RC GLOBAL
FUNDS MANAGEMENT

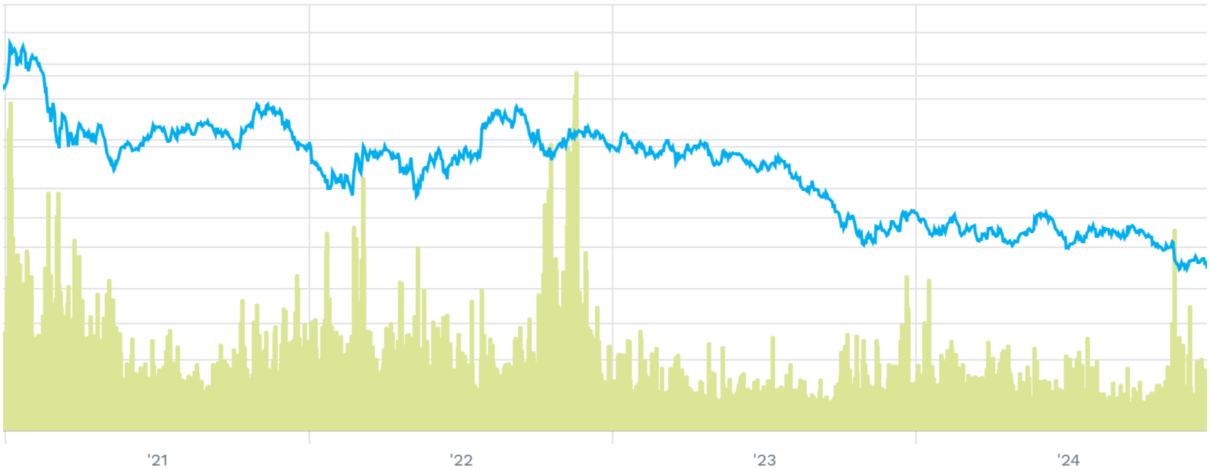
Global Energy and Power in 2024

1. **Clean Energy has been the worst performing segment again**
2. **China leads globally in Renewable Energy**
3. **US continued to power ahead in oil production**
4. **The best performing oil and gas stocks are outside of US**
5. **Changing Big Oils**
6. **Our worst performing Energy Stocks in 2024**
7. **The best performing Energy companies in 2024**
8. **Most promising area in the Natural Gas value chain.**

1. Clean Energy sector has yet again been the worst performing segment

This segment, as represented by the MSCI Global Alternative Index, has halved in value since the beginning of 2021- see chart below:

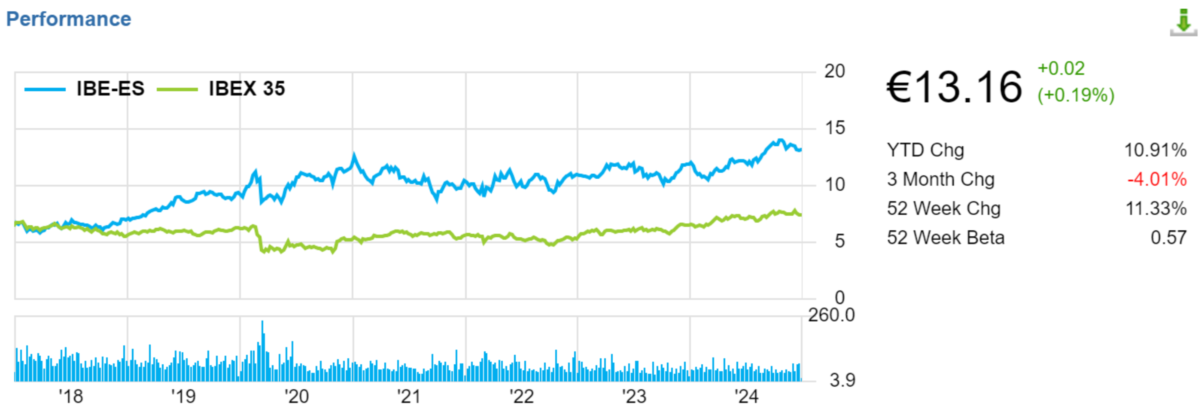
The largest clean energy ETF which best represents this index is **iShares Global Clean ETF - ticker ICLN** shown below, its size has dropped from US$6.4 billion in Dec 2021 to just $1 billion recently.



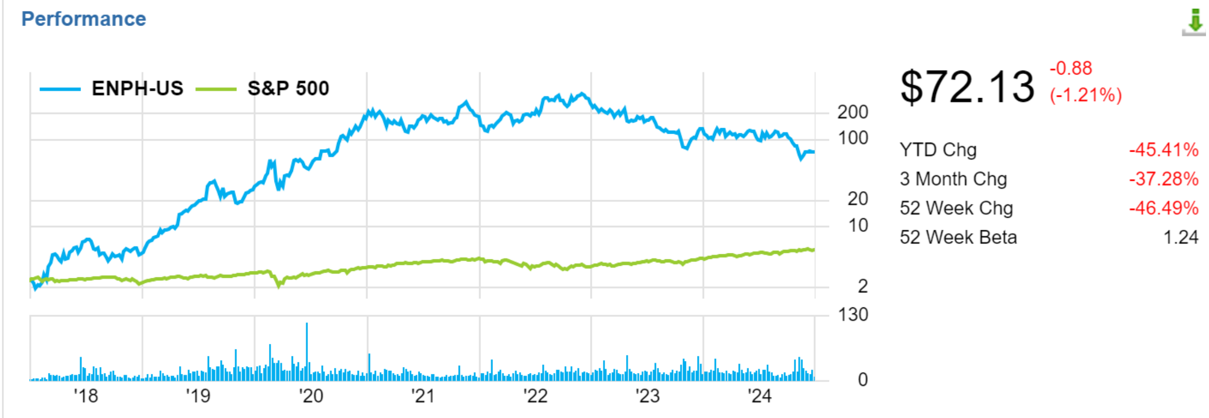
The ICLN is down ~26% YTD. It's no surprise that clean energy sentiment is poor due to the combination of a lack of profits, uncertainties following recent US elections on the pace of energy transition, the over-supply of solar equipment globally and the high costs of offshore equipment causing many projects to be cancelled.

Bottom line: We continue to favour companies that have a clean energy exposure but generate profits in conventional energy, the No 5 stock holding in ICLN **Iberdrola** Spain is a good example and another is **Enel** Italy, both of which we hold in the Fund.

Good -Iberdrola is +10.9% YTD



Bad – Enphase Energy which is a solar pure play (solar inverter) is down 45.4% YTD



Single segment ETFs performed dismally - Invesco Solar ETF -TAN (size $827 million) is down -36.5% YTD and Global X Wind Energy ETF -WNDY (size $2 million) is -21.5% and the worst of all is Global X Hydrogen -HYDR (size $37 million) falling -32.5% YTD. Clean hydrogen projects have been slow to get off the ground – a combination of uncertainty over policy support which has driven liquidity concerns. 2025 will be another transition year for clean hydrogen and while early adopters (oil refining, fertilizers, chemicals) have been integrating electrolysers into their operations, wider adoption from new sectors like power generation and transport remains years away based on current economics.

However, looking beyond listed equities the destroyed value as highlighted above, energy transition continues to gain momentum with global solar capacity growing ~30% in 2024 and global EV demand growing at ~20%. with US solar module capacity sitting around 50GW up from ~16GW in 2023.

2. China leads the world in Renewable Energy growth

China achieved a major milestone in renewable energy development with installations of wind and solar power generating units surpassing 1.2 billion kilowatts, six years ahead of schedule as declared by the National Energy Administration in November 2024.

As of end Sept, installed capacity of renewable energy power generating units reached 1.73 billion kW, a year-on-year increase of 25% and accounting for 54.7% of the total installed capacity in China. This includes hydropower installations of 430 million kW, wind power installations of 480 million kW, solar power installations of 770 million kW and biomass power installations of 46 million kW.

China has a total installed capacity of 3.16 billion KW

In the first 3 quarters, power generated from renewable energy sources reached 2.51 trillion kwh, up 20.9% on a year-on-year basis, representing 35.5% of total electricity. Combined electricity generated from wind and solar power reached 1.349 trillion kWh, a 26.3% increase yoy nearly matching the electricity consumption of the tertiary sector (1.3953 trillion KWh) and surpassing that of urban and rural residentials 91.1721 KWh).

China has continuously enhanced its energy security capabilities, vigorously promoted the green and low carbon transformation of the energy industry, strengthened the development of new growth drivers through technological innovation, invigorated development though deepening reforms and the establishment of a new type of energy system such as storage and ensuring power supply during peak hours. At the end of 3Q24 China had 58.52 million kW of operational new types of energy storage (excluding pumped storage hydro) facilities, an increase of 86% versus end of 2023.

China has a total installed capacity of 3.16 billion KW at end of Sept 2024, a 14.1% increase year-on-year

3. US continued to power ahead in oil production

The U.S. oil production reached a new record high in 2024, surpassing the previous record set in 2023. Despite ongoing concerns about global economic volatility, energy transition policies and fluctuating demand, the U.S. energy sector has demonstrated its unmatched resilience and innovation. In 2023, U.S. oil production reached a record high, surpassing 12.9 million barrels per day, solidifying the country's position as the world's top oil producer. Building on the record-breaking momentum of 2023, 2024 has proven to be another landmark year for oil production.

A Second Consecutive Oil Production Record - According to data from the U.S. Energy Information Administration (EIA), production had averaged 13.249 million BPD year-to-date through December 13, 2024. Cumulative production for the year is estimated at 4.611 billion barrels by that date—just 110 million barrels shy of the previous annual record. Given that producers have consistently exceeded 13 million BPD since January, the record likely fell by late Dec, 2024 (NB we do not expect to get the final number for another few weeks).

The Driving Forces Behind the Production Record - The new record highlights the role of enhanced recovery techniques like precision fracking and improved drilling technologies, which have unlocked greater productivity from key oil fields. The Permian Basin continues to be the powerhouse of U.S. production, contributing a significant share of the growth through its cost-efficient operations. High demand for U.S. crude oil, particularly from Europe and Asia, has spurred production. Robust pipeline infrastructure and export terminals have further supported this expansion, enabling seamless transportation to international buyers.

While these achievements are commendable, challenges remain. Addressing environmental concerns and aligning production with long-term sustainability goals will require ongoing investment in emissions-reduction initiatives and cleaner technologies. Balancing these priorities with the need for short-term growth will be key for the sector's future.

4. The best performing oil and gas stocks are outside of US - none of the best performing energy sector companies in 2024 came from the US. Looking at the best performers of stocks with market cap >$12 billion:

1.	CNOOC	China	+54.2%
2.	ENEOS	Japan	+53.5%
3	PetroChina	China	+26.1%
4	Suncor	Canada	+25.0%
5	Imperial Oil	Canada	+21.5%

5. Big Oil Becoming Big Energy - key Trends

- A few major European oil and gas companies are pulling back from new investments in Renewable Energy or exiting offshore wind and EV Charging, questioning these strategies citing project economics- including BP and TotalEnergies.
- In the US, ExxonMobil had been quiet about new energies, with questions from some investors about why the company is not doing more in renewables.

- More recently however, the ExxonMobil has been rolling out its strategy which includes low-carbon hydrogen, carbon capture and storage (CCS), biofuels. Equinor Norway and Chevron are also pushing ahead in CCS
- Chevron has also announced its first major cutback in capex spend which, together with the Europeans pulling back on renewables, will likely result in greater shareholder returns -both dividends and buybacks for the Big Oils.

6. The Fund's worst performing Energy Stocks in 2024

Two each from Energy Producers and Oil Services

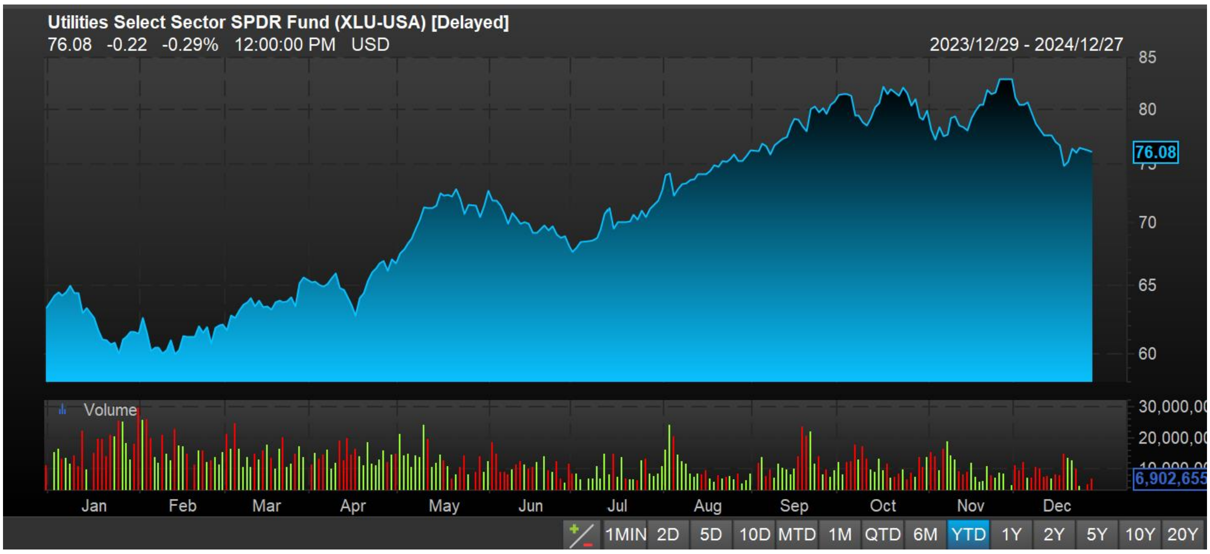
APA	US	Energy Producer	-35.5%
Transocean	US	Equipment & Oil Services	-30.7%
Woodside Energy	Australia	Energy Producer	-14.9%
Schlumberger	US	Equipment & Oil Services	-14.5%

7. What types of Energy stocks performed best in 2024?

Clearly the big winners are US utilities in particular, those with nuclear power plants as shown below. Outside the US, YTL Power Malaysia posted very strong returns.

Vistra	**US**	**Utilities**	**+266%**
Talen Energy	**US**	**Utilities**	**+213%**
Constellation Energy	**US**	**Utilities**	**+95%**
NRG Energy	**US**	**Utilities**	**+82%**
YTL Power	**Malaysia**	**Utilities**	**+73%**

The largest Utilities ETF is issued by State Street Global Advisors is called the Utilities Select Sector SPDR Fund **- ticker XLU its size has grown to $16.54 billion.**



We currently own 4 of the top 10 holdings in the ETF: **Constellation Energy (CEG), Vistra (VST), Dominion Energy (D) and Public Service Enterprise (PEG).**

8 Natural Gas Momentum is set to continue

While the world is facing the inevitable peaking of oil consumption in the coming decade, it is likely to continue to need more natural gas especially to meet the power demand from datacentres which is predominantly driven by demands of AI. The two largest exporters will be US and Qatar.

The US moratorium on LNG liquefaction projects (announced in January 2024) will be short-lived with the new administration taking over in January.

Global liquefaction capacity stands at ~480 MTPA (US has ~20% market share). With a slew of US liquefaction projects on the drawing board, the US could add ~130 MTPA of capacity through 2027 driving 2x-2.5x US liquefaction capacity growth. Next, Qatar (~15% market share) plans to add nearly 80 MTPA through 2027 driving ~60% of growth in the country's liquefaction capacity. Australia now in third place.

We are positive on the entire natural gas value chain.

1. Major US oil and gas producers – **ExxonMobil, Chevron and ConocoPhillips** and the largest pure natural gas producer EQT.
2. US Pipelines and Infrastructure plays – **Kinder Morgan**, **Cheniere Energy, New Fortress Energy.**
3. European-based major oil and gas producers **-Shell (UK), TotalEnergies (France), BP (UK), ENI (Italy) but Equinor Norway could be the biggest winner of this group, i**t operates numerous gas fields in the North Sea and the Norwegian Continental Shelf and is a key supplier to Europe.
4. US utilities which generate highest proportion of power from natural gas- **NextEra, Duke, Southern, Exelon, Dominion and Public Service Enterprise**
5. Sitting outside the Energy and Utilities sectors, **Siemens Energy** ,**GE Vernova** and **Mitsubishi Heavy Industries** in the Industrial sector count as top 3 gas turbine equipment companies globally for power generation.

All material in this article is general information only and does not consider any individual's investment objectives.

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