# NVIR F

## 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 10<sup>th</sup>, 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.<sup>1</sup> 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 20<sup>th</sup>, Con Edison (ED) was the second-largest holding in this index.<sup>2</sup>

Reviewing the YTD performance of bona fide "green" energy/transportation/battery companies reveals that the 40 stocks listed in the table<sup>3</sup> 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

<sup>&</sup>lt;sup>1</sup> As of November 10<sup>th</sup>.

<sup>&</sup>lt;sup>2</sup> The index was rebalanced prior to the market open on October 23<sup>rd</sup>, 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

<sup>&</sup>lt;sup>3</sup> We believe this to be an exhaustive, or near exhaustive, list of liquid publicly traded companies operating in this space.

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

#### Horizon Kinetics Energy and Remediation ETF (NVIR)



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

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.

11       SunRun       RUN       \$9.40       -60.89%       \$82.37       -89%         12       SunPower       SPWR       \$3.71       -79.42%       \$57.52       -94%         13       Array Technologies       ARRY       \$13.81       -79.42%       \$57.52       -94%         14       Shoals Technologies       SHLS       \$12.96       -47.47%       \$37.61       -66%         15       Sunnova Energy       NOVA       \$8.84       -50.94%       \$46.80       -81%         15       Bauno Armstrong       HASI       \$10.66       -30.84%       \$72.42       -74%         17       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$13.033       -80%         18       Li Auto       L1       \$36.91       80.93%       \$41.49       -11%         20       Polestar Automotive       PSNY       \$2.02       -61.96%       \$16.41       -88%         21       Fisker       FSR       \$3.76       -48.28%       \$31.96       -88%         22       Lucid       LCID       33.66       -66.44%       \$57.75       -94%         22       Lucid       LCID       33.66       -66.44%       \$57.49       -80%	e (	1	/	U		
Vestas Wind Systems         VWDRY         \$7.91         -17.60%         \$16.18         -51%           2         Ørsted A/S         ORRON.ST         \$3.39         -53.86%         \$70.45         -80%           3         Orrön Energy AB         ORRON.ST         \$3.97         -46.685         \$41.99         -76%           5         Solar-related companies         5         -77.57%         \$375.00         -82%           5         First Solar         FSLR         \$131.41         -37.58%         \$221.18         -41%           6         Solar-Edated companies         5         -72.16%         \$339.92         -78%           7         Enphase Energy         ENPH         57.54         -72.16%         \$339.92         -78%           10         Maxco Solar         MAXN         \$51.0         -68.24%         \$57.97         -91%           11         SunRow Foregy         NOVA         \$8.41         -50.04%         \$54.83         -78%           12         SunPower         SPPW         \$3.21         -74.4%         \$53.33         -72.4%           13         Array Technologies         ARRY         \$13.33         -28.4%         \$50.97         -91%           14 <t< td=""><td></td><td>Symbol</td><td>Price</td><td>YTD</td><td>5-yr High</td><td></td></t<>		Symbol	Price	YTD	5-yr High	
2         Orsted A/S         DNNGY         \$13.93         -53.86%         \$70.45         -60%           4         Siemens Energy         SMNEY         \$6.88         -60.38%         \$28.77         -76%           5         First Solar         FSLR         \$13.141         -37.88%         \$221.18         -41%           6         SolarEdge         SEDG         \$69.20         -75.57%         \$339.92         -78%           6         SolarEdge         SEDG         \$69.20         -72.57%         \$339.92         -78%           6         Canadian Solar         CS10         \$21.07         -31.81%         \$64.49         -67%           9         Jinko Solar         MXN         \$5.10         -68.24%         \$57.97         -91%           11         SunRou         RUN         \$3.40         -60.99%         \$82.37         -89%           12         SunPower         SPWR         \$3.11         -79.42%         \$57.92         -91%           13         Array Technologies         SHLS         \$12.96         -47.47%         \$37.61         -66%           15         Sunnov Energy Corp.         DQ         \$26.63         -0.94%         \$46.60         -81%	Wind companies					
2         Orsted A/S         DNNGY         \$13.93         -53.86%         \$70.45         -60%           4         Siemens Energy         SMNEY         \$6.88         -60.38%         \$28.77         -76%           5         First Solar         FSLR         \$13.141         -37.88%         \$221.18         -41%           6         SolarEdge         SEDG         \$69.20         -75.57%         \$339.92         -78%           6         SolarEdge         SEDG         \$69.20         -72.57%         \$339.92         -78%           6         Canadian Solar         CS10         \$21.07         -31.81%         \$64.49         -67%           9         Jinko Solar         MXN         \$5.10         -68.24%         \$57.97         -91%           11         SunRou         RUN         \$3.40         -60.99%         \$82.37         -89%           12         SunPower         SPWR         \$3.11         -79.42%         \$57.92         -91%           13         Array Technologies         SHLS         \$12.96         -47.47%         \$37.61         -66%           15         Sunnov Energy Corp.         DQ         \$26.63         -0.94%         \$46.60         -81%	1 Vestas Wind Systems	VWDRY	\$7.91	-17.60%	\$16.18	-51%
4         Siemens Energy         SMNEY         \$9.97         46.68%         \$41.99         -76%           5         First Solar         FSLR         \$131.41         -37.58%         \$221.18         41%           6         Solar#dge         SEDG         \$69.20         -75.57%         \$375.00         -82%           7         Enphase Energy         ENPH         \$75.64         -72.16%         \$333.92         -78%           9         Jinko Solar         JXS         \$353.97         -12.02%         \$85.32         -58%           10         Maxeon Solar         MAXN         \$5.10         -68.24%         \$57.97         -91%           11         SunRow         SWPWR         \$3.71         -79.42%         \$57.52         -94%           12         SunRowe         SPWR         \$3.11         -79.42%         \$57.52         -94%           13         Array Technologies         SHLS         \$12.84%         \$50.99         -73%           14         Shoals Technologies         SHLS         \$12.96         -47.47%         \$37.61         -66%           15         Sunnowe         Sundowe Energy Corp.         DQ         \$26.69         -90.89%         \$41.49         -11%     <		DNNGY	\$13.93	-53.86%	\$70.45	-80%
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7       Enphase Energy       ENPH       \$75.64       -72.16%       \$33.9.92       -78%         8       Canadian Solar       CSIQ       \$21.07       -31.81%       \$54.49       -67%         9       Jinko Solar       JKS       \$35.97       -10.02%       \$85.32       -58%         10       Maxeon Solar       MAXN       \$5.10       -66.824%       \$57.97       -91%         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       Sumova Energy       NOVA       \$8.84       -50.94%       \$46.80       -81%         16       Hamon Armstrong       HASI       \$19.06       -30.84%       \$12.03       -80%         17       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$14.49       -11%         19       Tesla       TSLA       \$209.12       69.75%       \$40.50       -48%         21       Ficker       FSR       \$3.76       +48.28%       \$31.96 </td <td></td> <td>FSLR</td> <td>\$131.41</td> <td>-37.58%</td> <td></td> <td></td>		FSLR	\$131.41	-37.58%		
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       -66.24%       \$57.97       -91%         11       SunRun       RUN       \$9.40       -66.24%       \$57.97       -94%         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%         15       Sunova Energy       NOVA       \$8.84       -50.94%       \$41.49       -11%         17       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$41.49       -11%         19       Tesla       TSLA       \$209.12 <b>69.77%</b> \$405.00       -48%         20       Polestar Automotive       PSNY       \$2.02       -61.96%       \$16.41		SEDG	\$69.20	-75.57%	\$375.00	-82%
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10       Maxeon Solar       MAXN       \$5.10       -68.24%       \$57.97       -91%         11       SunRun       RUN       \$9.40       -60.89%       \$52.37       -89%         13       Array Technologies       ARRY       \$13.83       -28.48%       \$50.99       -73%         14       Shoals 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       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$41.49       -11%         19       Tesla       TSLA       \$209.12 <b>69.77%</b> \$405.00       -48%         21       Fisker       FSR       \$37.61       -66.43%       \$57.75       -94%         22       Lucid       LCID       \$3.66       -46.41%       \$57.95       -94%         23       NIO       NIO       \$71.9       -26.27%       \$66.99       <	8 Canadian Solar	CSIQ	\$21.07	-31.81%	\$64.49	-67%
11       SunRun       RUN       \$9.40       -60.89%       \$82.37       -89%         12       SunPower       SPWR       \$3.71       -79.42%       \$57.52       -94%         13       Array Technologies       ARRY       \$13.81       -79.42%       \$57.52       -94%         14       Shoals Technologies       SHLS       \$12.96       -47.47%       \$37.61       -66%         15       Sunnova Energy       NOVA       \$8.84       -50.94%       \$46.80       -81%         15       Bauno Armstrong       HASI       \$10.66       -30.84%       \$72.42       -74%         17       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$13.033       -80%         18       Li Auto       L1       \$36.91       80.93%       \$41.49       -11%         20       Polestar Automotive       PSNY       \$2.02       -61.96%       \$16.41       -88%         21       Fisker       FSR       \$3.76       -48.28%       \$31.96       -88%         22       Lucid       LCID       33.66       -66.44%       \$57.75       -94%         22       Lucid       LCID       33.66       -66.44%       \$57.49       -80%		JKS	\$35.97	-12.02%	\$85.32	-58%
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       \$12.66       -47.47%       \$37.61       -66%         15       Sunnova Energy       NOVA       \$8.84       -50.94%       \$46.80       -81%         16       Hanon Armstrong       HASI       \$19.06       -30.84%       \$72.42       -74%         17       Dago New Energy Corp.       DQ       \$26.63       -31.03%       \$41.49       -11%         17       resla       TSLA       \$209.12       69.77%       \$405.00       -48%         20       Polestar Automotive       PSNY       \$2.02       61.06%       \$16.41       -88%         21       Fisker       FSR       \$3.76       -48.28%       \$31.96       -88%         23       NIO       NIO       NIO       \$7.19       -26.27%       \$66.99       -89%         24       Xpeng       XPEV       \$15.22       \$3.07%       \$74.49       -80%         25       Rivian       RIVN       \$15.29       -17.06%       \$20.00 </td <td>10 Maxeon Solar</td> <td>MAXN</td> <td>\$5.10</td> <td>-68.24%</td> <td>\$57.97</td> <td>-91%</td>	10 Maxeon Solar	MAXN	\$5.10	-68.24%	\$57.97	-91%
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%         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       LCIID       \$3.66       -64.11%       \$57.75       -94%         23       NIO       NIO       \$71.9       -26.27%       \$66.99       -93.7%         24       Xpeng       XPEV       \$15.22       \$3.07%       \$74.49       -80%	11 SunRun	RUN	\$9.40	-60.89%	\$82.37	-89%
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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 $\$26.63$ $-31.03\%$ $\$130.33$ $-80\%$ 18       Li Auto       LI $\$36.91$ $\$0.93\%$ $\$41.49$ $-11\%$ 19       Tesla       TSLA $$209.12$ $69.77\%$ $\$405.00$ $-48\%$ 20       Polestar Automotive       PSNY $$2.02$ $-61.96\%$ $\$16.41$ $-88\%$ 21       Fisker       F33.76 $-48.28\%$ $\$31.96$ $-88\%$ 22       Lucid       LCID $\$3.66$ $-46.41\%$ $\$57.75$ $-94\%$ 23       NIO       NIO       NIO $$71.9$ $-26.27\%$ $$66.99$ $-89\%$ 24       Xpeng       XPEV $\$15.29$ $-17.06\%$ $$179.47$ $-91\%$ 26       Workhorse       WKHS $$0.36$ $-76.03\%$ $$42.96$ $-99.2\%$ 27       Canoo Inc.       GOEV	13 Array Technologies	ARRY	\$13.83	-28.48%	\$50.99	-73%
16       Hannon Armstrong       HASI       \$19.06       -30.84%       \$72.42       -74%         17       Daqo New Energy Corp.       DQ       \$26.63       -31.03%       \$130.33       -80%         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%       \$31.95       -88%         22       Lucid       LCID       \$3.66       -46.41%       \$57.75       -94%         23       NIO       NIO       \$7.19       -26.27%       \$66.99       -89%         24       Xpeng       XPEV       \$15.29       17.06%       \$17.947       -91%         26       Workhorse       WKHS       \$0.36       -76.03%       \$42.96       -99.2%         27       Canoo Inc.       GOEV       \$0.23       -81.70%       \$20.00       -98.8%         28       Lordstown Motors       RIDEQ       \$1.28       -92.51%       \$473.55       -99.7% </td <td>14 Shoals Technologies</td> <td>SHLS</td> <td>\$12.96</td> <td>-47.47%</td> <td>\$37.61</td> <td>-66%</td>	14 Shoals Technologies	SHLS	\$12.96	-47.47%	\$37.61	-66%
17       Daqo New Energy Corp.       DQ       \$26.63       -31.03%       \$130.33       -80%         EVs		NOVA	\$8.84	-50.94%	\$46.80	-81%
17       Daqo New Energy Corp.       DQ       \$26.63       -31.03%       \$130.33       -80%         EVs	16 Hannon Armstrong	HASI	\$19.06	-30.84%	\$72.42	-74%
EVs         Image: Second		DQ	\$26.63	-31.03%	\$130.33	-80%
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%         21       Lucid       LCID       \$3.66       -46.41%       \$57.75       -94%         23       NIO       NIO       \$7.19       -26.27%       \$66.99       -89%         24       Xpeng       XPEV       \$15.22       \$3.07%       \$74.49       -80%         25       Rivian       RIVN       \$15.29       -17.06%       \$17.947       -91%         26       Workhorse       WKHS       \$0.36       -76.03%       \$42.96       -99.2%         26       Lordstown Motors       RIDEQ       \$1.28       -92.51%       \$47.355       -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%						
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%         21       Lucid       LCID       \$3.66       -46,41%       \$57.75       -94%         23       NIO       NIO       \$7.19       -26,27%       \$66,99       -88%         23       NIO       NIO       \$7.19       -26,27%       \$66,99       -89%         24       Xpeng       XPEV       \$15,29       -17,06%       \$17,4,49       -80%         25       Rivian       RIVN       \$15,29       -17,06%       \$17,4,74       -91%         26       Workhorse       WKHS       \$0.36       -76,03%       \$42,96       -99.2%         27       Canoo Inc.       GOEV       \$0.23       -81,70%       \$20.00       -98.3%         28       Lordstown Motors       RIDEQ       \$1,28       -92,51%       \$47,3,55       -99,7%         29       Nikola       NKLA       \$0.92       -77,23%       \$1,660.00       -100.0%		TI	\$36.91	80.93%	\$41.49	-11%
20       Polestar Automotive       PSNY $\$2.02$ $-61.96\%$ $\$16.41$ $-88\%$ 21       Fisker       FSR $\$3.76$ $-48.28\%$ $\$31.96$ $-88\%$ 21       Lucid       LCID $\$3.66$ $-46.48\%$ $\$57.75$ $-94\%$ 23       NIO       NIO $\$7.19$ $-26.27\%$ $\$66.99$ $-89\%$ 24       Xpeng       XPEV $\$15.22$ $\$3.07\%$ $\$74.49$ $-80\%$ 25       Rivian       RIVN $\$15.29$ $-17.06\%$ $\$179.47$ $-91\%$ 26       Workhorse       WKHS $\$0.36$ $-76.03\%$ $\$42.96$ $-99.2\%$ 26       Workhorse       RIDEQ $\$1.28$ $-92.51\%$ $\$473.55$ $-99.7\%$ 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 $\$0.79$ $\$6.596.59\%$ $\$1.69.00$ $-99.9\%$ 31       Arrival       ARVL <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td></td<>						
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%       \$74.49       -80%         24       Xpeng       XPEV       \$15.22       \$3.07%       \$74.49       -80%         25       Rivian       RIVN       \$15.29       -17.06%       \$17.94       -91%         26       Workhorse       WKHS       \$0.36       -76.03%       \$42.96       -99.2%         26       Lordstown Motors       RIDEQ       \$1.28       -92.51%       \$473.55       -99.7%         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%						
2         Lucid         LCID         \$3.66         -46.41%         \$57.75         -94%           23         NIO         NIO         \$7.19         -26.27%         \$66.99         -89%           24         Xpeng         XPEV         \$15.22         \$3.07%         \$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%           34         Mullen Automotive         MULN         \$0.20         -97.22%         \$478.75         -100.0%           <					-	
23       NIO       NIO       \$7.19       -26.27%       \$66.99       -89%         24       Xpeng       XPEV       \$15.22       \$3.07%       \$74.49       -80%         25       Rivian       RIVN       \$15.29       -17.06%       \$179.47       -91%         26       Workhorse       WKHS       \$0.36       -76.03%       \$42.96       -99.2%         26       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%         34       Blink       BLNK       \$3.19       -70.91%       \$64.50       -95%         35       Evgo       EVGO       \$2.53       -43.40%       \$24.00       -89% <td></td> <td></td> <td></td> <td></td> <td>-</td> <td></td>					-	
24       Xpeng       XPEV       \$15.22       \$3.07%       \$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%         34       Blink       BLNK       \$3.19       -70.91%       \$64.50       -95%         37       FREYR Battery       FREY       \$1.69       -80.59%       14.4					-	
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       FIFE       \$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 $-93.5\%$ 4       Blink       BLNK       \$3.19 $-70.91\%$ \$64.50 $-95\%$ 34       Blink       BLNK       \$3.19 $-70.91\%$ \$64.50 $-95\%$ 35       Evgo       EVGO       \$2.53 $-43.40\%$					-	
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%         34       Blink       BLNK       \$3.19       -70.91%       \$64.50       -95%         35       Evgo       EVGO       \$2.53       -43.40%       \$24.00       -89%         37       FREYR Battery       FREY       \$1.69       -80.59%       14.4       -88%         38       Ballard Power Systems       BLDP       \$3.45       -72.15%       73.9	1 0				-	
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%         34       Blink       BLNK       \$3.19       -70.91%       \$64.50       -95%         35       Evgo       EVGO       \$2.53       -43.40%       \$24.00       -89%         37       FREYR Battery       FREY       \$1.69       -80.59%       14.4       -88%         40       Hydrogen       -80.59%       14.4       -88%       -92%         39       Plug Power       PLUG       \$3.45       -72.15%       73.9       -95% <tr< td=""><td></td><td></td><td></td><td></td><td>-</td><td></td></tr<>					-	
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					-	
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					-	
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       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       -88%         Battery Tech					-	
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%         18       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					-	
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	5					
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						
EV Charging Companies       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					-	
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		VFS	Ş0.04	-72.55%	\$95.00	-93.5%
34       Blink       BLNK       \$3.19       -70.91%       \$64.50       -95%         35       Evgo       EVGO       \$2.53       -43.40%       \$24.00       -89%         Battery Tech			40.00		A 4 5 1 5	0
35       Evgo       EVGO       \$2.53       -43.40%       \$24.00       -89%         Battery Tech	e				-	
Battery Tech         36       QuantumScape Corp.         37       FREYR Battery         Hydrogen         38       Ballard Power Systems         39       Plug Power         40       Hyllion Holdings         HYLN       \$0.53         Ave       -47.0%         Ave       -47.0%         -88.6%					-	
36       QuantumScape Corp.       QS       \$5.26       -7.23%       132.73       -96%         37       FREYR Battery       FREY       \$1.69       -80.59%       14.4       -88%         Hydrogen	35 Evgo	EVGO	\$2.53	-43.40%	\$24.00	-89%
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%						
Hydrogen         BLDP         \$3.28         -31.52%         42.28         -92%           39         Plug Power         PLUG         \$3.45         -72.15%         73.9         -95%           40         Hylion Holdings         HYLN         \$0.53         -77.30%         58.66         -99%           Ave         -47.0%         -82.6%           Median         -53.9%         -88.6%						
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%	37 FREYR Battery	FREY	\$1.69	-80.59%	14.4	-88%
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%						
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%	38 Ballard Power Systems	BLDP	\$3.28	-31.52%		-92%
Ave         -47.0%         -82.6%           Median         -53.9%         -88.6%		PLUG	\$3.45	-72.15%	73.9	-95%
Median -53.9% -88.6%	40 Hyliion Holdings	HYLN	\$0.53	-77.30%	58.66	-99%
	of 11/10/23		Median	-53.9%		-88.6%

(Prices as of 11/10/23)



### Horizon Kinetics Energy and Remediation ETF (NVIR)

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

#### Important Risk Disclosures

Please consider carefully a fund's investment objectives, risks, charges, and expenses. For this and other important information, obtain a <u>statutory prospectus</u> and <u>summary prospectus</u> 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.

HKAM does not provide tax or legal advice, all investors are encouraged to consult their tax and legal advisors regarding an investment in the Fund. You may obtain additional information about HKAM at our website at www.horizonkinetics.com.

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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 nonfinancial companies listed on the Nasdaq stock exchange.