

Sierra Club Green Alpha

First Quarter Review • March 31, 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-approved 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 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	Green Alpha Next Economy Index	Green Alpha Growth & Income	Green Alpha Next Economy Select
# of Securities	39	500	95	30	52
Sales Growth, 1-Year Trailing	16.08%	10.98%	16.83%	9.51%	16.05%
P/E, Current	35.29	36.56	37.31	42.21	31.25
P/E, 1-Year Forward [†]	18.95	16.39	20.32	17.64	16.57
Price/Sales	1.37	2.15	1.69	1.91	0.99
Price/Book	2.48	3.23	2.95	2.03	2.10
LT Debt/Equity	0.70	0.86	0.58	0.95	0.66
Current Ratio	3.30	2.02	2.80	2.95	2.89
Dividend Yield	2.09%	1.95%	1.68%	5.09%	2.16%
US Domicile	72.09%	100%	75.94%	72.18%	66.42%
Non-US Domicile	26.63%	-	23.07%	25.29%	28.77%
Cash	2.22%	-	1.00%	2.54%	4.81%
Market Capitalization Weighted Avg (US\$B)	49.82	198.76	60.89	20.32	34.47
Turnover, 1-Year Trailing	24%	-	18%	16%	15%
Beta, 1-Year Trailing	1.03	1.00	1.06	0.92	0.99

[†] Bloomberg consensus estimates

^{††} Bloomberg Investment Classification System

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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%).

First Solar, Inc. (Energy, Renewable Energy)

- Has developed, financed, engineered, constructed & currently operates many of the world's largest grid-connected 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, & outperform in cloudy & shady conditions. CdTe tech is also exempt from current U.S. tariffs.
- Aims to reduce risk while delivering more reliable, dependable & cost-effective energy solutions.

Skyworks Solutions, Inc. (Technology, Semiconductors)

- Designs, develops, manufactures & markets semiconductors for use in radio frequency & mobile communications systems. System on Chip designs enable complex distributed tasks & data aggregation.
- Enables connectivity across connected economy, including automotive, broadband, cellular infrastructure, connected home, industrial, & medical markets.
- Women represent 25% of the Senior Management Team holding 3 key positions, & the sole woman on the Board of Directors has strong influence as the Chair of the Compensation Committee.

8point3 Energy Partners(Utilities, Power Generation)

- Company has recently been sold to a private equity company; will no longer remain a portfolio constituent as a result.
- Exceptionally well-run business, safe business model, & long growth runway based on solar-generating assets.
- Founded & sponsored by two leading solar manufacturers.
- Women make up 33% of Senior Management, including the VP of Operations, a position of high influence.

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.

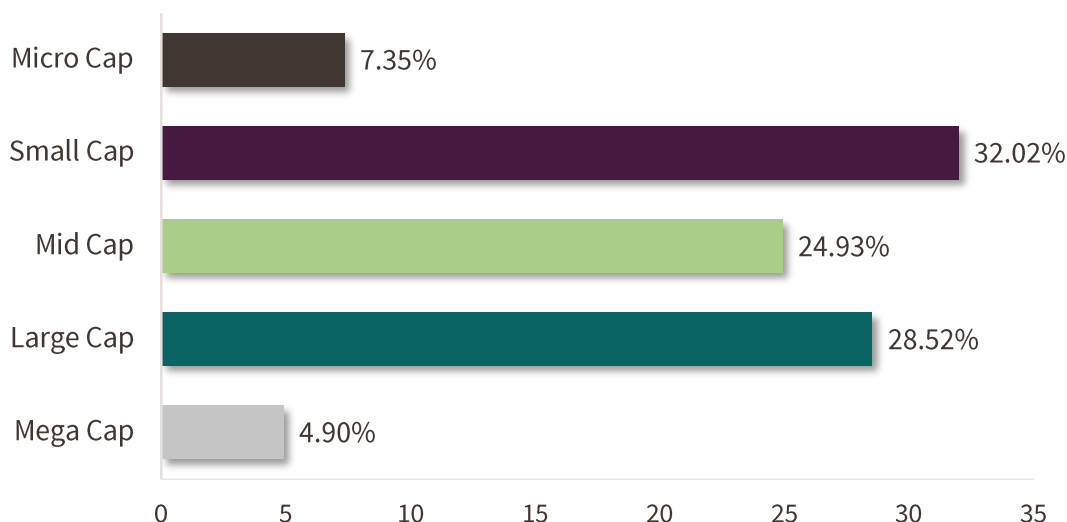
Company Name	Ticker	Weight
Vestas Wind Systems	VWDRY	5.49%
First Solar, Inc.	FSLR	4.88%
Skyworks Solutions, Inc.	SWKS	4.21%
8point3 Energy Partners	CAFD	3.95%
Alphabet, Inc.	GOOG	3.94%
% of Portfolio		22.47%

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

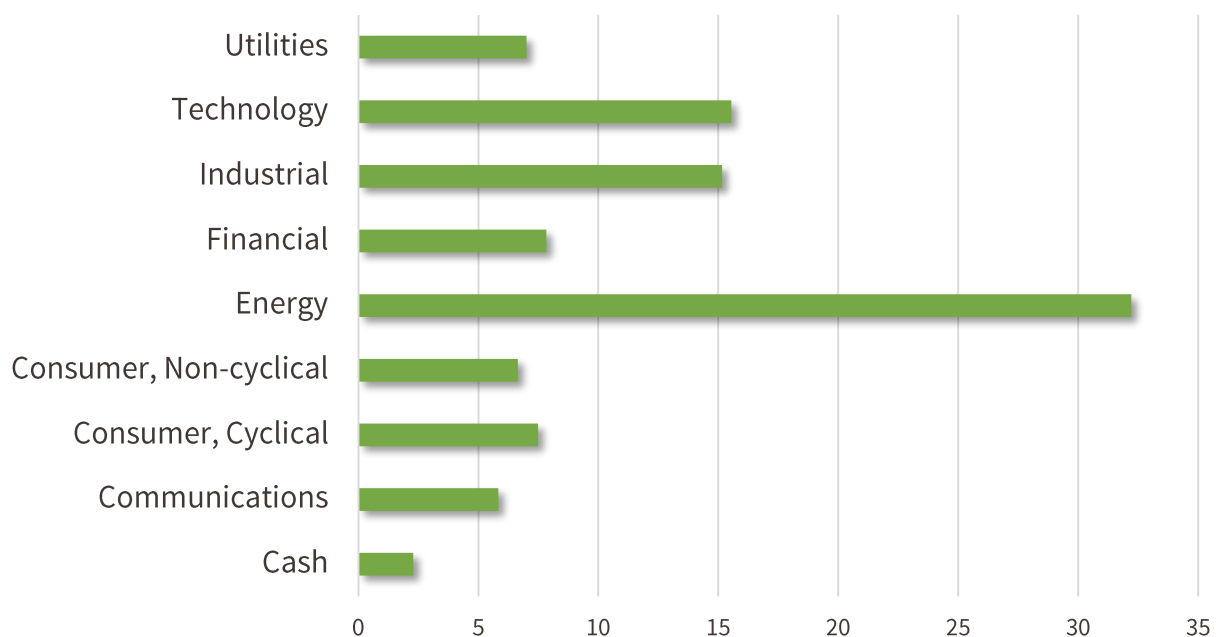
Allocation by Market Cap & Sector

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^{††} Sector Allocation (% of Portfolio)



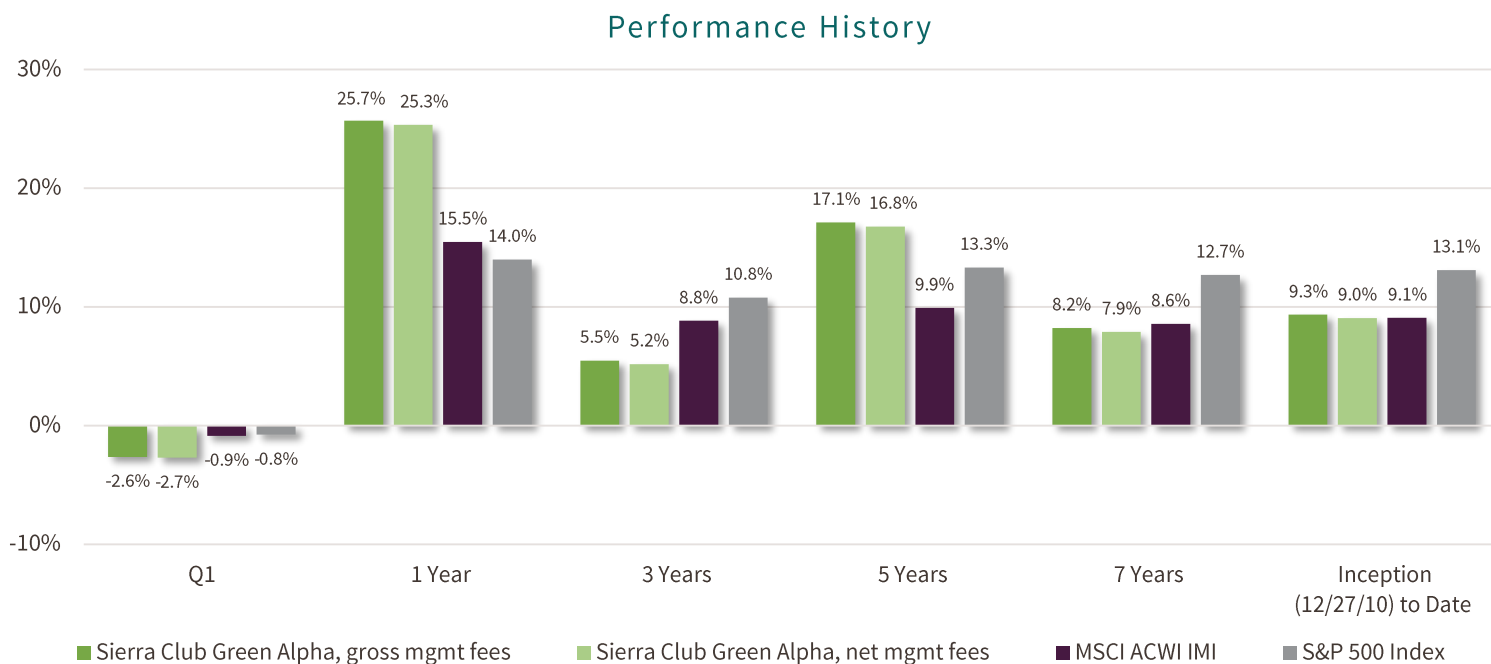
[†] Bloomberg consensus estimates

^{††} Bloomberg Investment Classification System

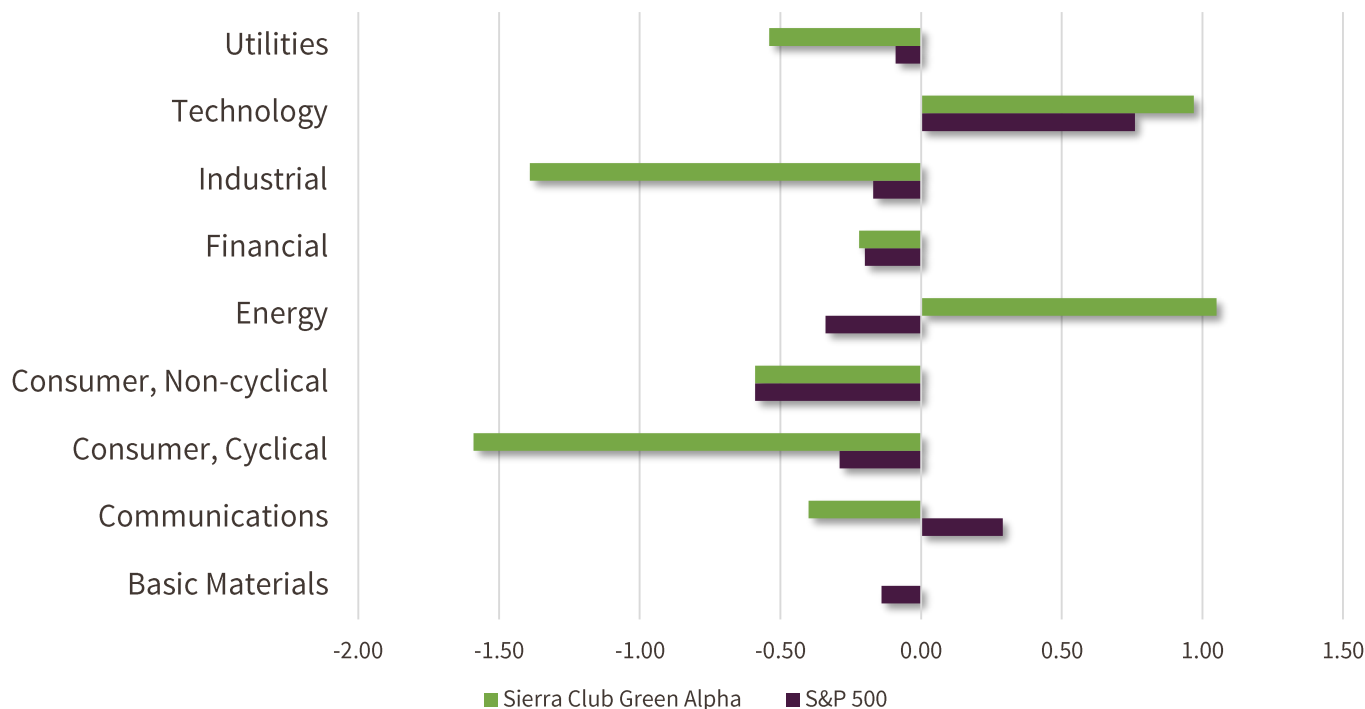
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Performance History & Sector Attribution

For commentary, see pages 7 - 8.



Year to Date 2018 Sector Attribution by BICST^{††}



[†] Bloomberg consensus estimates

^{††} 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. Next Economy Index performance results reflect actual performance for a representative account, net of actual management fees and transaction costs. Assets managed in the Next Economy Index strategy representative account receive a reduced fee from the standard fee schedule. Next Economy Index 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 page 9 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 – 1st Quarter

Company Name	Ticker	Average Weight	Stock Price Return	Contribution to Portfolio Return
SunRun, Inc.	RUN	2.37%	51.36%	1.06%
Solaredge Technologies, Inc.	SEDG	2.93%	40.08%	1.00%
NVIDIA Corp.	NVDA	2.25%	19.76%	0.46%
Consolidated Water Co.	CWCO	2.68%	16.93%	0.42%
Fortinet, Inc.	FTNT	1.67%	22.64%	0.35%

Five Largest Detracting Stocks – 1st Quarter

Company Name	Ticker	Average Weight	Stock Price Return	Contribution to Portfolio Return
Universal Display Corp	OLED	2.71%	-41.47%	-1.09%
8point3 Energy Partners	CAFD	4.20%	-20.12%	-0.97%
JinkoSolar Holding Co.	JKS	3.05%	-24.12%	-0.85%
Pattern Energy Group, Inc.	PEGI	4.17%	-17.60%	-0.81%
Kandi Technologies Group, Inc.	KNDI	2.94%	-28.68%	-0.56%

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. Given differences in account sizes, custodial fee arrangements and other client-specific factors, not all accounts invested in the Next Economy Index 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

Q1 2018 in Review



The first quarter of 2018 was one of the more volatile quarters in recent performance history for Green Alpha strategies, as well as for global and U.S. equities in general. Let's review the "whens" and "whats" of this shift, and how this relates to the ongoing tech revolution.

The beginning of the quarter saw a continuation of 2017's bull run for stocks as investors were persuaded that the passage of the Republican tax plan, in lowering taxes for U.S. corporations, would make business more profitable and earnings increases would follow. However, sentiment shifted abruptly following the January employment figures, as investors were spooked by rising wages, in turn raising inflation and thus interest rate fears, meaning corporate earnings could be projected to decrease as they would have to pay more interest on their debt. But then, by the end of March, inflation fears were allayed somewhat as Chicago Purchasing Manager Index (PMI) fell in March to a reading of 57.4, which was a one-year low, from 61.9 in February. So perhaps inflation won't be too severe, and interest rates may not need to rise as much after all.

Cue late March stock rally. All this keeps the Fed in its difficult position; it must normalize rates without hindering economic growth, while trying to predict overall price inflation in the face of sometimes conflicting data.

We've also seen a lot of volatility align with signals of on-again, off-again trade war threats. Experience (some very recent) shows that while tariffs are meant to shore up U.S. industry, retaliatory tariffs from countries importing U.S. exports make those exports less competitive. This leads to a counter effect, wherein domestic consumers see higher prices for products they buy, less demand for the products they make, lower pay, and higher unemployment. **Here, as with climate science, we see the U.S. increasingly outside of the global mainstream.** Formerly the champions and great beneficiaries of trade and globalization, the U.S. is now seen by many as running the other way, raising general economic uncertainty and raising market volatility.

We'll keep watching. Short-term developments, while not particularly meaningful in terms of portfolio returns for the long-term investor, do add up over time into the long-term picture. Events at the beginning of a major transition can have large effects on how the economy evolves. For example, tariffs that aim to thwart the growth of renewable energies in the U.S. mean that the U.S. is willingly giving up its historical lead in the solar industry, particularly in solar PV. We are encouraged that the best efforts of incumbent fossil fuel interests in the U.S. have not managed to stop growth in renewables – a sign that renewables' advantageous economics are hard to repudiate – but we can simultaneously lament that the momentum and growth in these key technologies is now being ceded to markets more enthusiastic about developing them (read: China).

As always, our response to all this is to keep our focus on the long-term, remaining invested in multi-year growth trends that will ultimately be affected less by shorter term policy machinations and more by innovative pursuit. This also underscores the importance of looking for Next Economy opportunities across the globe. If combative, protectionist economics hampers the U.S.'s efficiency-led growth, other nations will continue to pick up the slack, and we as investors will seek those global opportunities accordingly.

When thinking about the larger story of the Next Economy, we know that there will always be inevitable moments of setback and slowdown amidst prevailing long-term growth and evolution. And Q1 did indeed see much more important, long-term indications of development across several areas of the Next Economy. *(continued on page 8)*

Manager Commentary (cont.)

Q1 2018 in Review

Even in the presence of political noise, the energy space has been successfully pulling away from the inefficient legacy economy. Wind power firms announced development of turbines over 250 meters in length generating 12 megawatts, capable of powering 16,000 households at a time, making it likely that the price of wind generated electricity will continue to fall.

And we've already seen some significant price declines. Bloomberg reported that "The economic case for building new coal and gas capacity is crumbling, as batteries start to encroach on the flexibility and peaking revenues enjoyed by fossil fuel plants." The three key technologies driving this shift experienced impressive price declines between 2010-2017; total costs fell by 77% for solar PV, 38% for onshore wind, and 79% for lithium-ion battery storage. When we see such phenomenal price declines over the course of seven short years, achieving economic sustainability looks like more than a dream.

Solar may particularly benefit from significantly larger scale, and Q1 saw no shortage of evidence that global installations continue to boom. We learned that global solar capacity grew faster than fossil fuels in 2017, and China installed an unprecedented 97 gigawatts (GW) of solar capacity in the year. We also heard that Soft Bank and Saudi Arabia will be collaborating on the world's largest solar power generation project, expected to ultimately have the capacity to produce up to 200GW.

Meanwhile, in the automotive sector, U.S. EV sales in March 2018 grew 42% versus March 2017. This is a lot considering that the U.S. is a laggard in global terms; at least a dozen nations, including the world's largest auto market, China, have indicated an intention to ban internal combustion engine vehicles altogether in the coming couple of decades. What about EVs deployed for businesses? Consider this headline: "It's the beginning of the end' for internal combustion engines, says UPS as it updates its fleet to electric."

The electric transportation revolution is now visible even in aviation. In Q1, we saw electric aircraft start to take shape in reality as multiple designers showed off practical designs and prototypes, and Norway announced it will make all short-haul flights electric by 2040.

The strands are coming together, almost faster than we can keep up with them, to form a clear story of global economic evolution that is significant, enduring, and likely to be profitable for early adopters. The short-term Q1 ephemera will be only memories before long, while the tsunami of the global transition to the Next Economy will continue to prove unstoppable. Here's to an exciting Q2.

Sierra Club Green Alpha – Please refer to page 4 for Sector Allocation chart & page 5 for Sector Attribution chart

The Sierra Club Green Alpha Portfolio saw overall negative performance for the quarter. Energy and technology sectors countered this trend, providing positive returns. As with the Next Economy Index, solar and wind equipment makers and installers did particularly well, while utilities and OEMs detracted from returns. In tech, semiconductors and Internet of Things technology fared well. On the negative side, the Sierra Club portfolio took losses in the electric vehicle sub-sector of consumer cyclicals, despite EVs gaining market share from traditional internal combustion engine vehicles during the period.

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- 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.
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