



Horizon Kinetics Energy and Remediation ETF (NVIR)

Fund Update: ESG, Renewable Energy, And What Happens When Investments Are Doing Good But Not Doing Well

Year to date through November 10th, the NASDAQ 100 Index has advanced 41%, driven by some of its biggest names. This is a top-heavy index, where the ten largest positions account for 52% of the total; these ten stocks have advanced by an average of 81% year-to-date (YTD).

Interestingly, while 2023 has been a good year for technology stocks, most of the so-called “green” stocks have not participated in the rally. The largest such ETFs are based on two main green energy indexes: the S&P Global Clean Energy Index and the MAC Global Solar Energy Index. These have declined 35% and 43% YTD, respectively.¹ And that is despite the former having increased its exposure to utilities, rather than focusing on more pure-play renewables companies. In fact, 12 of the top 20 holdings in the S&P Global Clean Energy Index are utilities stocks, and not what one might think of as renewables-specific utilities, either. As of October 20th, Con Edison (ED) was the second-largest holding in this index.²

Reviewing the YTD performance of bona fide “green” energy/transportation/battery companies reveals that the 40 stocks listed in the table³ below have declined by 47% on average, and by a median rate of 54%. Only three of the 40 stocks have advanced. Consequently, this group has underperformed the Invesco QQQ ETF, which tracks the Nasdaq-100, by roughly 88%-95%. This calls into question the benefit of investment strategies that revolve around the green energy transition to renewables and electric vehicles, the possibility of using hydrogen instead of traditional fossil fuels, and developing batteries for (renewable) utility-grade backup.

While there has been plenty of backlash and backtracking regarding the entire ESG movement, it is probably safe to assume that the investment community is not satisfied with the accompanying returns. Investors might like the idea of impact investing, with the aim of advancing social good, but they also need to do well in terms of returns. Therefore, it is possible that the investment community’s focus will change—from believing that fossil fuels are, essentially, stranded assets and stranded investments on the verge of being phased out—to the realization that fossil fuels will remain the primary energy source globally for decades to come.

If so, the next logical question is: How can we continue to produce fossil fuels, which are essential for the global economy, but do so in an environmentally responsible manner? It is possible that a compromise can be reached in the collective minds of investors. And if some of the ESG and green/renewable investment flows are redirected to the companies that attempt to mitigate the environmental impact of fossil fuel extraction—technologies such as carbon capture, electrification of drilling equipment, and the capture of natural gas flaring, etc.—then these

¹ As of November 10th.

² The index was rebalanced prior to the market open on October 23rd, and Con Ed is no longer an index constituent. Source: https://www.spglobal.com/spdji/en/documents/indexnews/announcements/20230911-1466301/1466301_sp-global-clean-energy-rbics-update-9-11-2023.pdf

³ We believe this to be an exhaustive, or near exhaustive, list of liquid publicly traded companies operating in this space.

Please visit <https://horizonkinetics.com/products/etf/nvir/#holdings> for more information about NVIR, including holdings.



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businesses can become a new asset class. We refer to them as *remediation companies*: the “doing good but also doing well (from a return point of view)” subsegment of the Energy Industry.

	Symbol	Price	YTD	5-yr High	Gain/Loss From High	
Wind companies						
1	Vestas Wind Systems	VWDRY	\$7.91	-17.60%	\$16.18	-51%
2	Ørsted A/S	DNNGY	\$13.93	-53.86%	\$70.45	-80%
3	Orrön Energy AB	ORRON.ST	\$6.88	-69.38%	\$28.77	-76%
4	Siemens Energy	SMNEY	\$9.97	-46.68%	\$41.99	-76%
Solar-related companies						
5	First Solar	FSLR	\$131.41	-37.58%	\$221.18	-41%
6	SolarEdge	SEDG	\$69.20	-75.57%	\$375.00	-82%
7	Enphase Energy	ENPH	\$75.64	-72.16%	\$339.92	-78%
8	Canadian Solar	CSIQ	\$21.07	-31.81%	\$64.49	-67%
9	Jinko Solar	JKS	\$35.97	-12.02%	\$85.32	-58%
10	Maxeon Solar	MAXN	\$5.10	-68.24%	\$57.97	-91%
11	SunRun	RUN	\$9.40	-60.89%	\$82.37	-89%
12	SunPower	SPWR	\$3.71	-79.42%	\$57.52	-94%
13	Array Technologies	ARRY	\$13.83	-28.48%	\$50.99	-73%
14	Shoals Technologies	SHLS	\$12.96	-47.47%	\$37.61	-66%
15	Sunnova Energy	NOVA	\$8.84	-50.94%	\$46.80	-81%
16	Hannon Armstrong	HASI	\$19.06	-30.84%	\$72.42	-74%
17	Daqo New Energy Corp.	DQ	\$26.63	-31.03%	\$130.33	-80%
EVs						
18	Li Auto	LI	\$36.91	80.93%	\$41.49	-11%
19	Tesla	TSLA	\$209.12	69.77%	\$405.00	-48%
20	Polestar Automotive	PSNY	\$2.02	-61.96%	\$16.41	-88%
21	Fisker	FSR	\$3.76	-48.28%	\$31.96	-88%
22	Lucid	LCID	\$3.66	-46.41%	\$57.75	-94%
23	NIO	NIO	\$7.19	-26.27%	\$66.99	-89%
24	Xpeng	XPEV	\$15.22	53.07%	\$74.49	-80%
25	Rivian	RIVN	\$15.29	-17.06%	\$179.47	-91%
26	Workhorse	WKHS	\$0.36	-76.03%	\$42.96	-99.2%
27	Canoo Inc.	GOEV	\$0.23	-81.70%	\$20.00	-98.9%
28	Lordstown Motors	RIDEQ	\$1.28	-92.51%	\$473.55	-99.7%
29	Nikola	NKLA	\$0.92	-57.19%	\$76.30	-98.8%
30	Faraday Future	FFIE	\$0.79	-96.59%	\$1,660.00	-100.0%
31	Arrival	ARVL	\$1.06	-86.76%	\$1,859.00	-99.9%
32	Mullen Automotive	MULN	\$0.20	-97.22%	\$478.75	-100.0%
33	Vinfast Auto	VFS	\$6.04	-72.55%	\$93.00	-93.5%
EV Charging Companies						
	ChargePoint	CHPT	\$2.62	-72.56%	\$49.48	-95%
34	Blink	BLNK	\$3.19	-70.91%	\$64.50	-95%
35	Evgo	EVGO	\$2.53	-43.40%	\$24.00	-89%
Battery Tech						
36	QuantumScape Corp.	QS	\$5.26	-7.23%	132.73	-96%
37	FREYR Battery	FREY	\$1.69	-80.59%	14.4	-88%
Hydrogen						
38	Ballard Power Systems	BLDP	\$3.28	-31.52%	42.28	-92%
39	Plug Power	PLUG	\$3.45	-72.15%	73.9	-95%
40	Hyliion Holdings	HYLN	\$0.53	-77.30%	58.66	-99%
Ave			-47.0%		-82.6%	
Median			-53.9%		-88.6%	

(Prices as of 11/10/23)



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Important Risk Disclosures

Please consider carefully a fund's investment objectives, risks, charges, and expenses. For this and other important information, obtain a [statutory prospectus](#) and [summary prospectus](#) by contacting 646-495-7333. Read it carefully before investing.

The Horizon Kinetics Energy and Remediation ETF (Symbol: NVIR) is an exchange traded fund managed by Horizon Kinetics Asset Management LLC ("HKAM").

Investing involves risk, including the possible loss of principal. Shares of any ETF are bought and sold at market price (not NAV), may trade at a discount or premium to NAV and are not individually redeemed from the Fund. Brokerage commissions will reduce returns. The Fund's investments in securities linked to real assets involve significant risks, including financial, operating, and competitive risks. Investments in securities linked to real assets expose the Fund to potentially adverse macroeconomic conditions, such as a rise in interest rates or a downturn in the economy in which the asset is located.

The Fund is non-diversified, meaning it may concentrate its assets in fewer individual holdings than a diversified fund. Therefore, the Fund is more exposed to individual stock volatility than a diversified fund.

Fund holdings and sector allocations are subject to change at any time and should not be considered recommendations to buy or sell any security.

The Fund invests in foreign securities which involve greater volatility and political, economic and currency risks and differences in accounting methods. These risks are greater for investments in emerging markets.

The Fund may invest in the securities of smaller and mid-capitalization companies, which may be more volatile than funds that invest in larger, more established companies. The fund is actively managed and may be affected by the investment adviser's security selections.

References to other securities is not an offer to buy or sell.

Diversification does not assure a profit or protect against a loss in a declining market.

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The S&P Global Clean Energy Index is designed to measure the performance of companies in global clean energy-related businesses from both developed and emerging markets, with a target constituent count of 100..

The MAC Global Solar Energy Stock Index is the tracking Index for the "Invesco Solar ETF," which is an exchange-traded fund (ETF) that is traded on the New York Stock Exchange ARCA with the ticker symbol of TAN (NYSE ARCA: TAN)

The Nasdaq-100 is a stock market index made up of 101 equity securities issued by 100 of the largest non-financial companies listed on the Nasdaq stock exchange.