

Who's tracking the money?

BEFORE "CLEAN ENERGY" CLIMBED UP TO THE TOP OF THE POLITICAL AGENDA, A NUMBER OF PEOPLE ALREADY HAD THEIR EYE ON INVESTMENT IN THE ENVIRONMENTAL SECTOR.

BACK IN THE LATE 1990S, INDICES TO CHART THIS KIND OF INVESTMENT STARTED TO APPEAR AND HAVE NOW PROLIFERATED.

IN TERMS OF THE "STOCK UNIVERSE" TO BE TRACKED, SOME TRY TO MEASURE "PURE-PLAY", INVESTMENT WHOLLY IN ENVIRONMENTAL SHARES WHILE OTHERS FOLLOW COMPANIES WITH A STATED PORTION OF THEIR BUSINESS IN THE SECTOR.

EVERYTHING DEPENDS ON THE CRITERIA, INCLUDING MARKET CAPITALISATION, ON WHICH AN INDEX IS BASED. WE PRESENT TWO VIEWS IN THIS ARTICLE:

THE FIRST IN AN INTERVIEW WITH **DR ROBERT WILDER**, CREATOR OF THE **WILDERHILL INDEX**; AND THE SECOND FROM **DAVID HARRIS** OF THE **FTSE GROUP** IN LONDON.

The WilderHill Clean Energy Index

One day in 2004, Dr Robert Wilder, a specialist in policy for biodiversity conservation and ecosystems, gave up a distinguished career in academia. Moving from university teaching and research (his 1998 book, *Listening to the Sea*, linked marine biodiversity to smart cost-effective energy technologies that prevent pollution in the first place) he took up a new passion: creating stock indices to track solar, wind and other lower-carbon energy technology companies. His first effort, undertaken with a partner, was the **WilderHill Clean Energy Index (ECO)**.

"For several years I had been aware of a new generation coming of age, one that looked at investment differently," Wilder says. "Yes, people were seeking fund holdings that could better reflect their own thinking such as about clean energy, organic foods and healthier living. But being financially sophisticated, they also wanted lower expenses, transparency, less correlation to major indices and better tax efficiency. Most important, they understood that it wasn't about past negative screens that cut out undesirables like tobacco or arms; instead it was about positive screens that looked for new energy ideas such as in wind power, energy efficiency, renewables, LED lighting, smarter grids and the like."

But there were still questions: Did the financial community really have the appetite for a clean energy index? One that tracked businesses that stand to benefit substantially from society's transition toward cleaner energy and conservation? And would anyone buy an index with stocks and sector weightings based on the significance for clean energy, technological influence and relevance to preventing pollution in the first place?

The answer came 6 months later when a tracker fund (created in spring 2005 for the **ECO Index**), met with much success. **Powershares Capital Management** launched the WilderHill Clean Energy Portfolio as an exchange traded fund to track the ECO index live. As of November 2009, the fund (whose partners also include New Energy Finance) held about US\$700 million in net assets.

An Exchange Traded Fund (ETF) notably calculates intra-day, like the ECO Index. Generally speaking, ETFs offer the benefits of intra-day trading and transparency.

While there were other environmentally oriented funds at the time, growing concern for climate change has seen the inception of more "ethical investment", and similar indices were generated. Other notable funds also now in existence include **NASDAQ** – which now has its **Clean Edge US Index** and ETF; **Dow Jones** has also launched its **Sustainability Index**; and **Standard & Poor's** has this year launched green indexes of its own.

What do the indices tell us at present?

"The ECO index – of just US-listed stocks – tells a different story from the global NEX index, the latter having stocks listed around the world (and so also greater exposure to wind companies listed in Europe and Asia that are not available in the USA)," Wilder says.

"So though the solar sector is down around the world, NEX is up around 32% year to date, while ECO is up less at only about 26%."

He attributes this to excess capacity of late, and so pressure on margins in the solar sector – while there has been relatively greater opportunities in wind manufacturing in 2009, although that is based mainly outside of the USA.



Dr Robert Wilder (pictured), a specialist in policy for biodiversity conservation and ecosystems, gave up a distinguished career in academia to take up a new passion: creating stock indices to track solar, wind and other lower-carbon energy technology companies. His first effort, undertaken with a partner, was the WilderHill Clean Energy Index (ECO).

Speaking in November 2009, he also points to other indices: "Consider the Progressive Global Transport index (PTRP). It is up 47% year to date, while Progressive Energy index (PUW) is up 51%, outperforming the others and a bit of a standout this year in alternative and clean energy."

So why have PTRP and PUW done rather better? One possible reason is that there are fewer or no companies in solar here. "Both PTRP and PUW have almost no solar exposure but they are very strong on energy efficiency technology," Wilder says. "People are looking for energy solutions. "Some examples of performers would be **Tenneco** – with its catalytic converters for cars – and **USEC**, which provides the new "peaceful" uranium fuel for US domestic nuclear power, from old Soviet weapons. That company's slogan: 'Megatons to Megawatts'."

"You can view the repurposing of weaponised uranium from warheads to fuel – for civilian use – as recycling that also may perhaps help make the world just a bit safer," Wilder explains [EDITOR COMMENT: *though many would debate that, and there is still the waste issue of nuclear power to overcome. Many would also point to potential for accidents and terrorism when it comes to nuclear power*]. "Step back and in terms of investment trends not only have concerns over CO2 and climate risk, as well as peak oil grown lately, but so too has attention to the growing brittleness of our national energy portrait. This highlights, moreover, a case for energy efficiency, smarter grids, etc, since there is such vast room for improvement."

And he continues: "While energy security in the US and in other nations around the world has shifted the calculus somewhat on nuclear, that is still a thorny option in that it remains both hugely expensive upfront, and carries great risks and problems. It is instead the allure of renewables and of efficiency (in their scalability, and, ultimately, their resiliency, once storage improves), that will ultimately win out."

Facilitating investments by creating definitions and standards in environmental markets

By David Harris, Investment Unit, FTSE Group

The growth of environmental markets

WilderHill in a nutshell

WilderHill has four indices:

- WILDERHILL CLEAN ENERGY INDEX® (ECO);
- WILDERHILL NEW ENERGY GLOBAL INNOVATION INDEX (NEX);
- WILDERHILL PROGRESSIVE ENERGY INDEX® (WHPRO);
- WILDER NASDAQ OMX GLOBAL ENERGY EFFICIENT TRANSPORT INDEX (HAUL).

How is the ECO INDEX constructed?

ECO uses modified equal dollar weighting. No single stock may exceed 4% of total ECO weight at start of quarterly rebalancing.

For a stock to be included in the selection universe, the company must be identified as one that has significant exposure to clean energy, or be important to the development of clean energy, for example:

- Companies in ECO generally either work to further the cause of renewable energy (and do so in ecologically and economically sensible ways); or help prevent pollutants, such as CO₂, NO_x, SO_x or particulates; or de facto incorporate ideals of the precautionary principle or pollution prevention into their energy efforts;
- Companies in ECO generally will not have their majority interests in the highest-carbon fuels (oil or coal);
- Large companies with interests outside clean energy may be included if they are significant to this sector;

Market capitalisation for a majority of ECO Index stocks is typically US\$200 million and above. To account for notable but smaller companies sometimes significant to the clean energy field, a minority of Clean Energy Index stocks may have market capitalisations between US\$50 million and US\$200 million.

Stocks in the Clean Energy Index should generally:

- Have three-month average market capitalisation of at least US\$50 million;
- Have a three-month average closing price above US\$1.00;
- Be listed on a major US exchange such as the NYSE, AMEX or NASDAQ, and, if a foreign company, have their ADR listed on one of these exchanges;
- Reach minimum average daily liquidity requirements for sufficient trade volume.

Stock universe

There is a strong bias in favour of the purer-play companies. The emphasis is on indexing that captures and tracks the sector. "We do not take defensive positions within our index when the markets decline, appear over-valued, or if the Index is experiencing unusual volatility," Wilder says. "Rather than try to select ECO components based on financial or market data, we robustly look at clean energy broadly conceived and select stocks and sectors on technical and environmental criteria. We judge our performance by how well the Index tracks movements of the clean energy sector-down and upwards – and we seek to anticipate significant ongoing volatility in this sector."

Weightings

ECO components are evenly divided within a sector using modified equal weighting. Following quarterly rebalancings, stocks move for the next three months according to their respective prices, and then are automatically reset for the next quarter's start.

Environmental markets are a dynamic growth area due to the unprecedented environmental challenges facing human societies. The market downturn and equity crash of late 2008 have led to losses for most equity investors.

However, the long term growth prospects for the environmental markets are stronger than ever, with climate change rising rapidly up the agenda. Leadership in introducing appropriate policy responses is not only coming from European political leaders but now from across the globe, including the vVUS and China.

This has led to increasing interest from the investment community, including from some of the world's largest institutional investors such as **CALPers**, the **New York State Common Retirement Fund**, the **Swedish State Pension AP7**, and the UK's **University Superannuation Scheme (USS)**.

Development of a market for environmental technology investing

The growth of the environmental technology sector has led to an increasing number of specialist funds and indices. These vary in sophistication and take a variety of approaches in defining this area, covering different regions, and with different investability requirements and methodologies. The first environmental technology indices were produced by boutique fund managers, brokers, and research organisations, but more recently investment banks and index specialists have also developed indices.

A very early index in this area was the **ET50** index (ET for *Environmental Technology*) launched in 1999, by the leading specialist environmental fund manager **Impax Asset Management**. In 2007, FTSE Group took over the calculation and management of the ET50 Index, with Impax continuing to provide research for the index. FTSE introduced an independent committee to provide oversight on index management and development.

The Committee is chaired by Winston Hickox, who led the introduction of the Green-Wave investment strategy at CALPers, the Californian state pension fund. The investability of the index was also improved by adding liquidity screens and introducing free-float adjustments to constituent weights.

Defining the market

In order to invest in a market it is important to understand its investment characteristics but until recently there was no clear way to define environmental technology companies.

Through the stewardship of the independent FTSE Environmental Markets Committee, FTSE has developed a comprehensive and global classification system: the FTSE Environmental Markets Classification System (EMCS). This allows companies to be classified according to the environmental products and services they provide. There are six sectors and 24 sub sectors, and this classification system underpins the comprehensive range of indices. The sectors are:

- E1.0 Renewable and Alternative Energy;
- E2.0 Energy Efficiency;
- E3.0 Water Infrastructure & Technologies;
- E4.0 Pollution Control;
- E5.0 Waste Management and Technologies;
- E6.0 Environmental Support Services.

FTSE has expanded its Environmental Technology offering to include 18 indices within the Environmental Markets Index Series which vary by region, sector and level of business derived from these environmental products and services.

■ FTSE Environmental Technology 50 Index:

This global index consists of the largest global 50 companies that have at least 50% of their business derived from the EMCS Sectors.

■ FTSE Environmental Opportunities Index Series:

Forming part of the overall FTSE Environmental Markets Index Series, the FTSE Environmental Opportunities Index Series requires companies to have at least 20% of their business derived from environmental markets and technologies.

This lower threshold creates a much wider and larger investment universe, while still providing significant exposure to the market. There are almost 500 companies in the FTSE Environmental Opportunities All Share, with a combined market capitalisation of over US\$1.8 trillion.

This allows for the creation of sub-indices by size, region and sector:

Global

- FTSE Environmental Opportunities All-Share;
- FTSE EO 100.

Global Sectors

- FTSE EO Renewable & Alternative Energy (Benchmark and Tradable 50 Index);
- FTSE EO Energy Efficiency (Benchmark and Tradable 50 Index);
- FTSE EO Water Technology Index (Benchmark and Tradable 30 Index);
- FTSE EO Waste and Pollution Control Index (Benchmark and Tradable 30 Index).

Regional and Country

- FTSE Environmental Opportunities Europe Index;
- FTSE Environmental Opportunities USA Index;
- FTSE Environmental Opportunities Asia-Pacific Index;
- FTSE Environmental Opportunities Japan Index;
- FTSE Environmental Opportunities Asia-Pacific ex-Japan Index;
- FTSE Environmental Opportunities UK Index;
- FTSE Environmental Opportunities UK AIM Index.

We now have a number of different environmental technology funds and investment products available, including those based upon FTSE Environmental Market indices.

As the definitions, transparency, and approaches, of these investment products and indices vary considerably, scrutiny by prospective investors is important. There is a risk that this diversity of choice becomes bewildering, but it enables canny investors to target an index approach that most closely fits their investment requirements.

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