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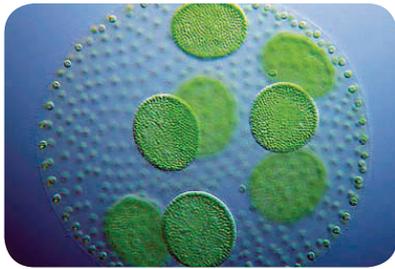
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STRONG TAILWINDS, BUT CLEAN ENERGY SHARE PRICES REMAIN BECALMED

MONTHLY VIP BRIEF



By Michael
Liebreich

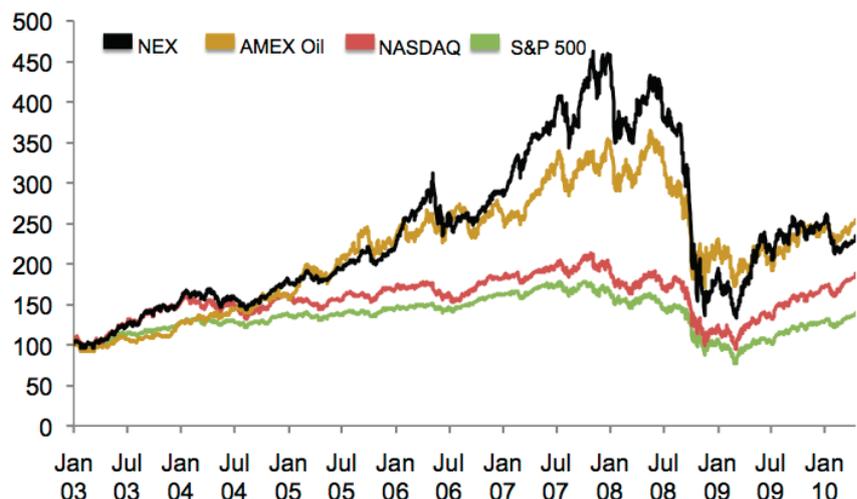
Chief Executive,
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Energy Finance

Since the end of last year, the news flow in the clean energy sector has been predominantly positive, yet share prices have remained becalmed. Since the disappointment of the Copenhagen COP 15 meeting last year, the policy emphasis has continued to shift from carbon to renewable energy and energy efficiency, so why have clean energy share prices been stuck in the doldrums?

On 15 April 2010, the WilderHill New Energy Global Innovation Index, or NEX, which tracks the performance of 88 clean energy stocks worldwide, was at 233 – still 40% down on its level of exactly two years before. The lack of movement over the past three quarters is all the more extraordinary when seen in the context of wider stock market indices sailing on to their best levels since Lehman Brothers' collapse.

Taking a quarterly look at the performance of the NEX, and comparing it to the S&P 500, you can clearly see the dramatic adjustment which took place in Q3 2008 – when Lehman collapsed and the market suddenly realised clean energy companies were cash-hungry energy stocks, with added exposure to technology

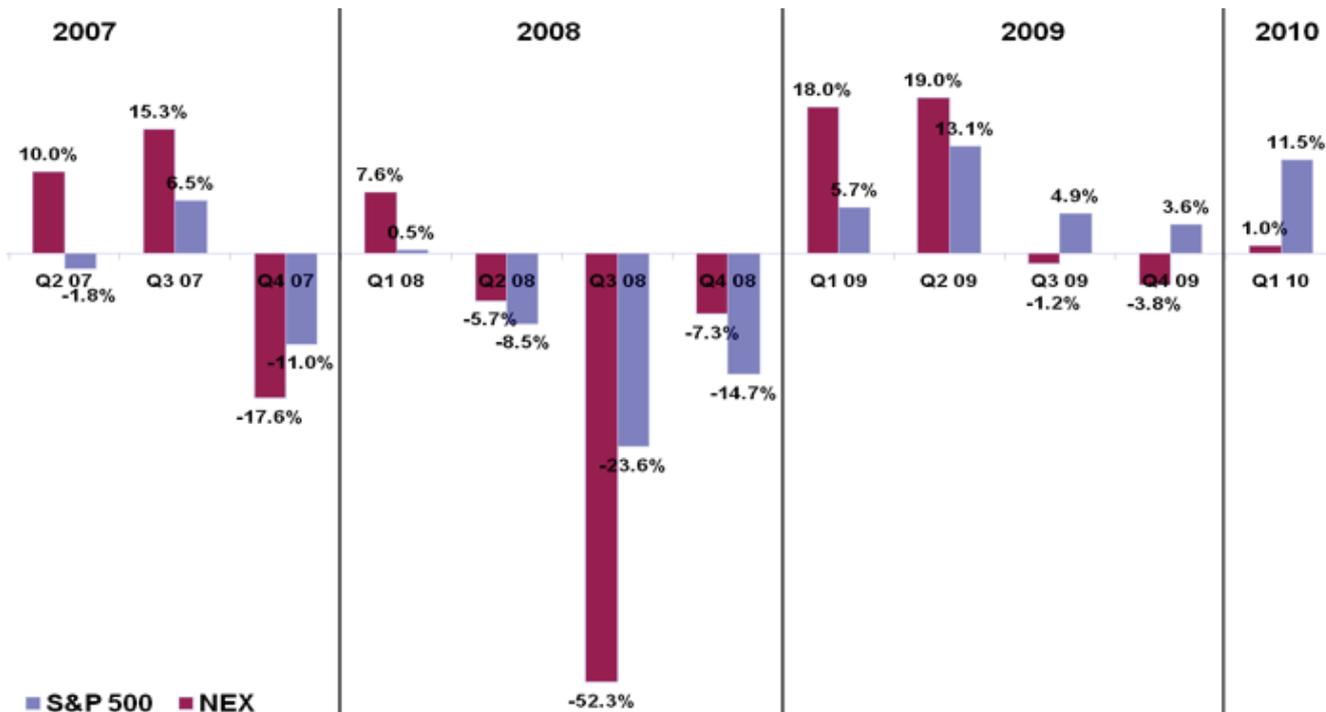
FIGURE 1: NEX index, 2003 – 2010



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FIGURE 2: NEX AND S&P 500 QUARTERLY PERFORMANCE, 2007 - 2010



and policy risk. However, how does one explain why, over the past three quarters, the S&P 500 is up over 20%, while the NEX has been essentially flat? Is that not odd, for an industry that is supposed to represent one of the big investment themes for the next two decades, benefiting hugely from huge infusions of public money and political air cover?

Let us take a look at some of that positive news flow. Clean energy investment has been enjoying year-on-year growth once again for the last two quarters, after taking a substantial hit at the end of 2008 and the beginning of 2009. For the whole of 2009, Bloomberg New Energy Finance's figures showed that investment was down only 6.7% on 2008, buoyed up by surging activity in Asia, and by the world's development banks, which opened their coffers to the tune of over \$20bn during the year.

New financial investment (in other words asset finance, public market investment, venture capital and private equity) in clean energy worldwide was \$27.3bn in Q1 2010, up 31% on the same quarter of 2009. It is true that this was around 20% lower than the average of the final three quarters of last year, but the first quarter has tended to be the quietest in each of the most recent years. That may be a

reflection of the effect of winter on project progress in the Northern Hemisphere, and the fact that it seems to take a few months at the beginning of each year for advisors to assemble all the elements they need to launch significant IPOs and secondary issues on public markets.

Asset finance in Europe in Q1 was particularly subdued, at just \$4bn, but there is no weakening trend. Rather, the reason was that none of the big "club" bank financings, often involving the European Investment Bank, in sectors such as offshore wind happened to close before the end of March. Also, unlike Q4 2009 when Germany's feed-in-tariff declined, there was no tariff expiry deadline causing developers to rush projects through.

By contrast the first quarter saw a further extension of the recovery in venture capital and private equity investment. This totalled \$2.9bn, up from \$1.7bn in Q4 and \$1.6bn in the first three months of 2009. VC players are finding exciting technologies to invest in, and they are beginning to glimpse the potential to bolster their own coffers through exits. In the past few months I have met a number of fund managers who had been waiting for good news out of Copenhagen, Washington and Canberra in order to raise their next carbon funds, but who are now switching their

attention to renewable energy technology or asset funds.

All in all, we continue to expect 2010 to be a record year for clean energy investment, up by between 8% and 23%, and taking the final figure to between \$175bn and \$200bn. The increasing disbursement rate of "green stimulus" cash should help, growing from just \$16bn last year to over \$55bn this year. Big improvements in project economics resulting from reduced prices of wind and solar technology will also play a big role.

The second area in which we are seeing more good news than bad is on the international front. The broad political environment for clean energy looked quite threatening at the turn of the year, but has been improving in recent months. All parties have been playing down the likelihood of a binding deal at COP 16 in Cancun, but practical work is under way both on the \$30bn of "Fast Start" money and on creative ways to get the promised \$100bn flowing to the developing world.

Meanwhile, much to everyone's surprise the political backdrop has improved in the US. At the start of 2010, it looked highly unlikely that the US would pass a healthcare bill, let alone line up a bill on carbon cap-and-trade or clean energy

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mandates that had a chance of getting passed by the Senate. Following President Barack Obama's success in forcing through healthcare, there is now a chance that some helpful renewable energy legislation may actually get through Congress. The odds remain heavily against cap-and-trade being part of it, although we might see a watered down bill that covers only power generators and is phased in over a long period.

In the UK election, now at the climax stage of the four-week campaign, all three major parties have put clean energy high up their list of priorities. The industry made page four of the Labour manifesto, page five of the Conservative manifesto, and page 11 of the Liberal Democrats' document. All three parties want to see fresh moves, including a Green Investment Bank, to spur on investment in technologies such as offshore wind.

Some of the most significant policy developments have been taking place away from the limelight. Brazil continues to show promise as a major market for wind (soon) and solar (later). The country is home to extraordinary natural resources and is now rolling out a series of clean energy tenders. Peru has followed Brazil's lead in holding national auctions for the contract to build and operate 400MW of clean energy capacity, eschewing the easy route of a feed-in tariff in the hope of using price discovery to keep the excess cost of clean energy as low as possible.

So what other potential explanations are there for the sluggishness in clean energy stocks?

First, in Europe the news flow has been dominated by talk of accelerated cuts in feed-in tariffs. Company financial statements, particularly from the solar supply chain, have continued to be mixed, reflecting over-capacity and squeezed margins as tariffs come down. Although there has been a lot of commentary about the effect of cutbacks in feed-in tariffs for renewables by countries such as Germany and the Czech Republic, the reality is that those tariffs were

over-generous, particularly in the light of the near-50% fall in solar PV module prices since their peak in 2008. What we are seeing is that strong players are weathering the difficult market conditions, while weaker players are still under-water - so we would certainly expect to see more consolidation. But for every manufacturer struggling to cover costs, there is a developer enjoying cheap modules. The German grid regulator Bundesnetzagentur revealed an extraordinary, 1.5GW spurt in solar PV installation at the end of last year, as investors rushed to take advantage of generous tariffs before their expiry. Not exactly the sort of news you would expect from a sector in the doldrums.

Second, fossil fuel prices continue to cause uncertainty for clean energy investors. As the economic recovery picks up steam, oil prices have been moving the right way for clean energy, particularly for biofuels and electric cars, but not decisively. Nymex crude oil prices have rebounded from their lows of less than \$35 per barrel in early 2009, and after a long period wavering between \$70 and \$80 per barrel have broken the \$80 barrier. However, they are not moving up decisively enough to drag clean energy shares in their wake.

Electricity and natural gas prices, meanwhile, have remained weak, and this has definitely been one factor dampening enthusiasm for clean energy shares. US gas prices are currently at around \$4/mmbtu, up from the \$2.40 low of last September, but miles below the top of the spike at \$13.50 in mid 2008. Around \$4, it is below its average for the last decade but above its average for the 1990s. Shale gas has hit the public consciousness as a potentially dangerous rival to renewables. During 2008 the extent of exploitable reserves in the US became clear to all, and now it is the turn of Europe and Asia, where speculation about reserves is reaching fever pitch. This is happening despite the fact that in the US, renewable energy advocates are sharpening their knives over the potential environmental impact of the new "fracking" technology, using large volumes of water and potentially toxic chemicals. Indeed

Jim Rogers, chief executive of Duke Energy, told the Bloomberg New Energy Finance Summit in March that the jury was still out on shale gas. Electricity prices - for instance UK or German first winter baseload - are only at around half their peak level in the middle of 2008 (although above their 2009 lows).

And finally there is "Climategate", the scandal which started with the leaking of private emails between scientific experts on global warming. Although it has certainly been embarrassing for the individuals concerned, the underlying body of scientific work showing that man-made climate change is a real and worsening problem has come through largely unscathed.

After a detailed review by an independent panel headed by Lord Oxburgh and published in the middle of this month, the head of the UK's Royal Statistical Society pronounced the statistics behind Michael Mann's famous "Hockey Stick" curve "inappropriate", but agreed that the graph would still show a rising temperature, particularly in the modern period. Bloomberg New Energy Finance's own analysis, most recently in a March Research Note by our carbon markets team Has The Course Of Climate Science Changed? found that while the immediate impact of "Climategate" on popular opinion was not to be under-estimated, the impact on the actual science was minor.

These three negative factors - European tariff cuts, weak energy prices and Climategate - coming after the slow train-crash that was Copenhagen, may be enough to keep investors from piling into the sector. But none of them has any bearing on the long-term direction of the industry.

If you believe that the costs of clean energy will continue to trend downwards, and those of fossil fuels will continue to trend upwards; if you follow the science and realise that the more knowledgeable the researchers, the more worried they are about climate change; if you never believed that the solution was a single big-bang deal in Copenhagen - then you should not expect clean energy shares to continue to under-perform wider markets. ■

As the economic recovery picks up steam, oil prices have been moving the right way for clean energy, particularly for biofuels and electric cars, but not decisively.