

October 2008: Ongoing Declines in Global Clean Energy, as seen in the NEX

Clean energy stocks worldwide saw exceptionally sharp declines in October 2008 as captured by the WilderHill New Energy Global Innovation Index (NEX). Sizeable declines accelerated, with a bottom for the time at least coming in very late October.

London and U.S.A. November 1, 2008 – After September’s strong declines that seemed at the time sizeable, in retrospect they seem moderate: up until its last half-week, October saw remarkably-large declines for the record books in the global Index (NEX). It closed the month of October down -35%, reaching a bottom on the 28th near 151.

Sept. 30 - October 6, 2008

The start of October’s drop began immediately: the NEX finished its first partial week into October by sharply declining to 231, down a staggering 17.6%, and all sectors suffered heavy losses. Nasdaq and S&P 500 also fell but by a more moderate 6.1% and 4.5%, respectively, as the financial crisis deepened. AMEX Oil suffered too, falling 7% as oil dipped below USD 88 per barrel owing to worsening economic outlook on demand.

The biofuels and biomass sector was hardest hit that first week, plummeting 27.1%. A US corn-based bioethanol producer shed 53.8% after that company predicted a Q3 FY08 net loss of at least USD 63m and sought ‘strategic alternatives’. Similarly, a NYSE-listed Chinese biodiesel producer plunged 50.3%. On a more positive and rare note for the first partial week of October 2008, a Nasdaq-listed cellulosic ethanol producer and enzyme developer jumped 35.6% in part after it was reinstated to “buy” by an analyst.

The wind sector shrank 22.3% with all its constituents ending up in negative territory. A Japanese wind developer dropped 38.7% to become the worst performer, followed by a Danish developer that lost 28.9%.

Solar declined 16.2%. A German firm dived 32.4%, while a US string ribbon PV module maker lost 26.4%; also a US-listed Chinese integrated PV maker followed closely with a loss of 26.3%.

Energy efficiency companies retreated 12.9%. Three US companies led the decline: a maker of high temp superconductor wire slumped 39.4%, a demand response provider sank 38.1%, and a smart metering developer slid 18.5%.

Hydrogen and fuel cells, the smallest sector in the NEX, limited losses to an average of 7.5%. A Canadian fuel cell maker dipped 21.9%, while a US competitor rose 12.2%.

October 7 - 13, 2008

The NEX closed the next week to October 13th at 218, down by 5.5% after this turbulent week sent it below a 200 mark--then sharply higher as markets responded well to state intervention to prop up the failing banking system. S&P 500 and Nasdaq declined 5.1%

and 1%, respectively. AMEX Oil dropped 8% on concerns that a possible economic recession would further shrink demand for crude oil.

The worst performing sector was the 'renewable other' sector (mainly made up of mini-hydro and geothermal companies) which sank 10.1%. A Philippine geothermal project developer lost 20.3%. Similarly, a Canadian firm sank 19.6%, and Swiss mini-hydro project developer shed 18.3%.

The solar sector fell 8.9%, led by a Japanese PV cell manufacturer that plummeted 23.8%. A US PV equipment manufacturer and system installer shrank 21.6%, while on a more positive note a German manufacturing equipment provider soared 19.6% as the company said it had been awarded a follow-on contract with an Asian customer to undertake a major polysilicon plant expansion project.

The energy efficiency sector fell 5%. A Japanese efficient motor manufacturer plummeted 25.1% after being downgraded to a 'sell' rating. In contrast a US micro-turbine system developer rose 15.3% after it received a payment of USD 10.5m from a unit of a large US conglomerate for the completion of an important milestone in the development and commercialization of its 200kW micro-turbine.

Wind energy companies dipped 4.7%. A major Danish turbine manufacturer dropped 13.5%, while a Danish wind power project developer surged 23.4%.

Only biofuels and biomass developers held their ground, making a nominal gain of 0.6%. A US bioethanol producer jumped 29.7%, although a Brazilian biodiesel producer fell 27.1%.

October 14 - 20, 2008

The NEX finished next the week to October 20 with still further declines to 209, down 4%. Nasdaq and S&P 500 declined 4% and 1.8%, respectively. In contrast, AMEX Oil climbed 1.5% on the back of a possible OPEC production cut.

The 6.4% fall in the solar sector was led by a NYSE-listed Chinese integrated PV product manufacturer which plummeted 18% after a merchant bank downgraded the company on the grounds that tight credit would hurt development of solar projects next year. The bank also downgraded another US-listed Chinese firm, due to concerns that too large a portion (80%) of its revenue comes from "low quality customers" who may struggle to survive in the financial crisis. The company shed 14.5%. Another US solar panel maker fell 16.7% on decreased sales revenue and widened net loss in Q3 compared with Q2.

The wind sector fell 4.9%. An LSE-listed Belgian turbine gearbox maker slumped 12.6%, closely followed by a Spanish turbine maker that declined 12.5%. In contrast, a Japanese project developer jumped 17.7%.

Energy efficiency companies dropped 4.7% as three US companies suffered major losses amid mass selling on the US equity markets. A smart metering company plummeted

26.3%, an automation systems supplier was down 21.4% and an efficient power conversion device maker shed 19.9%.

Biofuels and biomass developers slid 3%. A Brazilian biodiesel producer sank 18.6%, while a Canadian biomass project developer surged 23.1%.

On a more positive note hydrogen and fuel cells companies gained 3.3%--a small but rare exception in falling markets. A Canadian fuel cell maker soared 17.2% after it signed a deal to supply 10,000 fuel cells to wireless telecom base stations in India.

In addition, the 'renewable – other' sector (mainly made up of mini-hydro and geothermal companies) rose 3.2% as well, as all constituents made modest gains.

October 21-27, 2008

A floor of support that seemed to be around 200 in the NEX broke in this full week, as the Index dropped an exceptional amount: NEX ended the week down 27.4%. Nasdaq and S&P 500 went down 14.9% and 13.9% respectively on growing concerns about recession while AMEX Oil fell by 19.3% prompted by a steep decline in the price of oil.

The solar sector fell by 34.1% over this last full week as the biggest loser. Two US-listed Chinese solar companies contributed, down 47% and 41% respectively. A Norwegian solar wafer producer fell 42% even as it reported strong earnings for Q3 FY08.

Wind followed a close second with a loss of 31.8%. A Danish turbine manufacturer fell 47.3% while a Spanish rival lost 40.1% on rumors of a halt in production at some of its factories. This, despite the company having reported trebled net profits in Q3 FY08.

The hydrogen & fuel cells sector fell 28.9%, as did two big players that fell 33.3% and 26.9% respectively.

Biofuels and biomass fell 25.7%. One US corn based ethanol producer lost 57.4% of its value and another dropped 23.1%. There was some respite for a US based biomass & waste-to-energy player, which fell just 2.7%.

The energy efficiency sector overall saw its value drop by 21.4%; a somewhat better placed US-based firm and a Taiwanese one here saw losses of 2.5% and 3.6% respectively.

The power storage sector fell by 19.4% in this last full week of October, as two players – Japanese battery makers – went down 26.9% and 23.8% respectively. The benchmark Nikkei 225 Index also experienced a loss of 20.5%. We note every sector saw exceptionally strong declines in this last full week of October going through the 27th.

Finally looking ahead we note the NEX reached a low of around 151 the last partial week of October, on the 28th, and it immediately afterwards has jumped by several percent. Thus the month of October 2008 ended its final few days on a noticeable new uptrend.

A Pause, to Look ahead

The clean energy sector has had an exceptionally remarkable past 2-3 months with the share prices of its companies falling even (much) faster than those of the wider markets, and banks struggling to even maintain the flow of finance to new power projects.

The issues of climate change and energy security, which have fuelled policies to encourage renewables until recently, have also dropped off the front pages of newspapers and political speeches as yet another concern – Global Recession – has gripped voters.

However it is also possible that at some point, perhaps not long off, we might possibly see first signs of investors and executives starting to regain their footing and look through these difficulties towards conceivably better conditions in 2009.

On the other hand this could be part of a prolonged fall. And recent slump in oil prices has dampened the ardour of some investors towards renewable energy – though correlation between NEX and the crude price is weak, to say the least, and clean energy was booming at the start of 2007 when oil prices were barely above USD 50-a-barrel.

The ills of Western banks mean, inevitably, that the supply of debt finance for wind farms, solar parks, biofuel plants and the like will be less plentiful than expected, and more expensive, in the months ahead than it has been in the last two years.

Some projects will struggle to get finance for construction. There will be developers that decide to slow the clock down on their pipelines, or sell projects on to those, such as utilities, that have the ready cash to move them to completion.

Deep-pocketed equity investors continue to put money into clean energy. Recently, Masdar, the renewable energy player from Abu Dhabi said it was buying a 20% stake in London Array. London Array is a 1GW offshore wind project 20km off the east coast of England and could be the world's biggest when it is completed in the next decade, at a cost of some USD 4bn.

Private equity houses too continue to have at least some funds available to deploy in clean energy companies as well. In mid-October a US investment house invested USD 80m in an Australian manufacturer of densified biomass fuel pellets for generation in industrial plants and co-firing in coal power stations. The money will be used to build a manufacturing plant in Albany, Western Australia.

Clearly, the savage fall in clean energy shares seen since August that has now exceeded 50% by the latter part of October has been utterly exceptional. And investors got a new round of jitters over the exposure of some of the sector's companies to outside problems.

For much of that September-October 2008 crisis, clean energy shares have suffered because all shares have suffered - and because oil price has collapsed, bringing down the

cost of competing fossil-fuel energy. However in recent days, investors' focus has switched – rightly or wrongly – to the possibility that clean energy companies could have worse problems as a result of the financial crisis than firms in some other sectors.

The downturn in NEX has been dramatic. We note that so negative was investors' mood about global clean energy, that the WilderHill New Energy Global Innovation Index plunged to a four-year low near 150 in October (152 close): this was down an astonishing 59.7% since the end of August – only eight weeks ago – and the lowest figure for years.

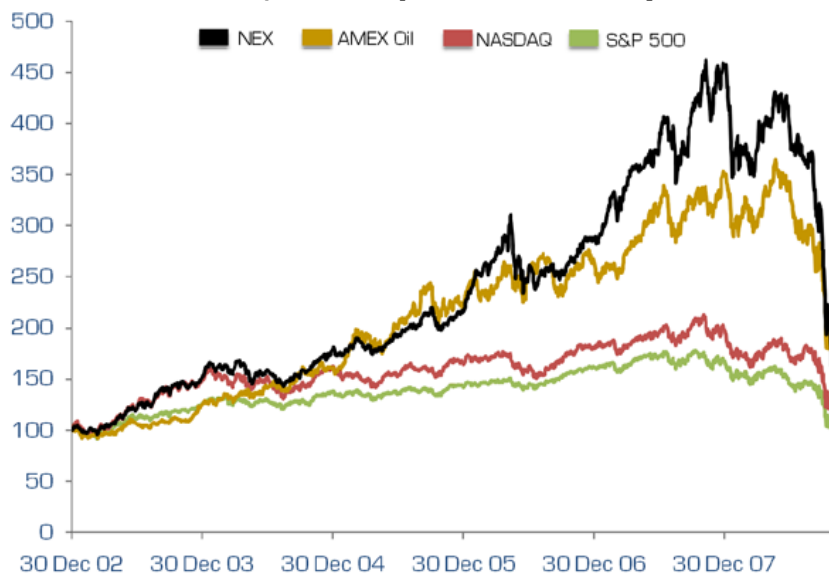
Investors' jumpiness has coincided with a new media interest in whether clean energy and the fight against climate change are going to be casualties of the financial crisis and recession. New Energy Finance has been taking as many calls in recent days from journalists exploring a negative line on the sector as it did a year ago from reporters pursuing a “boom” story.

Prospects for the sector are likely to be much more nuanced. Research published by New Energy Finance this month indicates that there will be a shortage of debt finance for European wind and solar projects and of tax equity finance for US wind and solar projects, in the next few months. What finance is available will be more expensive than a year ago.

However policy backing for the sector remains strong, and utilities and corporations with strong balance sheets will remain active, even if some specialist developers find the going tough. Only last week, a utility announced plans to build a 20MW solar plant in Kawasaki, and two firms unveiled proposals to build 900MW of biomass capacity in the UK.

Finally a bottom, for the time being at least, was made in very late October with the NEX jumping in just a last half-week of that month: whether this becomes a trend remains to be seen. Yet a robust size of that jump and the U.S. elections might be bullish signals ahead.

NEX vs AMEX Oil, Nasdaq and S&P 500 (2002 to October 2008)



End of October 2008 Data

	Index Value 31-Oct-08	Index Performance Since 30-Sep-08	2003 YTD	2006 YTD	2008 YTD
NEX	179.86	-35.0%	79.9%	-16.8%	-60.5%
AMEX Oil	956.71	-17.3%	114.0%	-3.1%	-38.7%
NASDAQ	1720.95	-17.4%	28.5%	-22.0%	-35.1%
S&P 500	968.75	-16.8%	10.2%	-22.4%	-34.0%

Top 5 gainers in terms of % change since 30-Sep-08

	Name	Country	Primary Sector	Exchange	Ticker	Local Curren	Marke Cap USDm	% Change
79	Ultralife Batteries	US	Power Storage	NASDAQ	ULBI	USD	151.4	12.1%
83	Verenium Corp.	US	Renewables - Biofuel	NASDAQ	VRNM	USD	66.5	8.5%
14	Capstone Turbine	US	Energy Efficiency	NASDAQ	CPST	USD	205.1	4.7%
12	BYD Co. Ltd.	Hong Kong	Power Storage	Hong Kong	1211	HKD	952.9	1.2%
25	Ener1	US	Power Storage	AMEX	HEV	USD	820.7	0.3%

Top 5 losers in terms of % change since 30-Sep-08

	Name	Country	Primary Sector	Exchange	Ticker	Local Curren	Marke Cap USDm	% Change
86	Yingli Green Energy	China	Renewable - Solar	NYSE	YGE	USD	668.9	-52.2%
45	JA Solar Holdings	China	Renewable - Solar	NASDAQ	JASO	USD	805.9	-54.6%
41	Hansen Transmissio	UK	Renewable - Wind	London	HSN	GBP	1136.9	-55.2%
38	GT Solar	US	Renewable - Solar	NASDAQ	SOLR	USD	656.4	-57.5%
81	VeraSun Energy Cor	US	Renewables - Biofuel	NYSE	VSE	USD	80.1	-83.7%

OCTOBER 2008 – Monthly Performance by Sector (USD)

Energy Efficiency (18)	-29.0%
Hydrogen & Fuel Cells (3)	-19.3%
Power Storage (8)	-16.7%
Renewable - Other (6)	-24.1%
Renewable - Solar (22)	-41.2%
Renewable - Wind (15)	-41.3%
Renewables - Biofuels & Biomass (16)	-35.7%
Total (88)	-35.0%

Performance by Market Listing (USD)

ASX (2)	-27.7%
Copenhagen (3)	-32.3%
Dublin (1)	-36.3%
EN Brussels (1)	-41.4%
EN Paris (4)	-34.3%
Helsinki (1)	-26.2%
Hong Kong (1)	1.5%
London (3)	-34.9%
Madrid (6)	-37.5%
New Zealand (1)	-20.0%
Oslo (1)	-47.6%
Phillippine (1)	-29.1%
Sao Paulo (3)	-30.9%
Shanghai (1)	-17.6%
Shenzhen (1)	-19.2%

SWX (2)	-24.7%
Taiwan (1)	-11.1%
Tokyo (7)	-29.5%
Toronto (4)	-24.6%
Vienna (1)	-22.3%
XETRA (13)	-44.2%
AMEX (1)	0.3%
NASDAQ NMS (21)	-34.3%
NYSE (11)	-42.4%
Total (88)	-35.0%

Performance by Region (USD)

Americas (35)	-34.8%
Asia & Oceania (19)	-30.4%
Europe, Middle East & Africa (34)	-36.8%
Total (88)	-35.0%

About WilderHill New Energy Global Innovation Index (the NEX Index®)

WilderHill New Energy Global Innovation Index (NEX) is comprised of companies worldwide whose innovative technologies focus on generation and use of cleaner energy, conservation, efficiency and advancing renewable energy generally. Included are lower-carbon approaches relevant to climate change, smarter solutions that avoid greenhouse gases and technologies reducing emissions relative to traditional fossil fuel use. A majority of companies in NEX are listed on exchanges outside of the United States.

The NEX calculates live in several currencies including in the U.S. Dollar, in the Euro, in the Pound Sterling, & in the Japanese Yen.

NEX Index launched February 1, 2006 and is published by WilderHill New Energy Finance LLC as a partnership between New Energy Finance Limited based in London, Joshua Landess based in the U.S, and Dr. Rob Wilder based in the U.S. For more info, <http://www.nexindex.com>

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About New Energy Finance

New Energy Finance is the world's leading independent provider of research to investors in renewable energy, biofuels, low-carbon technologies and the carbon markets. The company's research staff of 50 (based in London, Washington, New York, Beijing, Shanghai, New Delhi, Tel Aviv and Perth) tracks deal flow in venture capital, private equity, M&A, public markets, asset finance and carbon credits around the world.

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About Joshua Landess

Josh Landess is a pioneer in the creation of alternative energy stock market indexes,

creating his first in 2000. In 2004, Landess and Wilder, with the American Stock Exchange led the team that created the WilderHill Clean Energy Index® (ticker: ECO). In January 2006, Landess and Wilder collaborated with New Energy Finance to create The WilderHill New Energy Global Innovation Index, the first global index in New Energy put out over the tape.

About Dr. Rob Wilder

Dr. Rob Wilder is widely published in the fields of energy and environment and is co-Founder and Manager of the WilderHill Clean Energy Index® (ECO), the first index of companies for renewable energy, energy efficiency and lower-carbon solutions. It is tracked by a WilderHill Clean Energy Portfolio exchange traded fund that has over \$1 billion in assets since launching in 2005. <http://www.wildershares.com>

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