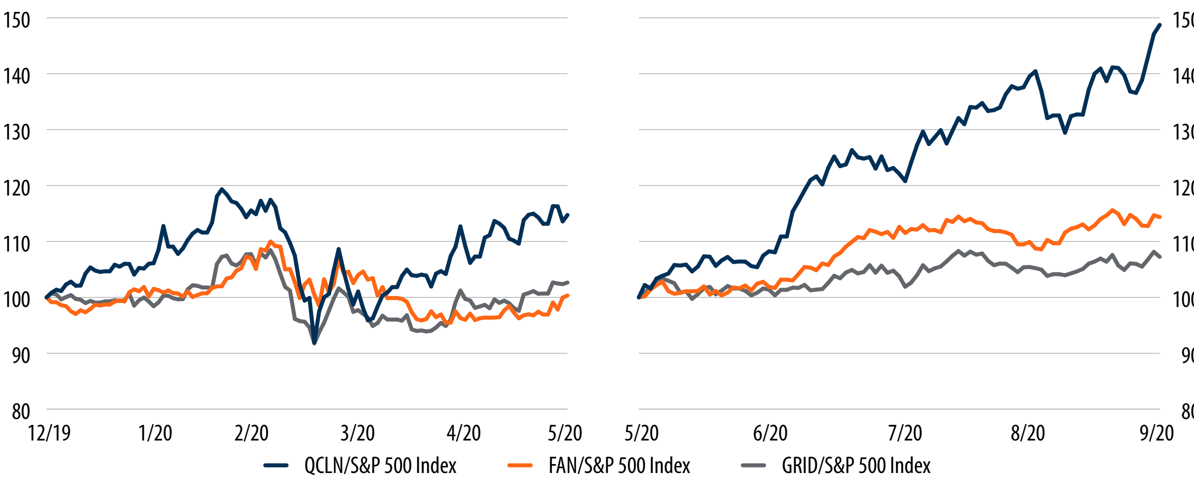
Green and renewable energy ETFs have performed exceptionally well so far this year, with the majority of outperformance coming after May. At a base case level, we believe that investor sentiment toward this investment theme may be reflecting the shifting outlook (a Biden win) for the upcoming US elections, which could have a significant impact on the industry. Beyond November's election results, we expect the US—along with other countries—to enact sizeable fiscal stimulus that targets green energy projects. Over the long-term, we believe favorable changes in public opinion and economic fundamentals are likely to benefit the industry, as costs relative to traditional energy sources have declined dramatically. In our view, these developments may help fuel robust performance for the green and renewable energy theme in the years ahead.

Political Tailwinds for Green Energy?

During the first five months of 2020, three First Trust ETFs focused on green and renewable energy—the First Trust NASDAQ® Clean Edge® Green Energy Index Fund (QCLN), the First Trust Global Wind Energy ETF (FAN), and the First Trust NASDAQ® Clean Edge® Smart Grid Infrastructure Index Fund (GRID)—performed relatively well compared to the S&P 500 Index (Chart 1). However, relative performance for these ETFs accelerated from June through September.

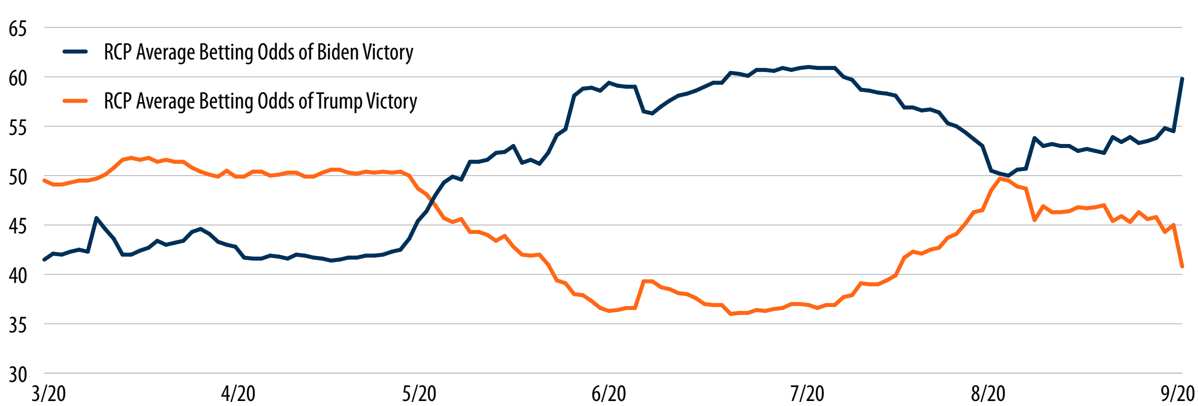
Chart 1: Price Performance Relative to the S&P 500 Index (12/31/19 – 9/30/20)



Source: Bloomberg.

In our view, one factor that may help to explain the outperformance of these ETFs since May is the improving odds that Joe Biden could win the US presidential election. While President Trump led in the Real Clear Politics (RCP) average betting odds at the end of May, odds had moved decisively in Biden's favor by the end of June (Chart 2). Biden supports reducing US emissions through substantial investments in green initiatives, outlined in a $2 trillion climate plan unveiled earlier this summer. While performance of green and renewable energy ETFs may be driven by election expectations in the near-term, we believe two important factors may drive long-term growth for this theme: public-sector investments—accelerated by COVID-19 stimulus—and improving affordability.

Chart 2: Real Clear Politics 2020 Presidential Election Average Betting Odds (3/31/20 – 9/30/20)



Source: Bloomberg.

Past performance is not a guarantee of future results and there is no assurance that the events or improvements mentioned herein will continue. Please see standardized performance elsewhere in this newsletter.

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The Green Coronavirus Response

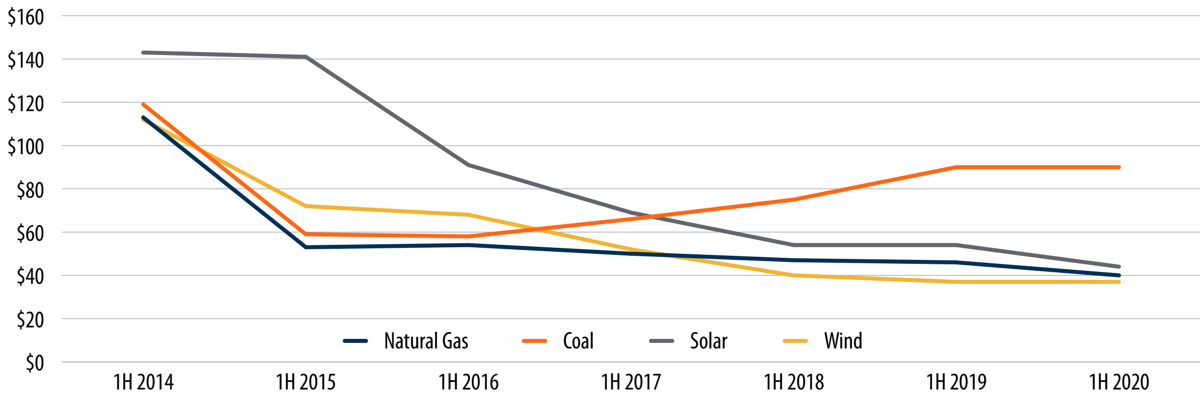
To revive economic growth in the wake of the COVID-19 crisis, governments around the world are planning to commit trillions in fiscal stimulus to this effort, much of which is going toward clean and renewable energy projects. In July, the European Union passed an economic stimulus package and long-term budget which included more than €500 billion for renewable energy and related uses.[1] Europe already has ambitious emissions targets on the horizon such as carbon neutrality by 2050[2] and a significantly higher renewable energy generation by 2030.[3] These commitments are likely to result in elevated investment in new energy beyond the coronavirus pandemic, in our opinion.

Environmental initiatives are also being targeted with stimulus spending outside Europe. Earlier this year, China announced it will invest $1.4 billion in electric vehicle charging and renewable energy plants[1] and is reportedly considering greater emissions cuts and additional green spending.[4] President Xi Jinping has even publicly urged nations to undertake a greener economic recovery.[5] Although there remains a high degree of uncertainty surrounding additional fiscal stimulus in the US, funding for clean energy has been a prominent component in proposed recovery packages thus far.[6] Given the political willingness for direct spending on green initiatives, we expect fiscal tailwinds to remain in the years ahead.

Cost Reductions Fuel Transition to Renewable Energy

While it took many years to get here, renewable energy has reached a tipping point, becoming economically competitive with traditional energy sources such as coal and natural gas. Advances in manufacturing have resulted in solar module prices falling roughly 80% since 2010, while the cost of electricity generated by wind power has fallen approximately 30-40%[7] due to efficiencies in energy storage and transmission. Today, the unsubsidized cost of wind and solar power is less than that of coal, according to Bloomberg.

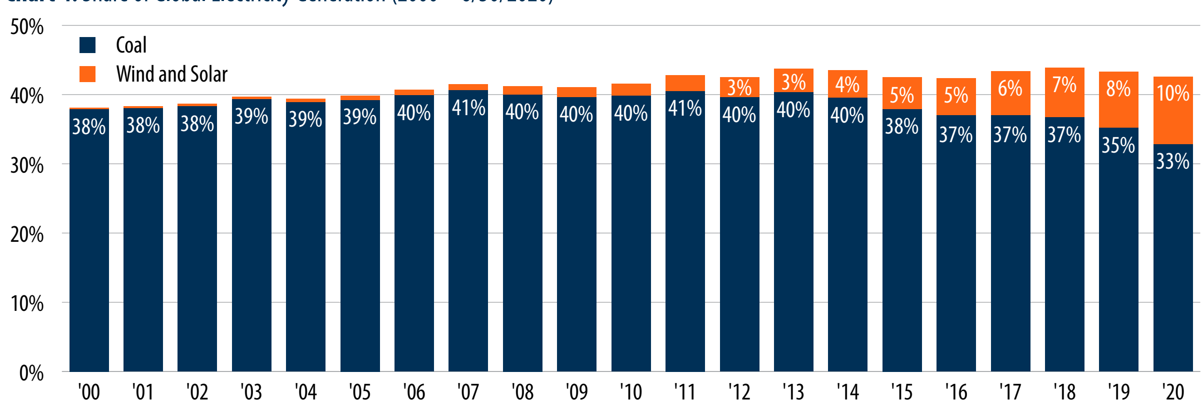
Chart 3: Estimated Unsubsidized Cost of New Energy Projects (1H 2014 – 1H 2020)



Source: Bloomberg New Energy Finance.

As the cheapest source of electricity in many parts of the world, wind and solar power generation has increased substantially over the last several years. In the first half of 2020, renewable power generation rose 14% compared to the same period last year, and now accounts for approximately 10% of worldwide power generation.[8]

Chart 4: Share of Global Electricity Generation (2000 – 6/30/2020)



Source: Bloomberg New Energy Finance

Domestically, the lower cost of renewable energy—as well as natural gas—has resulted in a steep decline in the coal industry. Coal production fell to the lowest level in 40 years in 2019[9], while more US energy was consumed from renewable sources than coal.[10] Coal plant closures under President Trump are expected to exceed closures during the last four years of the Obama Administration,[11] despite the President's support for the industry. On the other hand, investments in clean energy in the US also jumped to a record $56 billion in 2019, higher than Europe and second only to China.[12] The outlook for renewable power demand appears robust as well, with 16 US states[13] and over 160 US cities[14] making commitments to 100% clean and renewable energy in recent years.

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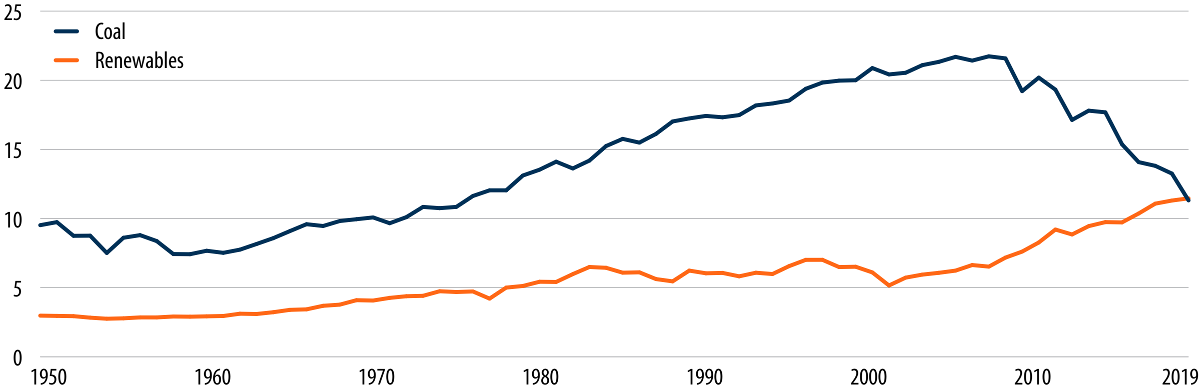
[1]Bloomberg 7/21/20
[2]Wall Street Journal 12/12/19
[3]Europa 1/2020
[4]Bloomberg 9/22/20
[5]Bloomberg 9/17/20
[6]Politico 6/8/20
[7]IRENA 6/2/20
[8]Bloomberg 8/12/20
[9]EIA 7/28/20
[10]EIA 5/28/20
[11]Reuters 1/13/20
[12]Bloomberg 1/16/20
[13]Energy Sage 5/2/19
[14]Sierra Club

Chart 5: U.S. Coal and Renewable Energy Consumption (Annual BTU, quadrillions, 1950 – 2019)



Source: U.S. Energy Information Administration

Investing in Green Energy

As mentioned above, First Trust offers three ETFs designed to provide exposure to the green and renewable energy theme: The First Trust NASDAQ® Clean Edge® Green Energy Index Fund (QCLN) tracks US-listed pure play companies active in the clean energy market, including but not limited to renewable electricity generation, energy storage, and electric vehicles. The First Trust Global Wind Energy ETF (FAN) provides a targeted approach to companies involved in the wind energy industry, with 88.5% of its holdings domiciled outside the US. as of 9/30/20. The First Trust NASDAQ® Clean Edge® Smart Grid Infrastructure Index Fund (GRID) tracks companies active in smart grid infrastructure, smart meters, energy management, connected mobility and related activities.

You should consider a fund's investment objectives, risks, and charges and expenses carefully before investing. Contact First Trust Portfolios L.P. at 1-800-621-1675 or visit www.ftportfolios.com to obtain a prospectus or summary prospectus which contains this and other information about a fund. The prospectus or summary prospectus should be read carefully before investing.

ETF Characteristics

Investors buying or selling fund shares on the secondary market may incur customary brokerage commissions. Investors who sell fund shares may receive less than the share's net asset value. Shares may be sold throughout the day on the exchange through any brokerage account. However, unlike mutual funds, shares may only be redeemed directly from a fund by authorized participants, in very large creation/redemption units. If a fund's authorized participants are unable to proceed with creation/redemption orders and no other authorized participant is able to step forward to create or redeem, fund shares may trade at a discount to the fund's net asset value and possibly face delisting.

Risk Considerations

A fund's shares will change in value, and you could lose money by investing in a fund. There can be no assurance that a fund's investment objective will be achieved. The outbreak of the respiratory disease designated as COVID-19 in December 2019 has caused significant volatility and declines in global financial markets, which have caused losses for investors. The COVID-19 pandemic may last for an extended period of time and will continue to impact the economy for the foreseeable future.

An index fund's return may not match the return of the applicable index. Securities held by an index fund will generally not be bought or sold in response to market fluctuations.

A fund may invest in a concentrated portfolio which involves additional risks including limited diversification.

A fund may invest in small capitalization and mid capitalization companies. Such companies may experience greater price volatility than larger companies.

A fund containing securities of non-U.S. issuers is subject to additional risks as non-U.S. issuers are subject to higher volatility than securities of U.S. issuers. Risks may be heightened for securities of companies located in, or with significant operations in, emerging market countries. A fund may invest in depositary receipts which may be less liquid than the underlying shares in their primary market.

A fund may contain the securities of companies in the wind energy, utility and industrial sectors, among others. Wind energy companies can be significantly affected by obsolescence of existing technology, short product cycles, falling prices and profits, competition from new market entrants and general economic conditions. This can be significantly affected by fluctuations in energy prices and supply and demand of alternative energy fuels, energy conservation, and government regulations.

Industrials companies are subject to certain risks, including the general state of the economy, intense competition, consolidation, domestic and international politics, excess capacity and consumer demand and spending trends. They may also be significantly affected by overall capital spending levels, economic cycles, technical obsolescence, delays in modernization, labor relations, and government regulations.

Utilities companies are subject to imposition of rate caps, increased competition, difficulty in obtaining an adequate return on invested capital or in financing large construction projects, limitations on operations and increased costs attributable to environmental considerations and the capital market's ability to absorb utility debt. Utilities companies may also be affected by taxes, government regulation, international politics, price and supply fluctuations, volatile interest rates and energy conservation. Changes in currency exchange rates and the relative value of non-US currencies may affect the value of a fund's investments and the value of a fund's shares.

Smart grid companies can be negatively affected by high costs of research and development, high capital requirements for implementation, government regulations, limited ability of industrial and utility companies to implement new technologies and uncertainty of the ability of new products to penetrate established industries.

Renewable and alternative energy companies can be significantly affected by obsolescence of existing technology, short product cycles, legislation resulting in more strict government regulations and enforcement policies, fluctuations in energy prices and supply and demand of alternative energy fuels, energy conservation, the success of exploration projects, the supply of and demand for oil and gas, world events and economic conditions. Shares of clean energy companies have been significantly more volatile than shares of companies operating in other more established industries. This industry is relatively nascent and under-researched in comparison to more established and mature sectors.

A fund may effect a portion of creations and redemptions for cash, rather than in-kind securities. As a result, a fund may be less tax-efficient.

Certain funds are classified as "non-diversified" and may invest a relatively high percentage of their assets in a limited number of issuers. As a result, the funds may be more susceptible to a single adverse economic or regulatory occurrence affecting one or more of these issuers, experience increased volatility and be highly concentrated in certain issuers.

First Trust Advisors L.P. (FTA) is the adviser to the funds. FTA is an affiliate of First Trust Portfolios L.P., the funds' distributor.

Please be aware that each fund listed is subject to various risks depending on the fund's investment objectives. For a complete description of relative risks for a specific fund, please obtain and carefully read the appropriate First Trust prospectus by visiting www.ftportfolios.com or calling 1-800-621-1675.

The information presented is not intended to constitute an investment recommendation for, or advice to, any specific person. By providing this information, First Trust is not undertaking to give advice in any fiduciary capacity within the meaning of ERISA, the Internal Revenue Code or any other regulatory framework. Financial professionals are responsible for evaluating investment risks independently and for exercising independent judgment in determining whether investments are appropriate for their clients.

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Performance Summary (%)

As of 9/30/20	Inception Date	Net Expense Ratio	Gross Expense Ratio^	1 Year	5 Year	10 Year	Since Fund Inception
QCLN Performance*	2/8/07	0.60%	0.63%				
QCLN Net Asset Value (NAV)				108.29	26.92	12.06	6.58
QCLN Market Price				108.24	26.93	12.06	6.58
NASDAQ Clean Edge® Green Energy Index**				108.96	26.96	12.05	6.77
Russell 2000® Index**				0.39	8.00	9.85	6.06
S&P 500 Index**				15.15	14.15	13.74	8.62
FAN Performance*	6/16/08	0.60%	0.73%				
FAN Net Asset Value (NAV)				35.42	14.40	7.84	-2.27
FAN Market Price				35.40	14.60	7.90	-2.25
ISE Clean Edge Global Wind Energy Index**				36.58	15.36	8.66	-1.48
MSCI World Index**				10.41	10.48	9.37	6.10
Russell 3000® Index**				15.00	13.69	13.48	9.81
S&P 500 Index**				15.15	14.15	13.74	9.94
GRID Performance*	11/16/09	0.70%	0.82%				
GRID Net Asset Value (NAV)				28.10	16.16	8.80	8.22
GRID Market Price				28.37	16.31	8.83	8.23
NASDAQ Clean Edge® Smart Grid Infrastucture Index℠**				29.35	17.13	9.68	9.10
MSCI World Industrials Index**				3.97	9.79	8.70	8.92
S&P Composite 1500 Industrials Index**				1.24	10.97	11.77	11.99
Russell 3000® Index**				15.00	13.69	13.48	12.96
S&P 500 Index**				15.15	14.15	13.74	13.04

Performance data quoted represents past performance. Past performance is not a guarantee of future results and current performance may be higher or lower than performance quoted. Investment returns and principal value will fluctuate and shares when sold or redeemed, may be worth more or less than their original cost. You can obtain performance information which is current through the most recent month-end by visiting www.ftportfolios.com.

^QCLN Expenses are capped contractually at 0.60% per year, at least until April 30, 2021. FAN Expenses are capped contractually at 0.60% per year, at least until January 31, 2021. GRID Expenses are capped contractually at 0.70% per year, at least until January 31, 2021.

***NAV** returns are based on the fund's net asset value which represents the fund's net assets (assets less liabilities) divided by the fund's outstanding shares. **Market Price** returns are based on the midpoint of the bid/ask spread on the stock exchange on which shares of the fund are listed for trading as of the time that the fund's NAV is calculated. Returns are average annualized total returns, except those for periods of less than one year. The fund's performance reflects fee waivers and expense reimbursements, absent which performance would have been lower.

Performance information for the indexes is for illustrative purposes only and does not represent actual fund performance.

Indexes do not charge management fees or brokerage expenses, and no such fees or expenses were deducted from the performance shown. Indexes are unmanaged and an investor cannot invest directly in an index. The **Russell 2000® Index is comprised of the smallest 2000 companies in the Russell 3000 Index. The **MSCI World Index** is a free float-adjusted market capitalization weighted index that is designed to measure the equity market performance of 23 developed markets around the world. The **Russell 3000® Index** is comprised of the 3000 largest and most liquid stocks based and traded in the U.S. The **MSCI World Industrials Index** is a free float-adjusted market capitalization weighted index that is designed to measure the industrials sector performance of 23 developed markets around the world. The **S&P Composite 1500 Industrials Index** is a capitalization-weighted index of companies classified by GICS as industrials within the S&P Composite 1500 Index. The **S&P 500 Index** is an unmanaged index of 500 stocks used to measure large-cap U.S. stock market performance.