

# Sierra Club Green Alpha

Portfolio Review • September 30, 2018



## Green Alpha®

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### Why Invest in Sierra Club Green Alpha?

- An actively managed, long-only equity strategy operating in compliance with the Sierra Club's rigorous social and environmental criteria and Green Alpha's Next Economy™ portfolio construction methodology
- Invests solely in innovative solutions to core economic and environmental risks
- Fossil fuel free since inception

**Inception Date:** December 27, 2010

**Style:** All-Cap Global Growth Equity

**Available Vehicle:** Separately Managed Account

### Next Economy Investment Philosophy

Green Alpha's investment philosophy is straight forward: don't invest in companies that cause global systemic risks; instead, invest in the solutions.

We believe companies that create or enable innovative solutions to climate change, resource scarcity and widening inequality are the greatest growth drivers of the twenty-first century. That's the Next Economy.



### Portfolio Construction: Sierra Club Green Alpha

The Sierra Club® Portfolio is a unique blend of Green Alpha's Next Economy process and the Sierra Club's proprietary environmental and social investment criteria. Green Alpha is proud to be the only financial services firm allowed to utilize the Sierra Club's rigorous criteria. By pairing this criteria with our Next Economy investing philosophy, we together create what must be the most progressive investment portfolio available. As a result of this process, every portfolio holding is a forward-looking, Next Economy innovator with a Sierra Club-compliant environmental and social history. Sierra Club Green Alpha portfolio holdings consist of U.S. and internationally domiciled companies whose shares trade on U.S. exchanges. It is an actively managed strategy that seeks long-term capital appreciation, and typically holds 30 to 40 companies. Like all Green Alpha portfolios, the Sierra Club Green Alpha portfolio is a fossil fuel free, all-cap, cross-sector, global equity strategy.

Please see the final page of this document for important disclosures about portfolio, benchmark and characteristic information.

# Portfolio Overview: Sierra Club Green Alpha

Portfolio characteristics and how they compare to the S&P 500 (SPY) and other Green Alpha portfolios

## Sierra Club Green Alpha Characteristics

- **Sierra Club® criteria** – the only portfolio available on the market that utilizes the Sierra Club’s rigorous social and environmental criteria
- **Fundamentals-driven** – because the quality of the companies you invest in and the price you pay for them matter
  - ✓ **High growth** – indicated by Sales Growth, drop from current P/E to Forward P/E as revenue and earnings grow
  - ✓ **Compelling valuation** – demonstrated by Price/Sales, Price/Book metrics
  - ✓ **Strong balance sheet, solid management execution** – expressed by LT Debt/Equity, Current Ratio
- **Fossil fuel free since inception** – we have never invested in companies that prospect, extract, refine, or transport fossil fuels, nor fossil-fired utilities
- **Diversified – we look for solutions wherever we can find them** – across the globe, in firms of all sizes, and in every industry
- **Public equities, long-only** – largest asset class, largest opportunity for impact

Characteristics	Sierra Club Green Alpha	Benchmark: S&P 500 (SPY)	Green Alpha Next Economy Index	Green Alpha Next Economy Social Index	Green Alpha Next Economy Select	Green Alpha Growth & Income
# of Securities	39	500	94	73	53	33
Sales Growth, TTM	18.22%	13.00%	17.93%	17.96%	20.68%	12.38%
P/E, Current	31.21	35.01	37.05	37.69	24.82	32.73
P/E, 1-Year Forward†	18.17	16.81	21.18	21.02	17.74	18.28
Price/Sales	1.36	2.25	1.75	1.76	0.98	2.14
Price/Book	2.15	3.52	3.08	3.41	1.89	2.13
LT Debt/Equity	0.66	0.85	0.58	0.65	0.66	1.19
Current Ratio	2.73	1.92	2.86	2.83	2.62	2.39
Dividend Yield, TTM	2.13%	1.80%	1.63%	1.50%	2.26%	6.04%
Dividend Yield, Current	-	-	-	-	-	5.08%
US Domicile	70.68%	100%	77.68%	83.89%	71.40%	76.85%
Non-US Domicile	25.30%	-	20.26%	13.62%	26.64%	21.05%
Cash	4.03%	-	2.06%	2.49%	1.96%	2.11%
Market Capitalization Weighted Avg (US\$B)	68.04	247.17	74.47	79.79	45.54	21.86
Turnover, TTM	23%	-	17%	35%	8%	29%
Beta, TTM	0.97	1.00	1.05	1.05	1.00	0.87

TTM = Trailing Twelve Months

† Bloomberg consensus estimates

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# Top Five Positions

And how they're driving progress toward the Next Economy

## **Vestas Wind Systems** (Energy, Renewable Energy)

- Global leader in wind energy technology & services, making wind a mainstream energy source.
- Also a global leader in onshore installations & onshore grid-connected installations.
- Strong gender diversity for renewables; two women in Senior Management (22% of the team) & three on the Board of Directors (25%).

## **Alphabet, Inc.** (Communications, Media)

- Provider of unlimited access to global information. Anyone with access to Google has better access to information than the richest person on earth had 20 years ago.
- Innovation-driven venture capital fund with dozens of fascinating “moonshots” (e.g., “Project Loon – the balloon-powered internet for everyone”). All extremely well capitalized by the best ad-serving machine in history.
- Global operations use 100% renewable energies.
- Sole woman in Senior Management is an award-winning CFO. Board of Directors has three women (23%), including the Audit Committee Chair.

## **TPI Composites** (Renewable Energy, Front-end Capital Goods)

- Experts in advanced composite technology and production, enabling TPI to manufacture lightweight and durable wind blades with near-aerospace grade precision at an industrial cost.
- Also produce lightweight, durable materials to improve transportation efficiency (e.g., trucks, buses, planes).
- The largest independent U.S.-based manufacturer of composite wind blades.

## **Pattern Energy Group, Inc.** (Utilities, Power Generation)

- Portfolio of 20 wind power facilities with a geographical footprint that includes the US, Canada, Chile, Mexico.
- Also includes projects around solar, transmission & storage.
- High quality, investment grade, & long-term power purchase agreements (PPAs) translate to steady revenue stream.
- Above average gender diversity for a utility company, with a woman in Senior Leadership & two on the Board of Directors (29%), including the Chair of the Nominating, Governance & Compensation Committee.

## **First Solar, Inc.** (Energy, Renewable Energy)

- Has developed, financed, engineered, constructed & currently operates many of the world's largest grid-connected solar PV power plants.
- Business spans utility-scale solar, corporate renewables, community solar, “turnkey” systems for developers, & operations & maintenance services.

Makes unique CdTe technology solar cells, which are inexpensive, more efficient than C-Si panels in hot environments, and also outperform in cloudy and shady conditions. CdTe tech is also exempt from current U.S. tariffs.

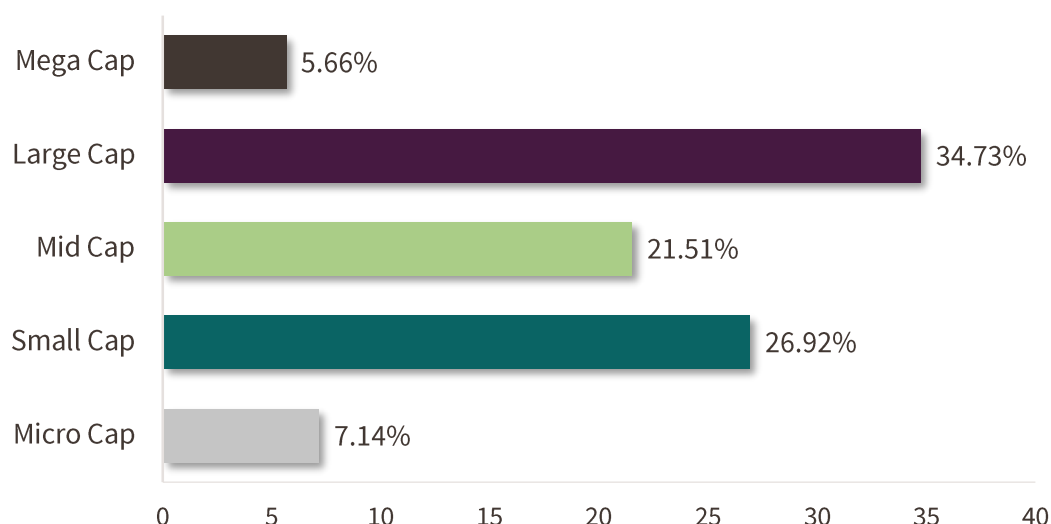
Company Name	Ticker	Weight
Vestas Wind Systems	VWDRY	4.99%
Alphabet, Inc.	GOOG	4.41%
TPI Composites	TPIC	4.27%
Pattern Energy Group, Inc.	PEGI	4.22%
First Solar, Inc.	FSLR	4.12%
% of Portfolio		22.01%

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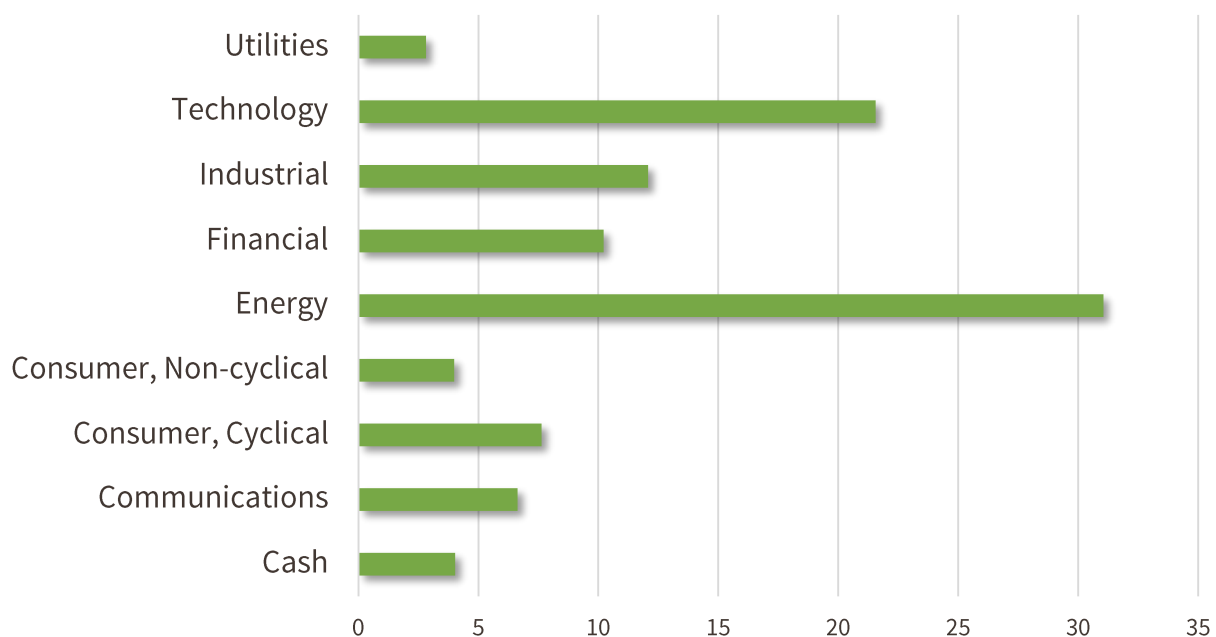
# Allocation by Market Cap & Sector

Our search for Next Economy companies is unconstrained. We seek solutions to systemic risks wherever they exist – across sectors, market caps, and geographies. The following divisions are the result of our Next Economy process, rather than the starting point.

## Equity Allocation by Market Cap



## BICS<sup>††</sup> Sector Allocation (% of Portfolio)



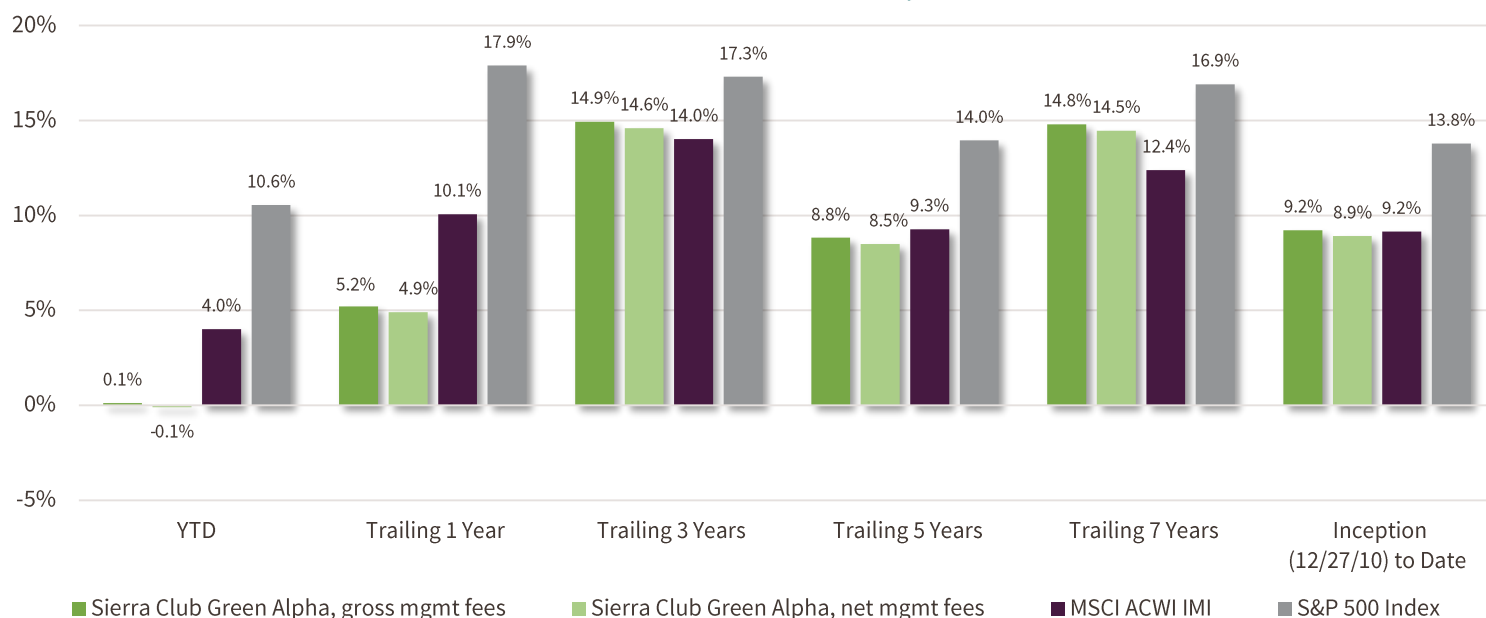
<sup>††</sup> Bloomberg Investment Classification System

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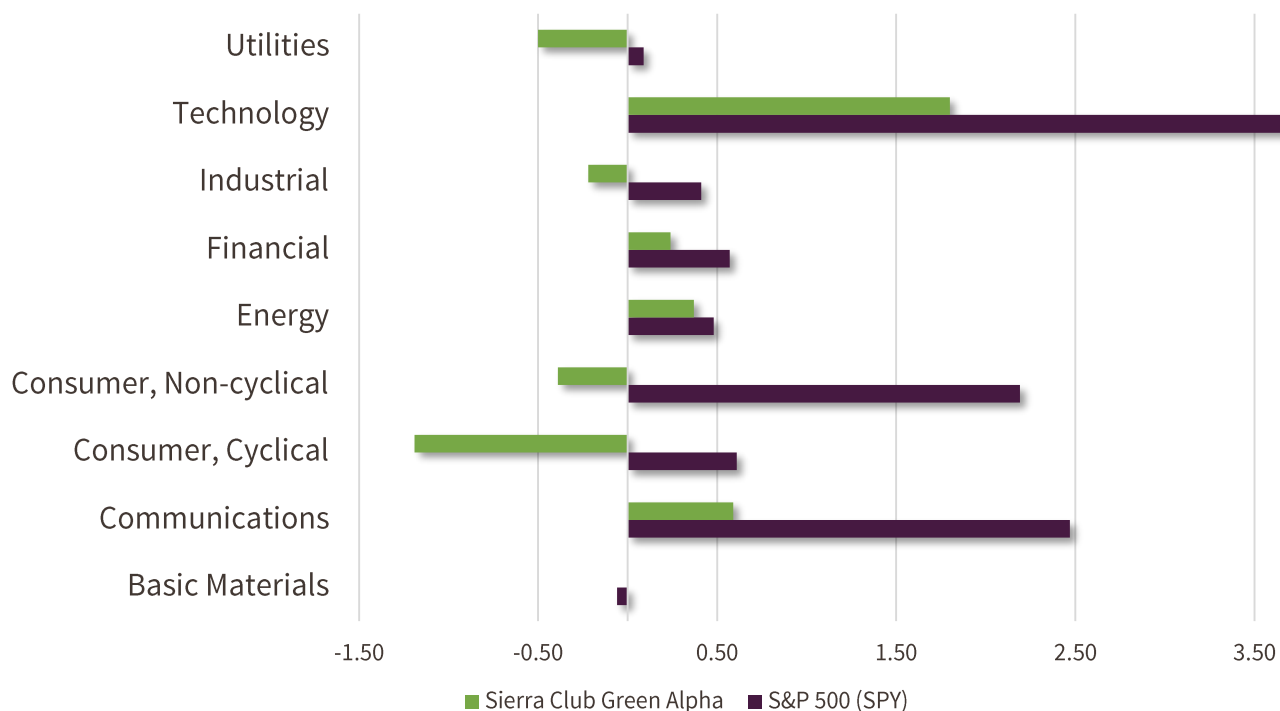
# Performance History & Sector Attribution

For commentary, see pages 7 - 8.

## Performance History



## Year to Date 2018 Sector Attribution by BICS<sup>††</sup>



<sup>††</sup> Bloomberg Investment Classification System

All returns presented above that are greater than 1 year in length have been annualized. Performance data quoted represent past performance. Past performance does not guarantee future results and current performance may be lower or higher than the data quoted. Sierra Club Green Alpha strategy performance results reflect actual performance for a representative account, net of actual management fees and transaction costs. Assets managed in the Sierra Club Green Alpha strategy representative account receive a reduced fee from the standard fee schedule. Sierra Club Green Alpha strategy performance results do not reflect the reinvestment of dividends and interest. Extreme periods of underperformance or outperformance are due to the concentrated nature of the strategy and the impact of specific security selection. Such results may not be repeatable. Please see more important disclosures on the final page of this document.

# Attribution: Top Five Contributors & Detractors

Next Economy innovation doesn't unfold overnight—or even a quarter. Think of this as one way of looking at the previous quarter's performance, not necessarily the long-term picture.

## Five Largest Contributing Stocks – 3<sup>rd</sup> Quarter

Company Name	Ticker	Average Weight	Stock Price Return	Contribution to Portfolio Return
<b>Fortinet, Inc.</b>	FTNT	2.64%	47.80%	1.05%
<b>Trex Company, Inc.</b>	TREX	3.17%	22.99%	0.62%
<b>Universal Display</b>	OLED	1.80%	37.16%	0.53%
<b>Sierra Wireless, Inc.</b>	SWIR	2.03%	25.62%	0.46%
<b>Vestas Wind Systems</b>	VWDRY	4.74%	9.49%	0.44%

## Five Largest Detracting Stocks – 3<sup>rd</sup> Quarter

Company Name	Ticker	Average Weight	Stock Price Return	Contribution to Portfolio Return
<b>Tesla, Inc.</b>	TSLA	3.45%	-22.80%	-0.89%
<b>Solaredge Technologies, Inc.</b>	SEDG	3.10%	-21.32%	-0.65%
<b>JinkoSolar Holding Co.</b>	JKS	1.95%	-21.79%	-0.45%
<b>First Solar, Inc.</b>	FSLR	4.09%	-8.05%	-0.38%
<b>Micron Technology, Inc.</b>	MU	1.08%	-15.87%	-0.27%

Past performance is not a guarantee of future results. To obtain information about the calculation methodology used to select the representative account's largest contributors and detractors from performance or to obtain a list showing every holding's contribution to the account's performance during the measurement period, contact us at [info@greenalphaadvisors.com](mailto:info@greenalphaadvisors.com). Given differences in account sizes, custodial fee arrangements and other client-specific factors, not all accounts invested in the Sierra Club Green Alpha strategy experienced the exact portfolio contributions shown above. The holdings identified throughout this document do not represent all of the securities purchased, sold, held or otherwise recommended for advisory clients. Nothing in this document should be considered recommendation to purchase or sell any particular security.



# Manager Commentary

Q3 2018 in Review



In Q3 2018, we saw that the economy is functioning at a high level. It was a quarter of unusually rapid economic growth in the U.S., enough that the Fed took the word “accommodative” out of their [September FOMC Statement](#), meaning they estimate that the economy is healthy enough to no longer require unusually cheap capital to continue growing.

**But uncertainties in the political world—led by the specter of trade wars—loom large along with interest rate rises and the winding down of QE.** In September, Fed Chairman Powell went out of his way to remind everyone that, while the economy is growing sufficiently to merit a 0.25% raise to the Fed Funds rate, the Fed is not responsible for trade policy. He [stated](#) that “many of our country’s economic challenges are beyond the scope of the Fed, but we are doing all we can to keep the economy strong and moving forward.” Separately, and specifically on trade, Powell [recently said](#), “The truth is this: Since War II we’ve had this trading system develop, and consistently tariffs have come down and trade has grown. And I think that’s served the global economy, and particularly the United States economy, very well... Part of the independence that we have is to stick to our lane, stick to our knitting, so really wouldn’t want to comment on fiscal policy really, or trade policy.”

Ford Motor Company, by contrast, did recently comment on current trade policy: “The metals tariffs took about a billion dollars of profit from us,” [said CEO Jim Hackett](#) at a Bloomberg event in September. Q3 also saw ongoing efforts to renegotiate several trade deals, most importantly NAFTA, China, and Japan. As of the end of the quarter, nothing has been signed, and China is threatening to cancel the next meeting with US delegates. **The scene right now can be summed up as: growth with uncertainty.** (Note: as of 10/1, a provisional tri-lateral [update to NAFTA](#)—now the USMCA—has been agreed to by the U.S., Canada, and Mexico. Uncertainty is diminished a little—in this hemisphere, at least.)

On the interest rate hike, Chairman Powell [noted](#) that the Fed doesn’t see in their data any reason to fear a recession in the next year or two and therefore multiple raises may be in order for 2019. More raises in the short-term rate could have the effect of inverting the yield curve, but the Fed doesn’t necessarily see that as a harbinger of recession (although history does [show a correlation](#) there).

Yet a correction is certainly plausible. In general, the very low interest rate environment we’ve been in for years now has encouraged even conservative investors to leave bonds and money markets for investments that have higher yield or return potential but are farther out on the risk curve. Often, this means stocks. The often-discussed scenario—a stock market correction resulting from some combination of rising rates (which attract risk averse money back out of stocks and into cash and debt instruments), QE winding down, and trade uncertainty—seems plausible at some point in the next few years. So, how do we proceed?

Start by focusing on what’s emerging, growing and gaining market share from incumbent economy predecessors and counterparts. **Even in bear markets, there will always be parts of the economy that are developing faster than others.**

Then, focus on intrinsic value—the ‘true value’ based on a company’s tangible and intangible assets. **If you can buy a company because you can get it for close to what it’s worth**—as opposed to buying it regardless of its intrinsic value because it’s in an index—you have a better chance of avoiding overpriced stocks. Therefore, you are more likely to withstand a downturn and [better positioned](#) to recover early and with some velocity. Stocks do tend to return to their intrinsic value more quickly than they will return to being overvalued. *(continued on page 8)*

Please see the final page of this document for important disclosures about portfolio, benchmark and characteristic information.

# Manager Commentary (cont.)

## Q3 2018 in Review

On that point, it's worth revisiting the portfolio characteristics as of the end of Q3, 2018 on page 2 of this document.

Owning growth in the form of innovative, sustainability-driving companies without paying too much (at the aggregate portfolio level) above intrinsic value is what we strive to do.

Markets are always going to be changing on us. There will always be new events and innovations, including things far outside our control. **What we can do is be adaptable. We can consider the most likely scenarios and prepare for them. At Green Alpha, we look to scientific consensus**, since science aims to show us what's real; it is the closest we can come to truly *knowing* what those future scenarios hold and how to address them.

While some progress is slowly being made, the financial industry has by and large failed to integrate such scientifically-based risk calculus into its methods. Many investors continue to buy fossil fuel-based stocks as though there is no risk to the underlying assets and there are no *financially viable* alternatives. This tells us they are not being skeptical. This won't last. What will cause the fossil fuels bubble to burst is the accelerating development of renewable energies ([e.g., China's clean energy push](#)) and energy efficiency technologies, followed by plunging prices.

The overall picture at the end of Q3 2018 is one of growth with uncertainties, both geopolitical and economic, with a plausible case for market correction or even recession over the next few years, along with areas of rapid growth and productivity improvements occurring within that context.

As always, we remain [true to thesis](#), never engage in style drift, are fossil fuels free, and focused on what's next.

In Q3 2018, our portfolios saw generally favorable results, but with some dispersion between strategies. Returns are summarized on pages 5 and 6. As a supplement, here is a look into Q3's performance attribution by strategy.

### Sierra Club Green Alpha - Portfolio Commentary

- The Sierra Club Green Alpha portfolio was up 3.07% for Q3 2018, boosted primarily by Industrials, which added 1.52%.
  - In Industrials, renewable building materials was the main contributor adding 0.62%, with Electrical Components and Equipment not far behind at 0.49. Demand for recycled product viewed as higher-quality-for-price versus primary resource materials continues to grow in the U.S.
- Communications added 0.75% to portfolio return during the quarter.
  - In Communications, Internet of Things connectivity modules contributed 0.46%. The beginnings of 5G networks, together with greater global data flow, are the key catalysts here. We expect this to continue.
- The portfolio was diminished by only two sectors. Consumer Cyclical reduced returns by 0.30%.
  - Auto Manufacturers detracted 0.89%, more than offsetting gains from sustainable office furnishings. This was largely due to regulatory overhang, which negatively impacted share price despite output growth.
- Energy was the second detractor at -0.20%.
  - Within Energy, detractors were in Renewables, and specifically solar, which overall netted -0.20% from the portfolio in Q3, despite some positive contributions from wind energy and renewables-based utilities. Solar has been damaged by the perceived effects of tariffs in the U.S. and by Chinese policy that modified how support for new solar projects will be administered.

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- Dividend information for the Growth & Income Portfolio: The dividend yield for the trailing twelve months (TTM) for the Growth & Income Portfolio included a significant one-time special dividend distribution by TerraForm Power, Inc. The TTM dividend yield for the portfolio (6.04%) was materially higher than the current dividend yield (5.08%) as a result of the special dividend. The current dividend yield is shown in addition to the TTM dividend yield as a more appropriate reflection of the portfolio's current dividend yield as of September 30, 2018.
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- The S&P 500 Index is an unmanaged index of 500 common stocks chosen for market size, liquidity and industry group representation. It is a market-value weighted index. The S&P 500 Index figures do not reflect any fees expenses or taxes. Investors cannot invest directly in this index.
- The SPDR S&P 500 ETF (SPY) seeks to provide investment results that, before expenses, correspond generally to the price and yield performance of the S&P 500 Index. Investors can invest directly in SPY.
- MSCI ACWI IMI: The MSCI ACWI Investable Market Index (IMI) captures large, mid and small cap representation across 23 developed markets and 23 emerging markets countries. With over 8,600 constituents, the index is comprehensive, covering approximately 99% of the global equity investment opportunity set. Investors cannot invest directly in this index.
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