COLUMBIA THREADNEEDLE INVESTMENTS

Investment conclusions from 2023's clean energy sell-off

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- **The clean energy index had a tough 2023, but we believe there was an overreaction in markets that didn't appreciate the nuance of the energy transition**
- **Idiosyncratic issues at a handful of large renewables players, and wider negative sentiment, were incorrectly extrapolated to the whole renewables space and dragged almost all renewables-exposed names down**
- **Having disentangled the noise from the fundamentals, company-specific issues from industry developments, we disagree with the market's reaction – we remain positive about clean energy and see investment opportunities in selective names**

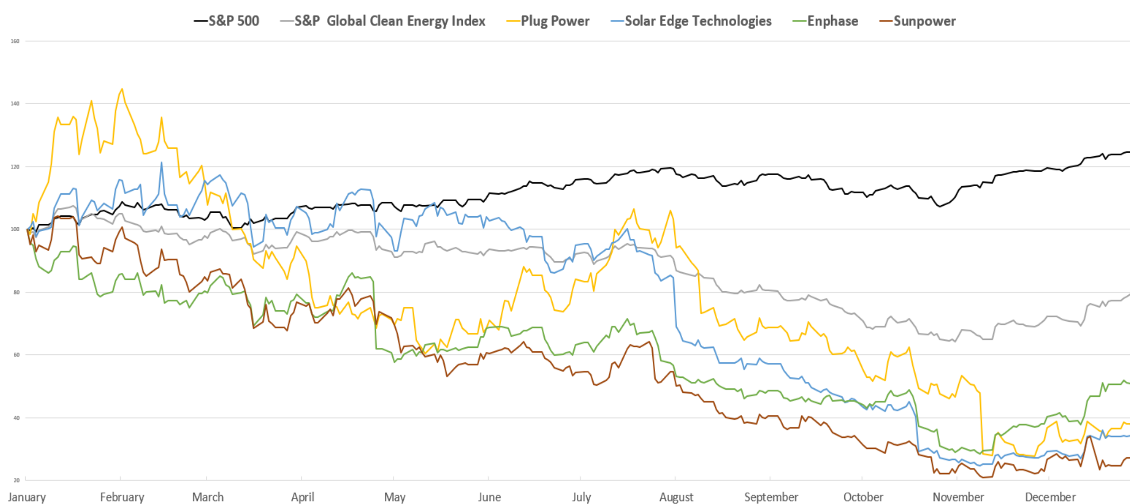
As long-term investors it is always important to take a step back, assess the bigger picture, understand the moving parts and appreciate the nuances. The energy transition is a structural theme that demands just that approach. It is going to play out across multiple decades and will create structural growth – but rarely in a straight manner. As we always say, the journey is going to be bumpy. The sell off in clean energy last year was a bump on this road.

Clean energy stocks materially underperformed the market in 2023. This was due to a combination of negative company-specific developments and industry headwinds that caused investor confusion and generated many negative headlines. The thematic and industry analyst teams at Columbia Threadneedle Investments did a deep dive in order to separate the noise from the fundamentals, the idiosyncratic events from wider industry challenges, and assess the investment opportunities.

The S&P Global Clean Energy Index had a difficult year (Figure 1). However, the clean energy universe includes a wide range of stocks, so we must differentiate between the pure thematic clean tech players and the rest of the universe that includes renewables, utilities and green industrials.

In this regard, the steep decline we observed was due to a correction among pure thematic players who had benefited from expensive valuations driven by a "greenium" and euphoria around environmental, social and governance (ESG) issues that drove large inflows. Numerous companies in this category actually had negative profitability. In a more difficult macro environment that saw a reverse of ESG inflows, they experienced a natural correction.

Figure 1: a comparative struggle for clean tech stocks



Source: Columbia Threadneedle Investments, 2 January 2023 - 29 December 2023

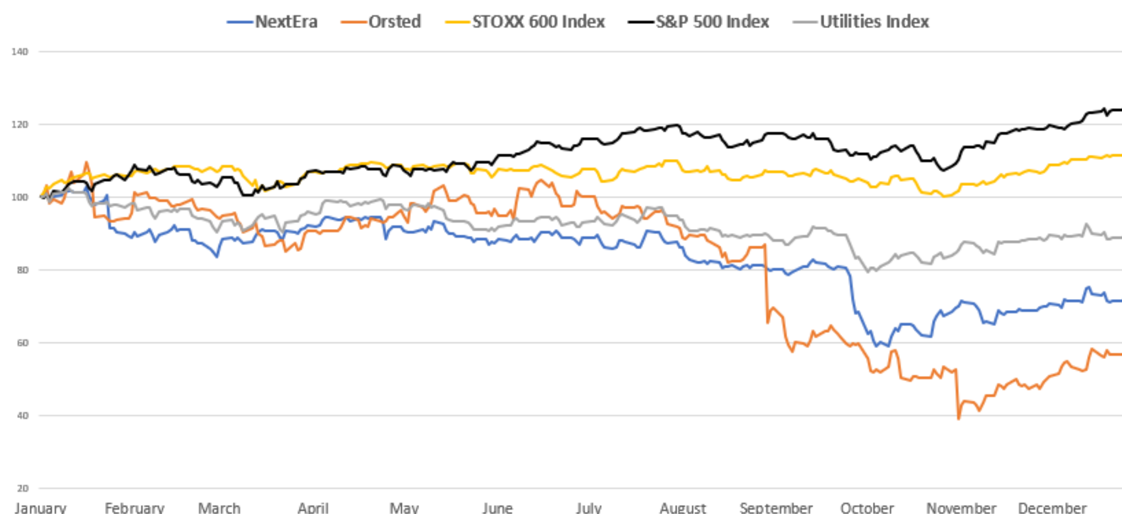
In our analysis, however, we applied a narrower focus on the clean energy universe and looked at utilities as they are behind the large investments in the shift to clean energy.

Utility firms also underperformed the market but not as much as clean tech (Figure 2). It is useful to reflect on utilities over the past five years and how they got here. We think they peaked in 2020/21 when the energy transition became fundamental – not just in terms of decarbonisation but for energy security. In this period we saw good growth and pricing visibility. From 2021-23, however, the focus moved to returns. As a capital-intensive industry, the macro environment challenged the economics of utilities. As we will explain, we think that despite macro pressures, returns were largely preserved.

However, it is true that the utilities sector suffered a large pullback in Q4, largely driven by negative developments at two large renewables players, Orsted and NextEra.[1] These companies were viewed as the darlings of the renewables story, and a combination of idiosyncratic issues at these businesses, and wider negative sentiment, dragged the whole space down.

[1] Mention of specific stocks is not a recommendation to buy or sell

Figure 2: a tough Q4 for renewables players



Source: Columbia Threadneedle Investments, 2 January 2023 - 29 December 2023

Company-specific developments

Orsted is the world's largest offshore wind developer[2]. It built a large catalogue of projects before the Covid pandemic when inflation and interest rates were low. When rates and inflation picked up it was locked into very expensive projects that were now uneconomic.

The broader issues affecting the company also underscore the systemic challenges the wider offshore industry faces that the market did not necessarily appreciate. These include:

- Offshore wind projects are more capex intensive than solar and onshore given their complexity and longer permitting timelines.
- Offshore supply chains are immature and complex, facing delays, bottlenecks and design issues. Hence it faces big inflationary pressures, for example, labour and shipping costs.
- Whilst renewables and power prices were all rising – and solar and onshore wind were able to more than pass through the costs – offshore wind projects, due to their size and scale, go through auctions run by governments/regulators, who were not raising prices. This added to pressure on returns

Due to such challenges, many projects became uneconomic and were cancelled, or developers didn't bid for projects as the price offered was too low. However, towards the end of the year we started to see positive signals from governments in support of the offshore wind industry, such as announcing increases of auction prices in New York[3] and UK[4] auctions for example.

[2] Orsted, Offshore wind energy, 2024

[3] BloombergNEF, New York Hits Offshore Wind Reset, But at a Steep Price,, January 2024[4] Bloomberg NEF, UK Ramps Up Wind Farm Support to Revive Crisis-Hit Industry, 16 November 2023[5] NextEra Energy, Renewable Energy, 2023

[4] Bloomberg NEF, UK Ramps Up Wind Farm Support to Revive Crisis-Hit Industry, 16 November 2023[5] NextEra Energy, Renewable Energy, 2023

Such challenges are unique to the offshore industry. We believe they are being fixed, so the industry is not "broken", it is simply readjusting. However, the market incorrectly extrapolated them to the whole utilities sector without discriminating between renewable technologies, networks and companies.

NextEra, meanwhile, is the largest renewable developer in the US[5]. In September, NextEra Partners, a yieldco funding structure 51% owned by NextEra, lowered its distribution rate alluding to higher financing costs. This spooked markets and NextEra dropped significantly.[6] However, yieldco structures are a small source of funding for NextEra and for utilities in general, so again we feel the negative reaction was unnecessary. Indeed, the company reported results weeks after this which showed record renewables bookings and strong returns in 2023.[7]

In the wake of these problems, we believe the market overreacted. If you disentangle the company-specific issues from the industry fundamentals, headwinds and tailwinds, it confirms our positive view on the near- and long-term prospects of the energy transition and the opportunities we see in selective names.

Industry fundamentals: headwinds and tailwinds

Why exactly did the market take such a negative view across the whole utilities and renewables space? We believe there was a lack of appreciation of some of the risks in offshore in particular, as well as a lack of knowledge of the levers the industry has to offset these challenges and appreciation of the differences across renewables and networks.

There are four main headwinds that became acute last year: high interest rates and hence higher cost of capital; high inflation and hence higher development costs; grid bottlenecks; and supply chain challenges.

There are also four levers the industry use to offset these challenges: higher power and renewables prices ; falling input costs; US Inflation Reduction Act (IRA) tax credits; and strong growth of renewables.

So although renewable costs are higher, solar and onshore were able to pass on those cost through higher prices –. around 50% in the US and 70% in EU[8], a trend that has been confirmed by companies in their Q4 results.

The other important dynamic is that renewables costs are starting a downward trend. Over the past two years there has been a notable increase in input costs, but over the past year we have seen prices coming down. So, cost deflation is underway.

On top of this, a final robust dynamic is the growth of clean energy. Markets assumed these headwinds would lead to a slowdown in renewables projects, which has not been the case. The IEA reports that global installation of renewable capacity accelerated by a record 50% in 2023 despite rising capital and input costs (Figure 3). As a result, the IEA has revised up its global renewables forecast for this year by 33%.[9]

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[5] NextEra Energy, Renewable Energy, 2023

[6] Investopedia, NextEra Energy Subsidiary Cuts Distribution Growth Outlook and Shares Sink, 27 September 2023

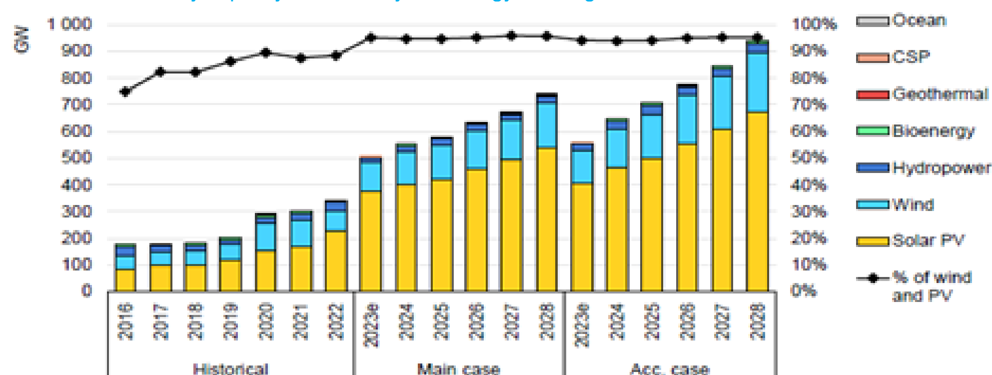
[7] NextEra, Quarterly Earnings 2023, October 2023

[8] Bernstein, Renewables Infrastructure: 5 reasons why the sector can still work in a higher for longer rate environment, 10 October 2023

[9] IEA Renewables Market Report, 2023

Figure 3: record rate of renewables installations in 2023

Renewable electricity capacity additions by technology and segement



Source: IEA, Renewables Market Report, 2023

Investment conclusions

As long-term investors we navigate short-term swings. We use our intense and deep research to understand all the moving parts and see short-term setbacks as potential investment opportunities. From this analysis, we believe the market took an overly pessimistic view on the renewables sector in 2023 – a broad-brush approach that didn't appreciate the industry's secular tailwinds or differentiate between players. Thus, our investment thesis on the energy transition has not changed. We still see positive and strong growth, albeit not without hurdles in terms of slow permitting, supply chain challenges and growing grid bottlenecks and connection queues.

In this regard, with respect to utilities we favourably view vertically integrated names and networks, and those with capital discipline, strong balance sheets and diversified portfolios that were caught up in the market overreaction and oversold. We expect the growing realisation of the critical need to invest in the grid to accommodate renewables penetration and electrification demand to drive further expansion in network capex, so we also see opportunities in industrials names with attractive exposures to grid upgrading and modernisation, and/or are solutions providers of electrical infrastructure and energy efficiency.

Our overarching conclusions on the clean energy theme were:

- The energy transition is a long structural theme that will continue to be bumpy, not linear, and will bring winners and losers.
- The past couple of years have been more complicated with lots of moving parts – macro, policies, geopolitics – but our intense research and ability to step back and see the big picture, dig deep into a theme, the wider industry and stock specifics, and being close to companies' management has helped us manage this period well with regards to investments in this space: avoiding pain in 2022, outperforming in 2023 and being well positioned into 2024

As we get into this year, we will pay close attention to the impact of declining power prices, as well as the implications of election risks as uncertainty about these could weigh on the theme. It remains an exciting time for the sector.

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