

# US Utilities & Clean Tech

## Follow the Money: Fund flow shifts across Cleantech, Utilities and Energy

Industry Overview

### Understanding fund flows across our coverage & beyond

Amid recent capital markets volatility, we look at exchange traded fund (ETF) flows to understand the movement of capital across cleantech, utilities and energy. Our analysis depicts a relative preference for utilities and the broader market ETFs, aligned with a flight to safety. We compared sector ETF performance to the broader market (represented by SPY and QQQ). We reference ICLN and TAN, the most prominent cleantech ETFs, and XLU, XLE, and XOP, which are utilities, energy, and exploration ETFs. We normalize shares outstanding and share prices at the start of each calendar year.

### Lackluster ETF demand YTD, funds flowing out of equities

We analyze shares outstanding across open-ended ETFs to understand sector demand. In 2023 there has been a sustained decline in demand for conventional energy ETFs, despite flat to down shares outstanding for the comparable set. Recently, XLU demand increased, as investors have moved toward more defensive assets. Most critically, while demand for market tracking ETFs (SPY & QQQ) has declined YTD, we suspect funds are flowing out of equities and into cash and credit, given macro uncertainty.

### Funds rotating back to utilities from cleantech

Investor sentiment toward cleantech (ICLN & TAN) has eroded YTD and our client conversations are supported by data that show there is a clear rotation out of cleantech. We note a commensurate increase in utilities flows against waning cleantech demand, so we argue funds rotated out of long-dated growth assets and into near term income vehicles. IRA domestic content clarity may change cleantech perception, but we have yet to see this fundamental support. This remains the open question for sector sentiment.

### Comparable set lagging the broader market YTD

In 2023, we note QQQ's wide outperformance vs. our comparable set, followed by SPY (i.e. the broader equity market). We note that TAN (solar ETF) has outperformed broader cleantech (ICLN), which we suspect is driven by easing Uyghur Forced Labor Prevention Act (UFLPA) module detainment headwinds. Utilities and conventional energy ETFs have seen modest declines in share prices YTD. This follows tremendous outperformance for conventional energy ETFs in 2022 supported by commodities. Since August 2022, utilities (XLU) have broadly tracked long-term US Government treasury rates.

### Solar holding up, despite capital flow out of equities

Utilities, cleantech, and conventional energy ETF share prices have recently lagged SPY, and hard asset linked sectors have struggled against the outperformance in technology stocks YTD. Since QQQ shares outstanding are relatively stable while QQQ share price has increased, we argue there may be asset class rotation rather than net increases in demand for growth-linked equities. The solar sector has proven relatively flat YTD, despite higher discount rates. We highlight potential for solar space to follow QQQ. The visibility into higher Federal tax credits under the IRA provides timely visibility, and we perceive some improvement in 2H with likely re-acceleration of orders, and proving out of tax credits across the space. Reiterate modestly constructive view across solar.

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AD/CVD = Anti-dumping and countervailing duties

BBB = Build Back Better

E&P = Exploration & Production

ETF = Exchange Traded Fund

ICLN = iShares Global Clean Energy

IRA = Inflation Reduction Act

QQQ = Invesco QQQ ETF

UFLPA = Uyghur Forced Labor Prevention Act

SPY = SPDR S&P 500 ETF

TAN = Invesco Solar ETF

XLE = SPDR Energy Select ETF

XLU = SPDR Utilities ETF

XOP = SPDR S&P Oil & Gas Exploration & Production ETF

# Tracking Sector & Market Fund Flows with ETFs

In the following analysis, we aim to understand fund flows across our covered sectors, cleantech and utilities, and the adjacent conventional energy space. We compare sector specific performance, which is represented by the sector-specific ETF, to the broader market performance, which is represented with SPY and QQQ. By assessing the changes in shares outstanding and share performance for the selected ETFs, we aim to understand fund flows across our coverage universe (represented by ICLN, TAN, and XLU) relative to the broader market (SPY and QQQ). We use these ETFs as proxies for sector fund flows and to understand the interrelated capital movements across relevant sectors and the broader market.

We selected ICLN and TAN given that they are the preeminent cleantech ETFs that our team and investors use to gauge sector performance. One important caveat: While ICLN & TAN have high liquidity, it is far lower than 'heavyweights' SPY, QQQ, XLE, XOP, and XLU. As a result, ICLN & TAN may be disproportionately impacted by movements in fund flows. We also acknowledge that some fund flows may be more heavily influenced by retail or institutional investor flows.

## ETF shares outstanding evolution depict capital flows into Utilities

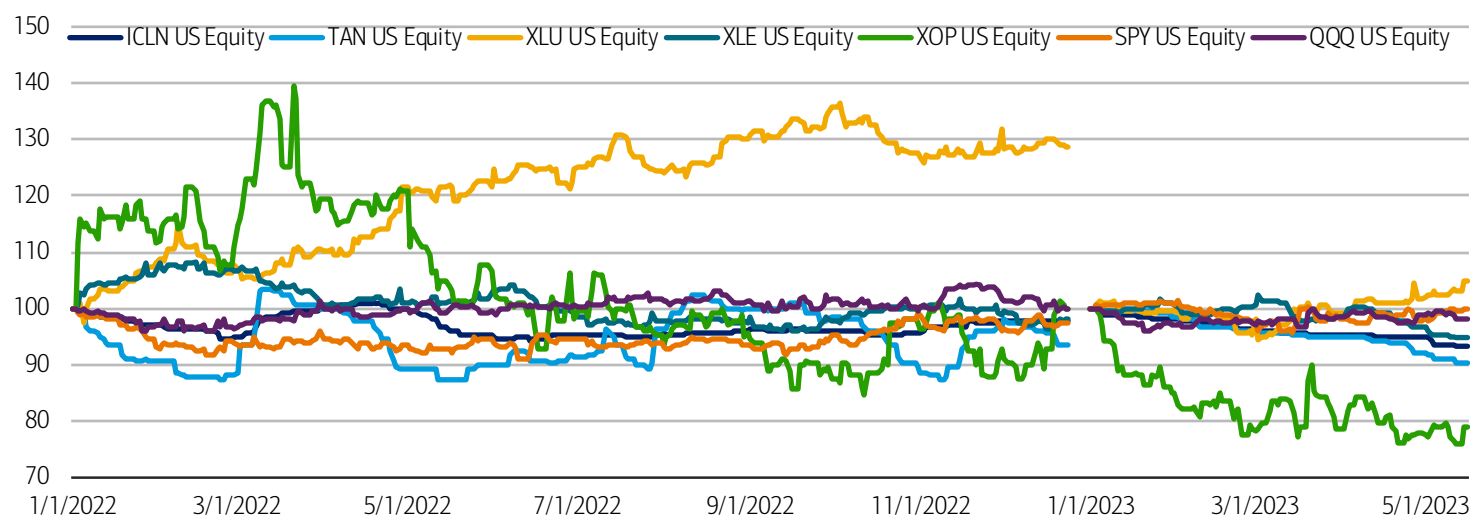
We focus on 2022+ to understand recent movements and normalize shares outstanding data annually on January 1. This year, we observe a significant decrease in shares outstanding for XOP, as oil and gas exploration and production (E&P) companies fall out of favor against declining oil and gas prices. This continues the declines we observed in XOP throughout the latter half of 2022. Across the rest of our analysis set, we observe more muted changes across the other sectors, but cleantech (TAN and ICLN) have declined in shares outstanding, as US residential growth concerns mounted, interest rates rose, and macro uncertainty increased. Both cleantech ETFs were volatile through 2022, ending the year with fewer shares outstanding than the start of the year for many of these same challenges. This is a surprising conclusion despite the rise in global natural gas prices and enactment of the Inflation Reduction Act. We observe a slight increase in shares outstanding in XLU in recent weeks, but it is still relatively modest. This follows a consistent climb in shares outstanding throughout 2022, amid the flight to safety and rotation into defensives. We note slight declines in shares outstanding for SPY and QQQ in recent weeks while capital flows out of equities and into credit against equity market volatility and the stability in elevated interest rates.

Equity markets have exhibited an increase in volatility after the regional banking instability and our client conversations have shown a preference for more mature utilities. We suspect this trend may weigh on cleantech throughout the year, while growth equities are challenged by valuation pressures and investors chase reliable yield instruments.

Within the subsector, investors have focused on Consolidated Edison (ED) which is currently included in ICLN. ED recently divested its unregulated renewables portfolio to focus on its core electric transmission & distribution assets. Investors focus on constituency changes due to the potential for short-term supply/demand imbalances. Other leading ICLN constituents are SEDG, FSLR, ENPH, Vestas (not covered), Iberdrola (not covered), Orsted (not covered), EDP (not covered), and Plug Power (not covered).

**Exhibit 1: ETF Shares Outstanding, Normalized Annually (100 Being the Baseline Value; January 2022 – Present)**

In recent weeks, we note clearer sector rotations out of cleantech (ICLN & TAN) and into utilities (XLU), as investors flee to safety against broader equity market pressures.



Source: BofA Global Research, Bloomberg

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**Providing historical context for evolution of ETF shares outstanding**

Below we display the same shares outstanding analysis across cleantech, utilities, and conventional energy versus the broader market, and we normalize shares outstanding data at the start of each year beginning in 2018.

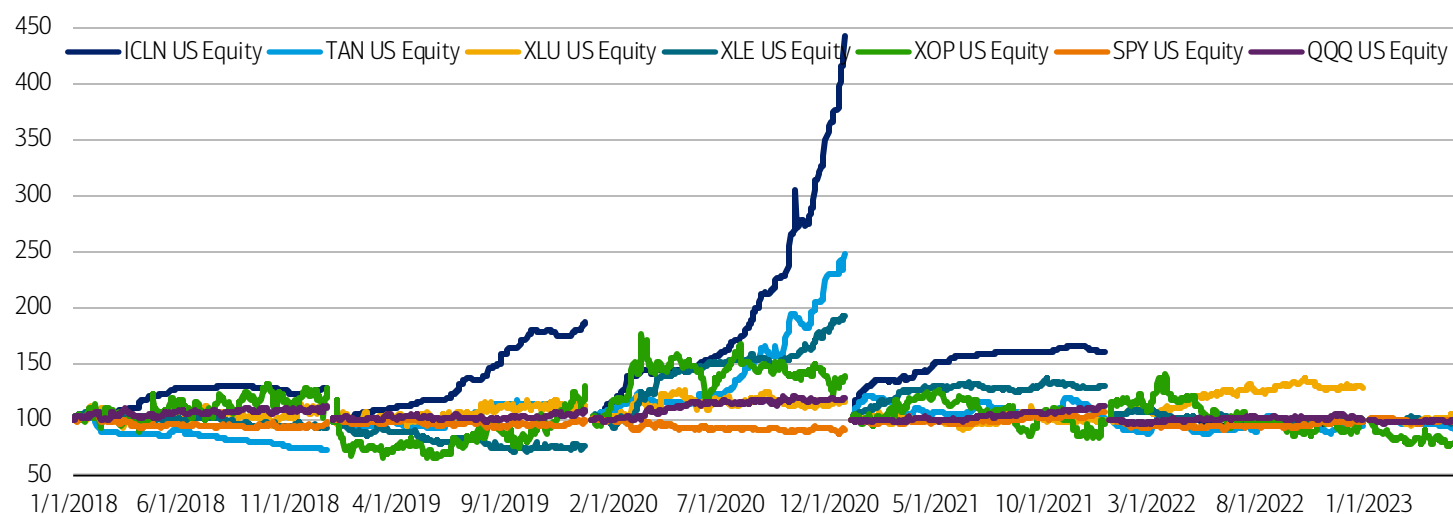
We note disparate investor interest across ICLN and TAN in the earlier years of our analysis when TAN was in significantly less demand than ICLN. Beginning in 2019, ICLN clearly garnered the most investor interest and saw outsized demand versus the broader market, utilities, and energy. Through 2019, funds seemed to flow into cleantech and out of conventional energy (the pair trade that appeared to dictate the space for some time). This rally in cleantech demand continued most notably into 2020, and we saw renewed interest from TAN as well.

After lagging the market in 2019, conventional energy caught a bid in 2020, and funds began pouring back into the sector at an outsized rate, especially versus the broader market, despite the explosion of investor interest in cleantech in 2020. We note that utilities increased demand versus SPY in late 2019 and through 2020, but utilities demand broadly lagged both cleantech and energy during this period.

In 2021, we note a sizable spread between ICLN (which saw the most investor demand) and TAN investor interest, where solar acutely struggled in the face of inflationary pressures and logistics challenges; as regulatory and sector-specific headwinds raged through 2021, solar continued to see less interest than broader cleantech. Through 2021, we highlight strength in conventional energy, which saw renewed investor interest, as commodities rallied. It seems that utilities saw fund flows around the levels of the broader market, but we note that funds often flowed into and out of the other through much of 2021.

**Exhibit 2: ETF Shares Outstanding, Normalized Annually (100 Being the Baseline Value; January 2018 – Present)**

At the beginning of the period, we note clearer sector rotations into cleantech (ICLN and TAN) and out of conventional energy (XLE and XOP) and utilities (XLU). In 2020, however, this trend stopped, as conventional energy (XLE and XOP) garnered renewed investor demand.



Source: BofA Global Research, Bloomberg

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**ETF share performance: Technology ETF leads pack**

Below we show ETF share price performance which we normalized annually beginning in January of each year for 2022 to the present. We compare cleantech, utilities, and conventional energy against the broader market.

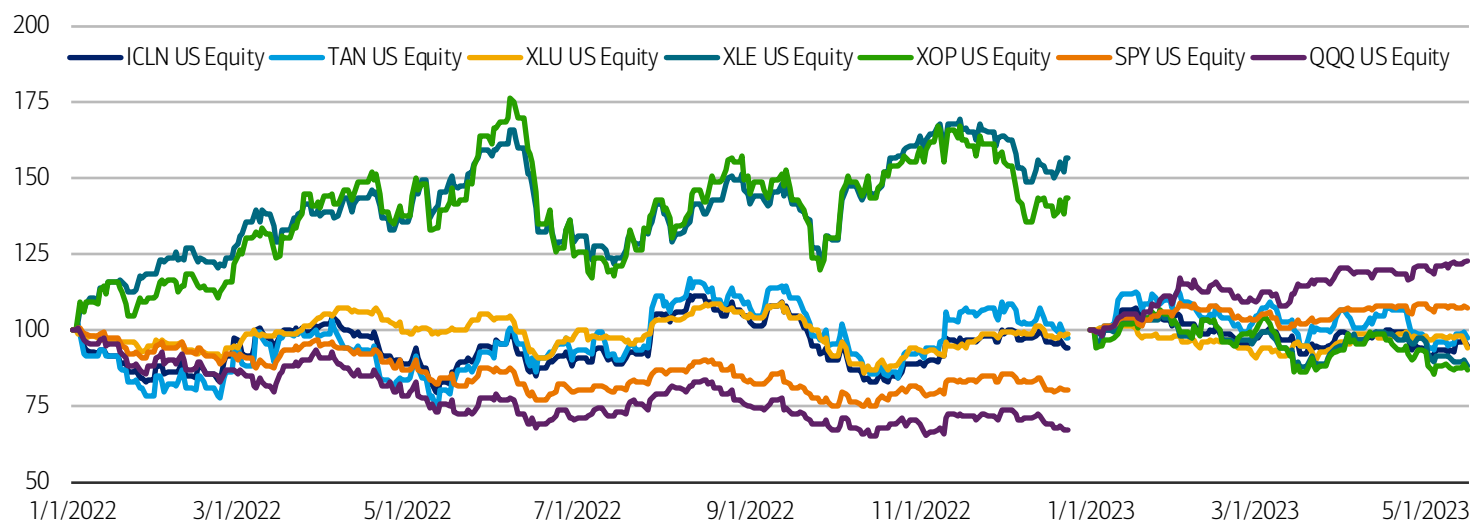
Since the start of 2023, we observe a clear outperformance of technology (QQQ), as large tech, mega-cap equities. SPY and the broader market also outperformed our energy and utilities comparable universe YTD, despite recent volatility. TAN has broadly outperformed ICLN, which aligns with our favorable views of utility scale solar throughout 2023. As Uyghur Forced Labor Prevention Act (UFLPA) related solar module detentions subside, we have observed a recovery in solar sector sentiment, which mirrors the outperformance of broader cleantech YTD.

Utilities and conventional energy, however, have seen share price declines since the start of this year; this follows tremendous outperformance for conventional energy throughout 2022. Our more commodity exposed equities like Constellation Energy (CEG) and Vistra (VST) similarly have an outsized correlation between gross margin and commodities, so this relationship is consistent with the fundamentals. We note that hard assets and commodity linked sectors have struggled against the outperformance in technology stocks YTD. Since QQQ shares outstanding are relatively stable over the same timeframe, we argue there may be some sector rotation among broader capital flows rather than net increases in demand for growth linked equities. QQQ is likely recovering lost gains through extensive sector pressures in 2022.

Through last year, we observe the clear outperformance of traditional energy versus all other sectors. Although both XLE and XOP shares were volatile, shares recovered most lost gains by year end 2022. Around the passage of the IRA, cleantech and utilities rallied, given obvious read-throughs, but as the year progressed, cleantech gave back much of the IRA gains, given sector specific operating pressures. Interest rate concerns were top of mind for investors through 2022, and we argue that rate movements will continue to drive sector performance for the near term. While rates are the critical focus, we argue investors may be less willing to credit IRA benefits, as the macro backdrop dictates near-term trading dynamics.

**Exhibit 3: ETF Share Prices, Normalized Annually (100 Being the Baseline Value; January 2022 – Present)**

Throughout 2022, conventional energy (XLE and XOP) was the clear winner, building on its momentum in 2021. Utilities (XLU) and cleantech (ICLN and TAN) have outperformed the broader market (SPY) this year, but recent trading is impacted by the challenged macro backdrop. We highlight potential rotation out of cleantech and utilities into conventional energy in the last several weeks.



Source: BofA Global Research, Bloomberg

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**Providing historical context for ETF share price performance**

Below we display the same shares price analysis across cleantech, utilities, and conventional energy versus the broader market, but we focus on 2018 to the present to offer historical context. We normalize share price data at the start of each year beginning in 2018.

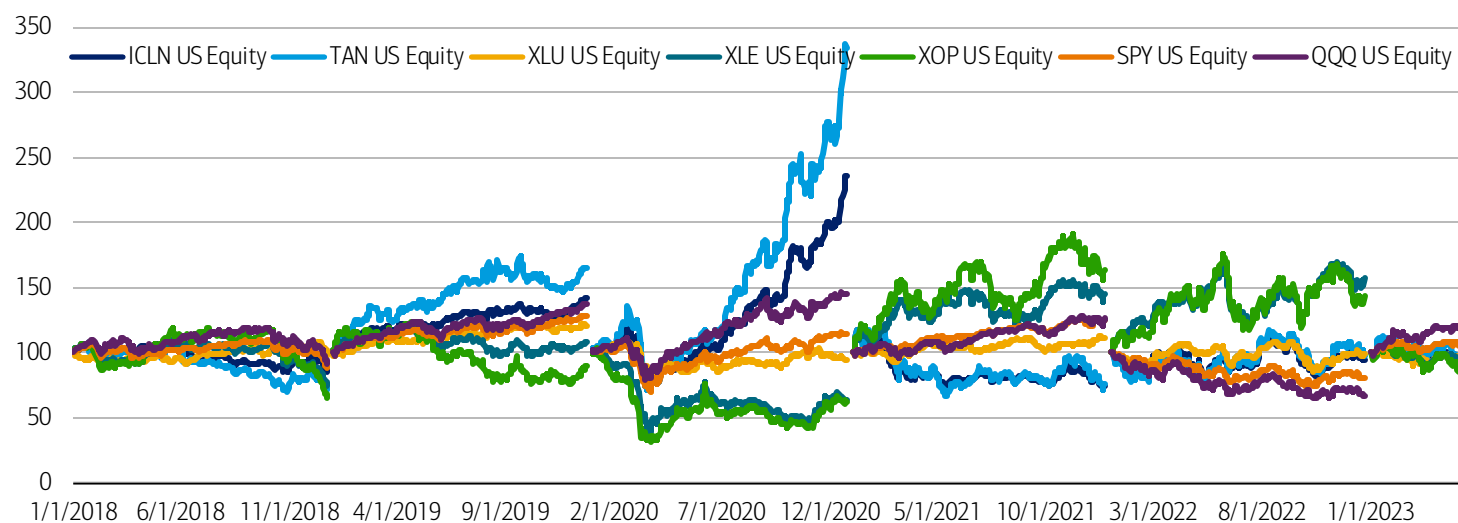
In 2018, cleantech lagged energy, utilities, and the market, but in 2019, cleantech began to rally. There were modest gaps between TAN and ICLN in 2019 and 2020, when TAN was the clear outperformer. In 2019 and 2020, cleantech widely outperformed the market, utilities, and conventional energy. In both years, we note the negative correlation between cleantech and energy ETF performance. In the early years of our analysis, utilities and energy underperformed the broader market, while energy was the clear laggard. In 2021, energy shares clearly rallied against the strengthening commodities backdrop. We note disparate trading of conventional energy and cleantech, as it seems that the two sectors were negatively correlated, as funds flowed out of cleantech and back into energy. Throughout 2021, utilities underperformed the market, but cleantech was the obvious laggard for much of 2021, falling off highs at the start of the year.

Cleantech had 'off the charts' positive performance in 2020 but has not been able to recapture that investor excitement since.



**Exhibit 4: ETF Share Prices, Normalized Annually (100 Being the Baseline Value; January 2018 – Present)**

After outsized returns in 2021 and 2022, conventional energy has fallen under some pricing pressure since the start of the year; cleantech remains volatile in recent years and utilities appear more stable, as investors chase yield but company-specific and sector challenges persist



Source: BofA Global Research, Bloomberg

**Exhibit 5: Stocks mentioned**

Prices and ratings of stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
ICLN	ICLN US	iShares Global Clean	US\$ 18.5	1-NV
XLU	XLU US	SPDR Utilities ETF	US\$ 64.59	1-NV
XLE	XLE US	SPDR Energy ETF	US\$ 78.77	1-FV
XOP	XOP US	Oil&Gas Exp ETF	US\$ 122.34	2-FV

Source: BofA Global Research

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Underperform	N/A	≥ 20%

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