

# Q2 2013 Quarterly Report: WilderHill Clean Energy Index®, June 30, 2013

2<sup>nd</sup> Quarter 2013 opened with the Clean Energy Index® (ECO) at 44.83 and closed at 55.95, for a gain in Q2 of +24%. Since the start of 2013 when ECO Index® had opened at 42.33, the Index is up by some +32% Year to Date. And from its recent bottoms around 36 made in November 2012, the Index is since up by roughly +55% in less than a year.

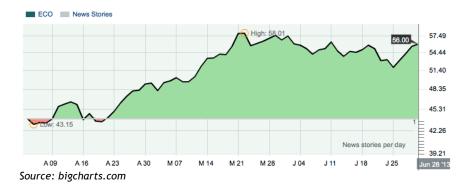
Note however this only follows an eyebrow-raising plunge over 5 long years going to 2012. To instead begin the count in 2007, as ECO was peaking near 300 - one would see a terrific 5-year fall to that just-mentioned 36 in 2012 as the clean energy theme and so ECO had earlier declined tremendously by some 6/7ths (and that could always resume).

Q1+Q2 is notable in part as this beaten-down theme was up 2 consecutive Quarters, most all of it positive in Q2. Before 2007, there'd been *years* of gains in ECO, but not since. That said it is impossible to say if this upturn may - or may *not*, go on ahead - especially for the clean energy story that will contain of course still-consolidating solar names.

Next, look at different Progressive Energy Index<sup>®</sup> (WHPRO) that excludes solar pure plays it is a 'brown' Index instead for de-carbonizing today's energy portrait and improving dominant energy & efficiency; here that theme was (much) less volatile. WHPRO started 2013 around 240 with an independent tracker (PUW) near 26; WHPRO ended Q2 about 251 (an independent tracker around 27). Thus for 1<sup>st</sup> half 2013, the WilderHill<sup>®</sup> Progressive Energy Index was up by a relatively much more modest amount, only about +4%.

At WilderHill New Energy Global Innovation Index (NEX) for clean energy worldwide mainly outside of the U.S., in first half of 2013 it was up about +24% YTD along with independent tracker (PBD). During much of Q2 global NEX was mainly just a bit behind ECO.

In sum Q1/Q2 saw an upswing in clean energy and so ECO. This was broad-based and to an extent led by solar including a PV firm focused on power purchase agreements, and a pure-play electric EV/carmaker that's higher-end but perhaps may offer more mainstream auto price points possibly ahead. While 2 constituents significantly gained near 11% of Index weight in a strong run up, gains for upstream solar helped it dominate the Index top 10 in Q2. At one point in Q2, ECO reached 58 before falling back, followed by a rebound near the end of Quarter. Below is a Chart for the ECO Index to late Q2:



Next here is ECO over a 6-month period to May 13, 2013 that thus captures a noteworthy low hit Nov. 16, 2012, when it had reached 36 - shown here up after to about 54. That is a gain of around +50% (compared to around +25% for the NASDAQ in that same period):



Source: bigcharts.com

For a similar period but expressed as percentages, below is the ECO tracker (PBW, in blue) vs the NASDAQ (in green) roughly here about the same 6 months to May 16, 2013:



Source: yahoo.com

Just to mention, \*solar's plummet significantly dragged down ECO Index last 5 years and \*solar is significant within ECO Index. Thus if/ when solar does greatly pop (as it did in Q2) it *could* quite pull up ECO Index - at the same time a solar-alone 'pop' may even exceed ECO gains during sharp rises in acute solar. (Yet solar can also 'spike down much lower' - as a glance at a Solar chart for the past 5 years amply shows).

As a brief example of that 'pop', an independent Index/tracker (not ours) for just solar on rising to just touch ECO from an arbitrary starting point in May 2012, fell back several times in a 12-months Chart to mid-May 2013. These coincidental moments are seen in this 1-year Chart below for a random May 13, 2012 to May 13, 2013. Independent ECO tracker (PBW) is seen in blue, and a solar-only tracker is seen here in green:



Source: yahoo.com

In the period above a solar theme does touch ECO 3 or 4 times... each time falling back. Just of minor note then after again touching ECO far right in Q2, would solar break above in Q2 given a very strong rally there in the Quarter? In the Chart above by coincidence, solar (green) as noted has risen strongly & touched ECO (blue) a few times - ending up about equally +11% in this arbitrary 12-month period.

As next seen in a strong solar 'solar pop' in Q2, yes, solar passes ECO below from an arbitrary mid-May starting point in 2012. This Chart is for May 13, 2012 to June 10, 2013, with solar ending up some +30% over this 13-month period:



Source: yahoo.com

So solar alone can really 'pop' (and drop). Moving on what helped to account for some of the upward volatility within ECO Index in Q2?

A glance at Top 10 constituents in ECO Index Tracker (PBW) late May reflected what names rose to top first 2/3rds of 2nd Quarter. In particular 2 weighty components at spots #1 and #2 stand out a bit for having gained sizably relative to the rest:

Fund Holdings subject to change

6.01%
5.02%
3.55%
3.51%
3.31%

Yingli Green Energy Holding Co Ltd ADR	3.19%
OM Group Inc	3.04%
MEMC Electronic Materials Inc	3.01%
Power-One Inc	2.98%
GT Advanced Technologies Inc	2.80%

As of 5/28/2013

Source: powershares.com

Near end of Quarter the situation is fairly stable (MEMC is now SunEdison) as clearly a solar story has been pretty dominant, while 2 largest names remain the same:

Fund Holdings subject to change

Tesla Motors Inc		5.83%
SolarCity Corp		4.04%
SunEdison Inc		3.50%
SunPower Corp		3.39%
Trina Solar Ltd AD	OR	3.38%

OM Group Inc	3.36%
First Solar Inc	3.30%
Yingli Green Energy Holding Co Ltd ADR	3.15%
Power-One Inc	3.10%
Polypore International Inc	2.68%

As of 6/17/2013

Source: powershares.com

The 2 top constituents were rather notable in Q2 for their gains; whether they will make further gains, or fall back strongly ahead, is of course unknowable. But as part of a basket and an/v Index, both their gains and losses can be tempered somewhat.

Especially in April/May they gained several-fold which helped lift all of clean energy, though the latter's gains were dwarfed by these outsize increases of these 2 in the period. One of these two constituents later gave back some of its gains in June:



Last as we typically do here next is a Chart for the ECO Index (via tracker PBW, black) that compares it to several other relevant themes.

Seen here is ECO (PBW, bold), a tracker for WHPRO Index (PUW in blue), a tracker for global NEX (PBD in red), an active fund in global alternative energy (green), and tracker for Natural Gas (orange). This Chart is Year to Date to late June 2013. ECO leads due to 'strength' latter Q2, over both NEX and an active fund; while WHPRO ends barely up - it ends barely positive this period along with Natural Gas which is last and nearly flat:



Stepping back last 5 years next show a rather different story. Here perhaps most dramatic has been the *huge* fall in Natural Gas (orange) - harder then even solar Indexes(!) or an active fund with exposure to solar, given the great fall in Natural Gas this period.

The fall of Natural Gas was near 90%. Of course as a practical matter it means Natural Gas-fired power plants have become thorny competitors to all renewables (and to dirty coal & to costly nuclear) by becoming so inexpensive a fuel. But that's a different story ... more relevant here is Progressive Index (WHPRO/PUW in blue) dedicated for better energy efficiency & less pollution from dominant sources - it generally excludes solar pure plays and did so much better as seen in the blue tracker (until start of 2013):



#### Conclusion:

2<sup>nd</sup> Quarter 2013 opened with the Clean Energy Index® (<u>ECO</u>) at 44.83 and closed at 55.95, for a gain in Q2 of +24.8%. Since the start of 2013 when ECO Index® had opened at 42.33, the Index is up by some +32% year to date. And from recent bottoms around 36 made in November 2012, the Index is since up by roughly +55% in less than a year.

Note however, this only follows an eyebrow-raising plunge over 5 long years to late 2012. To have started counting in 2007 as ECO peaked near 300 - one would have seen a terrific 5-year fall to just-mentioned 36 in 2012 as the clean energy theme and hence ECO had declined tremendously by some 6/7ths (and that could always resume).

There was 1 Addition to the Clean Energy Index (ECO) for the start of Q3: Silver Spring Networks (SSNI) which is in smart grid & networking, and there was 1 Deletion of PWER; plus constituent symbol changes from WFR to SUNE, and from PANL to OLED.

Over at the 'brown' and much different WilderHill Progressive Energy Index (WHPRO) for reducing pollution/CO2 & for improving energy efficiency in major energy today, there were 4 Additions of Hannon Armstrong Sustainable Infrastructure (HASI), MasTec (MTZ), Revolution Lighting (RVLT), and Wabco (WBC); there were 3 Deletions of ES, UEC & XIDE, plus a constituent symbol change within that Index from HEK to NES.

As always we welcome your thoughts and suggestions.

Sincerely,

Dr. Rob Wilder

rwilder@wildershares.com

Robert Wilde

Disclaimer: The following is a reminder from the friendly folks at Clean Energy Index® who worry about liability. Performance figures quoted represent past performance only, and are no guarantee of future results. Views expressed are those of just one of the managers of this WilderHill® Index. Views are not meant as investment advice and should not be considered as predictive in nature. Any descriptions of a holding, applies only as of June 30, 2013. Positions in the ECO Index® can and do change thereafter. Discussions of historical performance do not guarantee and are not indicative of future performance. The Index covers a highly volatile sector & is highly volatile too, always subject to well above-average changes in its valuation. WilderHill Clean Energy Index® (ECO) is published and owned by WilderShares, LLC. No financial instruments or products based on this Index are sponsored or sold by WilderShares LLC, and Wildershares LLC makes no representation regarding advisability of investing in such product(s). Marks to WilderHill®, to Clean Energy Index®, to ECO Index®, to Progressive Energy Index®, to Energy Efficient Transport Index® and HAUL Index® are all registered and each is exclusive property; all rights reserved.

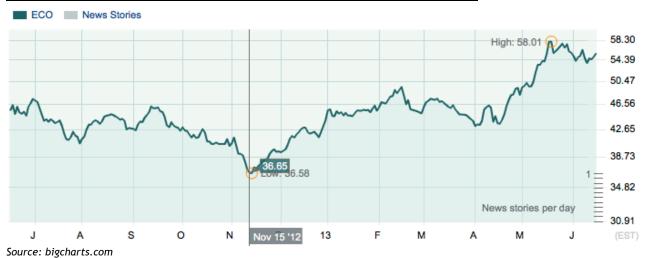
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Appendix I: ECO Index (via tracker PBW) Descending Weights & Components in late Q2 on 6/11/2013; or about 3 weeks before the rebalance to start Q3 2013:

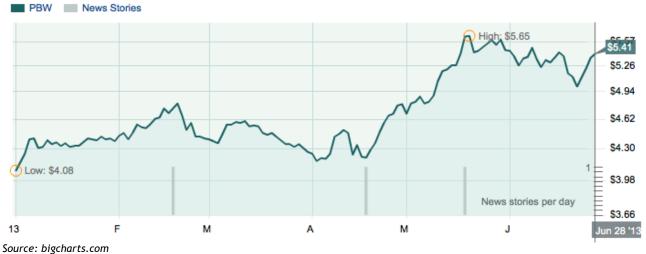
NAME	TICKER	<b>WEIGHT</b> %
Tesla Motors Inc	TSLA	5.5714
First Solar Inc	FSLR	4.0110
SolarCity Corp	SCTY	3.9951
SunPower Corp	SPWR	3.6966
SunEdison Inc	SUNE	3.4041
OM Group Inc	OMG	3.2565
Trina Solar Ltd ADR	TSL	3.2362
Power-One Inc	PWER	3.0274
Yingli Green Energy ADR	YGE	2.8998
GT Advanced Technologies Inc	GTAT	2.8108
Polypore International Inc	PPO	2.6201
PowerSecure International Inc	POWR	2.4172
Solazyme Inc	SZYM	2.4139
Ormat Technologies Inc	ORA	2.3810
Cree Inc	CREE	2.3409
Zoltek Cos Inc	ZOLT	2.2988
Ameresco Inc	AMRC	2.2755
Gentherm Inc	THRM	2.2528
Aixtron SE ADR	AIXG	2.2254
Molycorp Inc	MCP	2.1612
International Rectifier Corp	IRF	2.1501
Kaydon Corp	KDN	2.1424
Enphase Energy Inc	ENPH	2.1060
Calpine Corp	CPN	2.0626
CPFL Energia SA ADR	CPL	2.0575
IDACORP Inc	IDA	2.0478
Sociedad Quimica de Chile ADR	SQM	1.9937
Advanced Energy Industries Inc	AEIS	1.9650
Fuel Systems Solutions Inc	FSYS	1.9146
Universal Display Corp	PANL	1.8960
ITC Holdings Corp	ITC	1.8464
Air Products & Chemicals Inc	APD	1.8167
Quanta Services Inc	PWR	1.7015
Amyris Inc	AMRS	1.6937
Itron Inc	ITRI	1.6744
Cosan Ltd	CZZ	1.4991
KiOR Inc	KIOR	1.3784
EnerNOC Inc	ENOC	1.3419
Canadian Solar Inc	CSIQ	1.1872
JA Solar Holdings Co Ltd ADR	JASO	0.7432
Hanwha SolarOne Co Ltd ADR	HSOL	0.7062
FuelCell Energy Inc	FCEL	0.6110
Rubicon Technology Inc	RBCN	0.6015

China Ming Yang Wind Power ADR	MY	0.5922
ReneSola Ltd ADR	SOL	0.5391
Maxwell Technologies Inc	MXWL	0.5374
STR Holdings Inc	STRI	0.4982
American Superconductor Corp	AMSC	0.3925
Echelon Corp	ELON	0.3717
Rare Element Resources Ltd	REE	0.3319
Gevo Inc	GEVO	0.3043

# The ECO Index for the past 1 year mid-June 2012 to mid-June 2013:



# An ECO Index independent tracker (PBW) for the Year to Date to late-June 2013:



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#### **APPENDIX II:**

INDEX (ECO) SECTOR & STOCK WEIGHTS FOR START OF Q3 2013. 51 STOCKS. Each stock freely floats according to its share price after rebalance. \*Stocks below \$200 million in size at rebalance are \*banded with a 0.5% weight.

Renewable Energy Harvesting - 25% sector weight (9 stocks @2.55 each; +4 \*banded) Canadian Solar, CSIQ. Solar, vertically integrated solar PV manufacturer, China. \*China Ming Yang Wind, MY. Wind, large turbine manufacturer is a pure play. First Solar, FSLR. Thin film, CdTe solar panels low-cost alternate to polysilicon. \*Hanwha SolarOne, HSOL. Solar PV, integrated from poly through modules. JA Solar, JASO. Solar, China-based sells PV modules in Asia, Europe, U.S., etc. Kaydon, KDN. Wind, Manufactures friction & velocity controls in wind turbines. Ormat, ORA. Geothermal, working too in areas of recovered heat energy. \*ReneSola, SOL. Wafers, for silicon PV, mono and multicrystalline, China-based. \*STR Holdings, STRI. Encapsulants, broad technology for range of PV panels. SunPower, SPWR. Solar, efficient PV panels have all-rear-contact cells. Trina Solar, TSL. Solar, produces ingots, wafers, solar modules; China-based. Yingli Green Energy, YGE. Solar, is a vertically integrated PV manufacturer. Zoltek, ZOLT. Wind, makes carbon fiber for wind blades, product lightening.

Power Delivery & Conservation - 21% sector weight (9 stocks @2.27% each; +1 \*banded)

Aixtron Aktiengesellschaft, AIXG. Deposition tools, efficient (O)LEDs, displays.

Ameresco, AMRC. Energy saving performance contracts, also in renewables.

\*Echelon, ELON. Networking, better management of whole energy systems.

EnerNoc, ENOC. Demand response for better energy management, smart grid.

GT Advanced, GTAT. Solar, LEDS, production lines for poly & ingot; LED sapphire.

ITC Holdings, ITC. Power Delivery, grid transmission integrates wind/renewables.

Itron, ITRI. Monitoring, advanced energy metering, measurement, management.

PowerSecure, POWR. Smart grid, demand response, distributed generation; LEDs.

Quanta Services, PWR. Infrastructure, modernizing grid and power transmission.

SunEdison, SUNE. Producer of polysilicon used in crystalline c-Si solar PV cells.

Energy Conversion - 19% sector weight (8 stocks @2.25% each; +2 \*banded stocks) Advanced Energy, AEIS. Power conditioning: inverters, thin film deposition. \*American Superconductor, AMSC. Wind power converters; superconducting HTS. Cree, CREE. LEDs, manufacturer in power-saving lumens, efficient lighting. Enphase, ENPH. Microinverters, PV panel DC becomes grid compliant AC. FuelCell Energy, FCEL. Large fuel cells, stationary high-temp flex-fueled MCFCs. Gentherm, THRM. Thermoelectrics, waste heat to power, energy conversion. International Rectifier, IRF. Energy-saving, power conversion and conditioning. Molycorp, MCP. Rare Earths, strategic elements in NdFeB magnets, wind power. \*Rubicon, RBCN. Substrates, are used in the production of LEDs for lighting. Universal Display, OLED. Organic light emitting diodes, OLED panel displays.

<u>Cleaner Fuels</u> - 11% sector weight (5 stocks @2.10% each; +1 \*banded stock) Air Products & Chemicals, APD. Hydrogen, is a supplier of industrial gases. Amyris, AMRS. Biotech, speculative R&D in renewable fuels for transportation. Cosan, CZZ. Biofuels, Brazil-based uses sugarcane feedstock, ethanol exporter. \*Gevo, GEVO. Biotech, speculative R&D drop-in isobutanol, renewable biofuels. Kior, KIOR. Biofuels, catalytic process: cellulosic biomass/non-food feedstocks. Solazyme, SZYM. Biofuels, microalgae grown w/o sun, drop-in diesel substitute.

<u>Energy Storage</u> - 13% sector weight (5 stocks @2.40% each; +2 \*banded stocks) Fuel Systems Solutions, FSYS. Gaseous fuels; systems for cleaner-burning vehicles. \*Maxwell, MXWL. Ultracapacitors, alternative supplement for batteries, hybrids, UPS. OM Group, OMG. Cobalt and other precursors, producer for Li-Ion batteries, FCs. Polypore Intl., PPO. Separators, membranes used in Li-Ion, Pb-acid battery cells. \*Rare Element Resources, REE. Rare Earths, holdings for strategic lanthanides. Sociedad de Chile, SQM. Lithium, major Li supplier for batteries; also STEG storage. Tesla Motors, TSLA. Electric vehicles, a pure-play in EVs and ESS energy storage.

<u>Greener Utilities</u> - 11% sector weight (5 stocks @2.20% each)

<u>Calpine</u>, CPN. Geothermal, major North American producer, low-carbon assets.

<u>CPFL Energia</u> S.A, CPL. Hydroelectric, Brazil Utility has larger, smaller hydro.

<u>Idacorp</u>, IDA. Hydroelectric, Utility with sizeable hydroelectric, some small hydro.

<u>Silver Spring Networks</u>, SSNI. Smart grid; two-way communications aids Utilities.

<u>SolarCity</u>, SCTY. Power purchase agreements, solar rooftop energy systems.

## Chart for independent ECO tracker (PBW) past 5 years to end-of-May 2013:



Source: Bigcharts.com

As noted an independent ECO tracker (PBW, in bold) for past 5 years to end-of-May 2013. Despite this rough period ending down near -70%, it's still 'up' versus a sample active mutual fund for alternative energy (in orange), vs. a tracker for a Solar-only Index (in blue), and vs. a tracker for a Natural Gas Index (in brown). So these were very tough years for several themes.

Yet a green line at top ironically for 'brown' WilderHill Progressive Energy Index (WHPRO) 'puts them all to shame' for this period at least. It ends up near even in a tough time. Unlike a WHPRO tracker that had reached its bottom of \$13 as broad markets were at a nadir, the say, clean energy theme (ECO, and especially solar) moved differently from WHPRO. Since Highs around late 2007 as a rough high-water mark for (global) clean energy, latter themes (bold & blue) have moved well apart from WHPRO. A bit like solar-only then, ECO has been volatile, it has fallen far from highs - and was lately at new lows as recently as late 2012.

Appendix III:
WHPRO Index (via tracker PUW) Descending Component weights in late Q2 on 6/11/2013, or about 3 weeks before the rebalance to start Q3 2013.

rinzois, or about 5 weeks before		
NAME	TICKER	WEIGHT %
Chart Industries Inc	GTLS	2.568802
Hexcel Corp	HXL	2.551298
Veeco Instruments Inc	VECO	2.478051
Tenneco Inc	TEN	2.454763
Corning Inc	GLW	2.452514
Chesapeake Energy Corp	CHK	2.422136
EnerSys Inc	ENS	2.411746
GrafTech International Ltd	GTI	2.398786
Methanex Corp	MEOH	2.387739
Johnson Controls Inc	JCI	2.320177
Andersons Inc/The	ANDE	2.295729
Owens Corning	OC	2.29123
Southwestern Energy Co	SWN	2.28903
Cameco Corp	CCJ	2.258334
Foster Wheeler AG	FWLT	2.244852
Acuity Brands Inc	AYI	2.236413
Westport Innovations Inc	WPRT	2.235145
Chicago Bridge & Iron Co NV	CBI	2.231806
Eaton Corp PLC	ETN	2.228448
AO Smith Corp	AOS	2.214603
Tata Motors Ltd ADR	TTM	2.18692
Woodward Inc	WWD	2.181908
Rockwood Holdings Inc	ROC	2.177565
Energizer Holdings Inc	ENR	2.158465
Rentech Inc	RTK	2.14309
Emerson Electric Co	EMR	2.128812
Range Resources Corp	RRC	2.123358
Clean Energy Fuels Corp	CLNE	2.113845
Covanta Holding Corp	CVA	2.103872
Golar LNG Ltd	GLNG	2.066746
Sasol Ltd ADR	SSL	2.051103
Siemens AG ADR	SI	2.049374
Altra Holdings Inc	AIMC	2.046581
LSB Industries Inc	LXU	2.022542
Koninklijke Philips NV	PHG	1.968487
General Cable Corp	BGC	1.943021
Denison Mines Corp	DNN	1.939934
Cia Energetica de Minas ADR	CIG	1.924795
Apogee Enterprises Inc	APOG	1.877267
McDermott International Inc	MDR	1.849523
Nuverra Environmental Solutions	NES	1.786821
Regal-Beloit Corp	RBC	1.72175
ESCO Technologies Inc	ESE	1.673236
L3CO reciliologies Inc	LOE	1.0/3230

Enersis SA ADR	ENI	1.633886
Centrais Eletricas Brasileiras ADR	EBR	1.506451
Renewable Energy Group Inc	REGI	0.928585
ADA-ES Inc	ADES	0.732128
Luxfer Holdings PLC ADR	LXFR	0.540603
PMFG Inc	PMFG	0.495175
Global Power Equipment Group	GLPW	0.483024
Uranium Energy Corp	UEC	0.469525

### Chart for WHPRO Index for the past 1-year to mid-June 2013:



Source: bigcharts.com

#### Chart for a WHPRO Independent tracker (PUW) for the past 2-years to late-June 2013:



Source: bigcharts.com

Looking at a past 2 years for Progressive Energy Index above, it is suggested a high seen near 270 (or \$29 on tracker) may perhaps be a bit of a resistance level, 'difficult' to break through. Again nearing this point June 2013, it may be interesting to see whether this Index (WHPRO) can - or cannot - break through in Quarters ahead.

#### Appendix IV:

WilderHill Progressive Energy Index (WHPRO) at Rebalance to start Q3 2013.

# <u>Sectors & Stock Weightings: WilderHill Progressive Energy Index (WHPRO)</u> for start of Q3 2013. 54 stocks.

Each stock freely moves according to its share price after the rebalance; \*Banded stocks are those under \$400 million in size and weighted at 0.5%.

Alternative Fuel - 18% Sector Weight (8 stocks @2.18% each; + 1 banded stock)

Andersons, ANDE. Ethanol producer, corn-based; rail group is in fuel transport.

Cameco, CCJ. Uranium fuel, one of largest producers; also does fuel processing.

Chesapeake Energy, CHK. Natural gas, one of larger U.S. independent producers.

Denison Mines, DNN. Uranium fuel, also non-U.S; decommissions, recycling wastes.

Methanex, MEOH. Methanol, liquid fuel can be derived from fossil fuels or organics.

Range Resources, RRC. Natural gas, produces in Appalachian & Gulf Coast regions.

\*Ren. Energy Grp., REGI. Biodiesel, converts natural fats, oils, greases into biofuels.

Rentech, RTK. Syngas & fuels from biomass and waste materials; Gas to Liquids.

Southwestern Energy, SWN. Natural gas, U.S. producer, also midstream services.

New Energy Activity - 19% Sector weight (9 stocks @2.00% each; +2 \*banded)

Eaton, ETN. Hybrids, better electric and fluid power in truck & auto applications.

Foster Wheeler, FWLT. Infrastructure, engineering services in WtE, LNG, CCS.

\*Global Power Equipment, GLPW. Designs, engineering for gas, hydro, nuclear.

GrafTech, GTI. Graphite, advanced electrodes for power generation, fuel cells.

\*Hannon Armstrong, HASI. Capital: Infrastructure & finance for energy efficiency.

Hexcel, HXL. Lighter composites, advanced structural reinforcement materials.

Johnson Controls, JCI. Building controls, also advanced hybrid vehicle systems.

Owens Corning, OC. Materials lightening, building insulation composite materials.

Rockwood Holdings, ROC. Lithium battery recycling, lithium & cobalt supply.

Siemens AG, SI. Conglomerate, is diversified across energy innovation globally.

Veeco Instruments, VECO. Design, manufactures equipment for LED production.

Better Efficiency - 22% Sector Weight (11 stocks @1.95% each; +1 \*banded stock)
Acuity Brands, AYI. LED lights, OLEDs, and controls for indoor & outdoor lighting.
A.O. Smith, AOS. Energy efficiency innovations for water heating & monitoring.
Apogee, APOG. Advanced glass, for better efficiency, green building designs.
Emerson Electric, EMR. Broad work in energy efficiency, storage, lately biofuels.
Esco Technologies, ESE. Power grid, advances 2-way metering & communications.
General Cable, BGC. Power grid, high voltage transmission cable and wire products
Koninklijke Philips Electronics NV, PHG. Efficient LEDs, advanced industrial lighting.
LSB Industries, LXU. Greater energy efficiency in building end-use, heating, cooling.
Regal Beloit, RBC. Energy efficient motors, in commercial, industrial, homes etc.
\*Revolution Lighting, RVLT. LED lights, multi-branded array and sign lighting.
Wabco, WBC. Mechatronics: better commercial vehicle energy efficiency globally.
Woodward, WWD. Energy controllers, optimization, industrial turbines in generation.

<u>Conversion & Storage - 20% Sector weight (10 stocks @2.00% each)</u>

<u>Altra Holdings</u>, AIMC. Mechanical power transmission, electromechanical conversion.

<u>Chart Industries</u>, GTLS. Natural gas, LNG; liquefied gas storage/transport, efficiency.

Chicago Bridge & Iron, CBI. Nat. gas; also better containment for next-gen nuclear. Clean Energy Fuels, CLNE. Natural gas fleet vehicles, integration and distribution. Covanta Holding, CVA. Incineration, converts waste to energy (WtE); conglomerate. Energizer, ENR. Lithium, NiMH, various new battery and charger technologies. EnerSys, ENS. Battery maker, for telecommunications, utilities, motive power. Golar LNG, GLNG. LNG, major independent carrier, gas transport, regasification. MasTec, MTZ. Engineering & construction: distribution of electricity, natural gas. Westport Innovations, WPRT. Enables vehicles' use of natural gas, gaseous fuels.

\*\*Emission Reduction - 15% Sector Weight (7 stocks @2.00% each +2 \*banded stocks)

\*\*ADA-ES, ADES. Coal emissions reduction, mercury, NOX, CO2, noxious pollutants.

\*\*Corning, GLW. Diverse activity includes emissions reduction, filters, and catalysts.

\*\*Luxfer Holdings PLC, LXFR. Advanced materials: reduced emissions, gaseous storage.

\*\*McDermott, MDR. Infrastructure: reduces coal emissions, constructs WtE facilities.

\*\*Nuverra, NES. Natural gas: recycling water & spill prevention; used oil recycling.

\*\*Peerless, PMFG. Pollution reduction: effluent separation & filtration systems.

\*\*Sasol Ltd, SSL. Syngas to synthetic fuel; potential CO2 capture/sequestration (CCS).

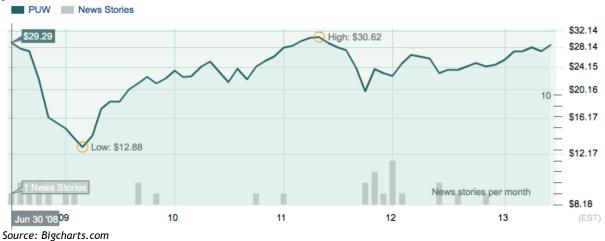
\*\*Tata Motors, TTM. Smaller & 'nano' vehicles, India-based with worldwide sales.

\*\*Tenneco, TEN. Automotive end-of-pipe emissions controls, catalytic converters.

#### Utility - 6% Sector weight (3 stocks @2.00% each)

Companhia Energetica de Minas Cemig, CIG. Brazilian Utility, large hydroelectric. Centrais Electricas Brasileiras, EBR. Brazilian Utility, large hydro, also nuclear. Enersis, S.A., ENI. Chile, Argentina, Peru. Utility, lower-CO2 large hydroelectric.

## Chart for an independent WHPRO tracker (PUW) for past 5 years to end-of-May 2013:



Here's a WHPRO tracker (PUW): 5 years from end-of June 2008 @ near \$30 - to end-of-May 2013; we can see a (so far) closing Low of \$12.88 February 2009 as broad markets were at a nadir too. More recently there was a peak again near \$30 in April 2011 (some ~two years after 2009 lows). Quite unlike ECO Index® then, we see in this 5 years WHPRO was less volatile, has not dropped below / near its March 2009 values since that low, and has returned nearer its highs so far.

# Appendix V: WilderHill New Energy Global Innovation Index (NEX) in late Q2 2013 via tracker (PBD) on 6/11/2013, or about 3 weeks before Rebalance to start Q3:

NAME	TICKER	WEIGHT
Tesla Motors Inc	TSLA	4.04670
SolarCity Corp	SCTY	2.84246
First Solar Inc	FSLR	2.77448
SunEdison Inc	SUNE	2.68844
	SPWR	2.55440
SunPower Corp		
Vestas Wind Systems A/S	VWS	2.02757
Aixtron SE	AIXA	1.83444
Seoul Semiconductor Co Ltd	46890	1.83320
Ormat Technologies Inc	ORA	1.79901
Rockwool International A/S	ROCKB	1.73104
Veeco Instruments Inc	VECO	1.70303
Hanergy Solar Group Ltd	566	1.70242
Cree Inc	CREE	1.70224
Enel Green Power SpA	EGPW	1.69125
China Suntien Green Energy Corp Ltd	956	1.67503
Xinjiang Goldwind Science & Technology	2208	1.66661
SMA Solar Technology AG	S92	1.65424
Epistar Corp	2448	1.62011
Johnson Controls Inc	JCI	1.59837
Huaneng Renewables Corp Ltd	958	1.59669
Acuity Brands Inc	AYI	1.57547
Meidensha Corp	6508	1.56918
AO Smith Corp	AOS	1.56309
International Rectifier Corp	IRF	1.56114
Brookfield Renewable Energy Partners	BEP-U	1.55003
Kingspan Group PLC	KSP	1.54875
GCL-Poly Energy Holdings Ltd	3800	1.53942
China Datang Corp Renewable Power	1798	1.53366
LSB Industries Inc	LXU	1.49389
Covanta Holding Corp	CVA	1.48173
Verbund AG	VER	1.45977
Novozymes A/S	NZYMB	1.44011
China Longyuan Power Group Corp	916	1.43649
Power Integrations Inc	POWI	1.43198
China Everbright International Ltd	257	1.40209
Energy Development Corp	EDC	1.39452
Itron Inc	ITRI	1.38083
Abengoa SA	ABG	1.38040
Universal Display Corp	PANL	1.37820
Nibe Industrier AB	NIBEB	1.37705
Fortum OYJ	FUM1V	1.37100
Contact Energy Ltd	CEN	1.36970
Cosan SA Industria e Comercio	CSAN3	1.35457
Sao Martinho SA	SMTO3	1.32841
Acciona SA	ANA	1.26598
EDP Renovaveis SA	EDPR	1.18923
Byd Co Ltd	1211	0.80545
Dya Co Lta	1411	0.00573

Renewable Energy Group Inc	REGI	0.78824
JA Solar Holdings Co Ltd ADR	JASO	0.75537
Renewable Energy Corp ASA	REC	0.71322
Polypore International Inc	PPO	0.66203
Trina Solar Ltd ADR	TSL	0.63883
Rubicon Technology Inc	RBCN	0.63717
GT Advanced Technologies Inc	GTAT	0.63472
Power-One Inc	PWER	0.62756
GS Yuasa Corp	6674	0.62553
Solazyme Inc	SZYM	0.61136
Yingli Green Energy Holding Co Ltd ADR	YGE	0.57299
Takuma Co Ltd	6013	0.57009
Motech Industries Inc	6244	0.54831
Gamesa Corp Tecnologica SA	GAM	0.54025
Ameresco Inc	AMRC	0.53571
Meyer Burger Technology AG	MBTN	0.50783
Molycorp Inc	MCP	0.46950
Aerovironment Inc	AVAV	0.45530
Nordex SE	NDX1	0.45498
ALBIOMA	ABIO	0.44481
Amyris Inc	AMRS	
,		0.42858
Dialight PLC	DIA	0.42851
Innergex Renewable Energy Inc	INE	0.41606
Sino-American Silicon Products Inc	5483	0.41539
Zoltek Cos Inc	ZOLT	0.41005
Wasion Group Holdings Ltd	3393	0.40875
Neo Solar Power Corp	3576	0.40646
China Singyes Solar Technologies	750	0.39009
SPCG PCL	SPCG	0.38158
China High Speed Transmission Equip.	658	0.38047
Neo-Neon Holdings Ltd	1868	0.37643
Akenerji Elektrik Uretim AS	AKENR	0.37279
American Superconductor Corp	AMSC	0.36158
Taewoong Co Ltd	44490	0.36003
Ayen Enerji AS	AYEN	0.35259
KiOR Inc	KIOR	0.34880
Lynas Corp Ltd	LYC	0.34612
Falck Renewables SpA	FKR	0.34502
Solarworld AG	SWV	0.32947
EnerNOC Inc	ENOC	0.31629
Nexolon Co Ltd	110570	0.31464
Unison Co Ltd/South Korea	18000	0.26958
Maxwell Technologies Inc	MXWL	0.24524
Japan Wind Development Co Ltd	2766	0.23289
FuelCell Energy Inc	FCEL	0.19360
Saft Groupe SA	SAFT	0.17581
Trony Solar Holdings Co Ltd	2468	0.15673
Fuel Systems Solutions Inc	FSYS	0.11882
i dei Systems Solutions Inc	1313	0.11002

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### For current values of the NEX, see

http://www.nex-index.com/Constituents\_And\_Weightings.php

or see also for more NEX data: http://www.nex-index.com/Constituents\_And\_Weightings.php

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Here are links to quotes to NEX Index available on the web:

NEX Quotes & Data	Ticker	Bigcharts	Bloomberg	Marketwatch	Yahoo	
USD Price Index	NEX	51599W10	NEX:IND	NEX	^NEX	
EUR Price Index	NEXEU	26499Z42	NEXEU:IND	<u>NEXEU</u>	^NEXEU	
GBP Price Index	EXBP	26499Z40	NEXBP:IND	NEXBP	^NEXBP	
JPY Price Index	NEXJY	26499Z38	NEXJY:IND	NEXJY	^NEXJY	
USD Total Return Index	NEXUST	26499Z43	NEXUST:IND	NEXUST	^NEXUST	
EUR Total Return Index	NEXEUT	26499Z41	NEXEUT:IND	NEXEUT	^NEXEUT	
GBP Total Return Index	NEXBPT	26499Z39	NEXBPT:IND	<u>NEXBPT</u>	^NEXBPT	
JPY Total Return Index	NEXJYT	26499Z37	NEXJYT:IND	<u>NEXJYT</u>	^NEXJYT	

Below is the NEX Index vs. AMEX Oil vs. Nasdaq vs. S&P500 vs. MSCI World for the past 10 years to early 2013. Note Global NEX which had been well up, indeed top in late 2007 at 450, instead finishes this period to 2013 far down at bottom and near 100 of a decade ago:



AMEX Oil, Nasdaq, S&P 500 rebased 30 Dec 2002 = 100 Source: Bloomberg New Energy Finance

<sup>\*(</sup>The global NEX Index only is a unique co-equal partnership as between Bloomberg New Energy Finance based in London; Josh Landess, CEO of First Energy Research based in U.S., and Dr. Rob Wilder, CEO of WilderHill Indexes based in the U.S.; the NEX is addressed in prior reports).