



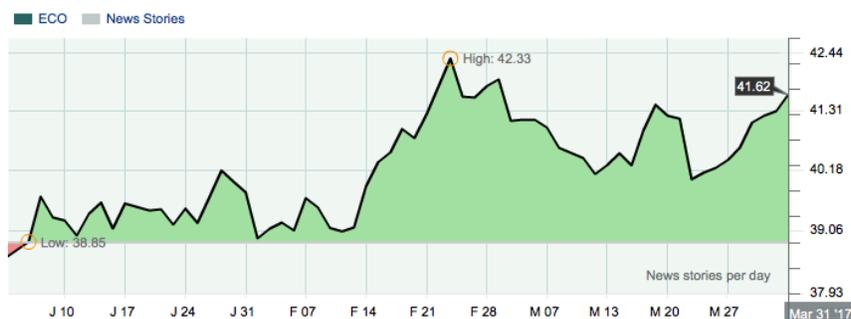
Q1 2017 Quarterly Report: WilderHill Clean Energy Index[®], March 31, 2017

For 1st Quarter of 2017 the Clean Energy Index[®] (ECO) began near 38 and ended near 41 for a gain of about +7.9%. Or look back over a little more than 3 years since beginning of 2014: here the clean energy theme & so ECO Index[®] at first gained in 2014 yet then fell and didn't re-test those highs all that year with the declines only broken by an upturn late in 2015; clean energy then fell in Q1/Q2 2016, went sideways Q3/Q4 and has risen (so far) in 2017 - for a clean energy theme that can drop hard at times while carrying much risk. Yet it must also be said the fossil fuels have fallen far harder last 5 years than ECO: oil, coal & natural gas all have dropped *much* farther than clean energy in a past five year period.

Quite different is Progressive Energy Index[®] (WHPRO) that generally excludes solar, wind & the green renewables: WHPRO is a much different theme instead for reducing CO2 & pollution from - and for obtaining greater efficiencies in major energy today. In the last Quarterly Report it was noted that WHPRO gained strongly in 2016 (touching up near +40%) in a year when ECO declined; this past 1st Quarter 2017 however, ECO did 'better'. A result once again is WHPRO can move unlike the greener ECO theme (which 'can and does at times drop like a rock'); meanwhile WHPRO is different too from fossil fuel indexes.

For the WilderHill[®] New Energy Global Innovation Index (NEX) theme capturing new energy *worldwide* mostly outside the U.S., it slightly 'underperformed' ECO over Q1, while doing better than WHPRO in Q1. And yet for say last 5 years NEX has done 'best' of the three WilderHill (WH) Indexes; it's up near +30%, Progressive near nil, ECO down near -25% (that performance near-identical to an independent solar-only Index indicating solar has been a 'drag' over the period). Traditional fossil fuels though are down and much more so last 5 years - as seen in charts below declining by some -50% to -70% in that period.

To sum Q1, ECO's green theme had a 'strong' Quarter touching at one point over +10% up; global NEX saw a strong rise too; meanwhile Progressive's long rise all last year including after election was not repeated in Q1 2017 as it was flat to just up. Finally here is the ECO Chart for Q1 with much green - perhaps a surprising picture for clean energy given a recent Presidential election & inauguration, but clean energy may have some perceived inertia given its declining costs - plus States' policies. Doubtless however, gains easily could go into reverse if much broader market bullishness becomes instead pessimism:



Source: bigcharts.com

What has the November election meant? Consider that the WH themes - plus fossil fuels - are generally up ... ECO clean energy counter-intuitively perhaps, has touched over +10% from November 9th election to mid-March 2017. Meanwhile global NEX & Progressive WHPRO both were up some +8% too (despite WHPRO being largely flat in Q1 2017) - while mainly the fossil fuels have gained as well (except for natural gas) since the election and new policies. But, those gains also have come amidst a very strong, broad & deep market rally upwards (perhaps on hopes of tax cuts) - and as emphasized that may easily reverse here.

Or for a much longer picture stretching back to include an energy crash of 2008-2012, step-back to see next roughly ~10 years from about 2006 to start of 2017 in a chart below. Included are fossil fuels and dramatic is Natural Gas (green) sharply down some ~90%! Thus we see starting from very-lowest at bottom a **Natural Gas tracker, green**; just above it is a tracker for **Solar, blue** also far down. Next 3rd up from bottom is a tracker for **Oil, red**, once up, but it fell hard. Thus natural gas, solar, & oil are all down hard last ~10 years.

Above those with some clumping are next 3 differing themes including an **active fund, burnt red** for alternative energy (plus it shows that it's pretty hard for an active-fund to regularly beat an Index). Near-tied here is **ECO Index via independent tracker, bold**; it with the 2 others are well down yet still 'doing better' (down less) than **Natural Gas, Oil, and Solar**. Noticeable next is Coal that had previously trailed; its tracker also in **blue**, rose strongly over 2016 to above ECO. (And KOL did well in Q1 2017 with new policies). Among these themes then coal is now 'doing a bit better' last 5 years - especially since last year).

Next up & above those 6 after a gap is the global **NEX via tracker, brown**. Well above it and farthest at 'top' is **WilderHill Progressive (WHPRO via PUW, orange)** for reducing CO2 & improving efficiency in major energy. It ends near nil, only theme near 'up' when starting so early - note however most trackers do not begin so far back as ~10 years ago:



Source: bigcharts.com

Still, all these varied energy themes above (except Progressive) are *far down* this period of an energy crash. Or for more granularity and again more recently, consider in a chart next these same independent trackers in months since 2016 Elections, or starting November 9th - going to March 17th so to late Q1 of 2017: this shows another interesting picture.

Almost these trackers are modestly (Natural gas) to firmly positive here, indicating the election has perhaps been bullish (so far)... this may be a bit surprising given clean energy perhaps might not have been expected to have held its own post-election:

From Post-Election on November 9, 2016 to March 17th, 2017: :



Source: bigcharts.com

The above doesn't include brief downwards volatility latter-March-of-Q1, but is somewhat informative. Here for more conventional timeframe is 2017 Year To Date, to mid-March:

2017 YTD up to March 17th, 2017: :



Source: bigcharts.com

One sees above greatest gains in themes of Coal (independent tracker KOL up over +10%) and in Clean Energy up over +8% (ECO), and Global Clean Energy mainly outside the U.S. in New Energy Global (NEX) up near +8%, plus Solar up near +8% (KWT) and an Active Fund for Alternative Energy up near +8% (again, showing that it's always hard to beat an Index). Below those near nil is: Progressive Energy (WHPRO) after a strong rise late 2016; finally two themes noticeably down Year to Date 2017 are: Oil down here some -10% (USO) - and down most near -15% is Natural Gas (UNG, after a big rise November & December in the Charts above (some Natural Gas is in WHPRO theme so that maybe partly accounts for some of the latter's sharp gains in Q4, and then for being near nil YTD in Q1)).

Nonetheless most all these themes are generally up from Election 2016 to mid-March 2017. Finally an interesting question raised, is why both green ECO and Global NEX are *up* and so very strongly so YTD and since the Election - when a new Administration may be somewhat unsympathetic to clean energy low-carbon paths ... Why the lower-carbon ECO & NEX themes have risen since November 8th though the election perhaps highlighted more skepticism or rejection of climate-risk and the value of new energy innovation....

It is impossible to say why exactly.

But a rather fascinating fact is during George W. Bush (43) years the independent tracker for ECO Index was already live and its theme then did 'well'. Rising from about \$15/share it moved up during Bush years to a high around \$27/share at the end of 2007. This despite a perception at that time that President George W. Bush was perhaps regarded in those years as friendly to oil, coal & natural gas fossil fuels - and he clearly didn't publically embrace zero-carbon clean energy in a way that say, President Obama, would later do.

And yet ... during Bush years to repeat ECO's theme again did 'well' - up to a huge and very broad market crash early 2008, when it *plummeted*. (But that latter crash enveloped all themes, even the whole world). For some years under President Bush as the ECO tracker rose, here's a Chart from near its inception March 2005 to late in President Bush's 2nd term through December 2008 (so including the global financial crisis in the latter year):



Source: bigcharts.com

Remove 2008 (a Global Crisis) above - and clean energy defined by ECO did 'well' under Mr. Bush - yet noticeably it after did 'poorly' under President Obama from 2009, below. (That may have had something to do with China, margins compressions as clean energy ramped greatly, and market expectations as huge drops in costs per watt punished many firms).



Counter-intuitive maybe but curiously so far this clean energy theme has risen since the election; of course it is early and this volatile theme may fall and very hard, ahead.

Conclusion:

For 1st Quarter of 2017 the Clean Energy Index[®] (ECO) began near 38 and ended near 41 for a gain of about +7.9%. Or look back over a little more than 3 years since beginning of 2014: here the clean energy theme & so ECO Index[®] at first gained in 2014 then fell yet didn't re-test those highs all that year with those declines only broken by an upturn late in 2015; clean energy then fell in Q1/Q2 2016, went sideways Q3/Q4 and has risen so far in 2017 - for a clean energy theme that can drop hard at times while carrying much risk. Yet it must also be said fossil fuels have fallen far harder say last 5 years than ECO: oil, coal & natural gas all have dropped *much* farther than clean energy in a past five year period.

By contrast Progressive Energy WHPRO was only slightly up over the 1st Quarter of 2017; the global new energy NEX was well up although less so than ECO. Post-election has seen some sharp gains in these 3 themes, but then bullishness was evident throughout markets.

Lastly there were no constituents deleted from ECO to start Q2 2017; three additions to ECO Index for Q2 2017 were AQMS to the Energy Storage sector, MYRG to the Power Delivery & Conservation sector, and TPIC to the Renewable Energy Harvesting Sector. At a separate WilderHill Progressive Energy Index (WHPRO) to start Q2 there were no deletions, while two additions were AGR to the Utility Sector, and REX to the Alternative Fuel sector.

As always we welcome your thoughts and suggestions.

Sincerely,



Dr. Rob Wilder
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Appendix I:

ECO Index (via independent tracker PBW) Descending Weights & Components late-Q1 on 3/16/2017, or about ~2 weeks before rebalance to start Q2 2017. 37 stocks:

<u>Name</u>	<u>Symbol</u>	<u>Weight</u>
Universal Display Corp	OLED	4.464
Tesla Inc	TSLA	3.712
TerraForm Global Inc	GLBL	3.712
Sociedad Quimica Minera Chile ADR	SQM	3.646
Canadian Solar Inc	CSIQ	3.493
Ormat Technologies Inc	ORA	3.455
Ballard Power Systems Inc	BLDP	3.429
Advanced Energy Industries Inc	AEIS	3.404
Daqo New Energy Corp ADR	DQ	3.372
Quanta Services Inc	PWR	3.264
Atlantica Yield plc	ABY	3.249
SunPower Corp	SPWR	3.219
Hexcel Corp	HXL	3.204
JA Solar Holdings Co Ltd ADR	JASO	3.167
First Solar Inc	FSLR	3.133
SolarEdge Technologies Inc	SEDG	3.108
Renewable Energy Group Inc	REGI	3.091
Pattern Energy Group Inc	PEGI	3.079
Gentherm Inc	THRM	2.985
Ameresco Inc	AMRC	2.962
Hanwha Q CELLS Co Ltd ADR	HQCL	2.914
Air Products & Chemicals Inc	APD	2.912
Itron Inc	ITRI	2.857
TerraForm Power Inc	TERP	2.839
Sunrun Inc	RUN	2.819
LSI Industries Inc	LYTS	2.802
Veeco Instruments Inc	VECO	2.784
Cree Inc	CREE	2.736
General Cable Corp	BGC	2.647
Silver Spring Networks Inc	SSNI	2.446
Plug Power Inc	PLUG	2.266
Hydrogenics Corp	HYGS	0.779
Maxwell Technologies Inc	MXWL	0.493
EnerNOC Inc	ENOC	0.421
Sky Solar Holdings Ltd ADR	SKYS	0.407
American Superconductor Corp	AMSC	0.4
FuelCell Energy Inc	FCEL	0.333

Appendix II, ECO Index for Start of the New Quarter:

INDEX (ECO) SECTOR & STOCK WEIGHTS FOR START OF Q2 2017. 40 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 - 27% sector weight (9 stocks @3.00% each)

Canadian Solar, CSIQ. Solar, vertically integrated solar manufacturer, China.

Daqo New Energy, DQ. Solar, polysilicon/wafer manufacturer; China-based.

First Solar, FSLR. Thin film solar, CdTe a low-cost alternate to polysilicon.

Hanwha Q Cells, HQCL. Solar, integrated from poly through modules.

Hexcel, HXL. Light composites, in wind blades & spars, aerospace, vehicles.

JA Solar, JASO. Solar, China-based sells PV modules in Asia, Europe, U.S.

Ormat, ORA. Geothermal, works too in areas of recovered heat energy.

SunPower, SPWR. Solar, efficient PV panels have all-rear-contact cells.

TPI Composites, TPIC. Wind Blades; also light-weighting for transportation.

Power Delivery & Conservation - 21% sector weight (7 stocks @2.85%; +2 *banded)

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

**American Superconductor*, AMSC. Wind, grid conditioning; superconductors.

**EnerNoc*, ENOC. Demand response; better energy management, smart grid.

General Cable, BGC. Power grid innovation, includes high-voltage offshore wind.

Itron, ITRI. Meters, utility energy monitoring, measurement & management.

MYR Group, MYRG. Transmission and Distribution, includes solar & wind farms.

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

Silver Spring Networks, SSNI. Smart grid, two-way communications aids Utilities.

Universal Display, OLED. Organic light emitting diodes, efficient displays.

Energy Conversion - 22% sector weight (8 stocks @2.68% each; +1 *banded)

Advanced Energy, AEIS. Power conditioning: inverters, thin film deposition.

Ballard Power, BLDP. Mid-size fuel cells; R&D, PEM FCs as in transportation.

Cree, CREE. LEDs, manufacturer in power-saving lumens, efficient lighting.

**FuelCell Energy*, FCEL. Large fuel cells, high-operating temps, multiple-fuels.

Gentherm, THRM. Thermoelectrics, waste heat to energy, power harvesting.

LSI Industries, LYTS. Lighting, LEDs, is vertically integrated U.S. manufacturer.

Plug Power, PLUG. Small fuel cells, for e.g. forklifts; drop in replacements.

SolarEdge Technologies, SEDG. Inverters: makes solar optimizers, inverters.

Veeco, VECO. Thin film equipment, for LEDs, energy efficient electronics.

Greener Utilities - 15% sector weight (5 stocks @2.90% each; +1 *banded stock)

Atlantica Yield, ABY. Yieldco, Contracted renewables assets, also transmission.

Pattern Energy, PEGI. Wind farms, solar may be added too for GW sized PPAs.

**Sky Solar*, SKYS. Solar farms, creating & operating utility-scale projects.

Sunrun, RUN. Residential solar systems, lease, PPA or purchase rooftop PV.

TerraForm Global, GLBL. Owns operates renewable assets in emerging nations.

TerraForm Power, TERP. Owns operates solar/wind, developed nations, yieldco.

Energy Storage - 9% sector weight (3 stocks @2.83% each; +1 *banded stock)

Aqua Metals, AQMS. Recycles lead acid batteries eliminating toxic wastes.

**Maxwell*, MXWL. Ultracapacitors, an alternative assisting batteries in hybrids.

Chemical & Mining Co. of Chile, SQM. Lithium, energy storage, large producer.
 Tesla Motors, TSLA. Electric vehicles, solar; purer-play in EVs & energy storage.

Cleaner Fuels - 6% sector weight (2 stocks @2.75% each; +1 *banded stock)
 Air Products & Chemicals, APD. Hydrogen, is a supplier of industrial gases.
 *Hydrogenics, HYGS. Hydrogen, fuel and electrolysis for fuel cells, H2 storage.
 Renewable Energy Group, REGI. Biodiesel, natural fats, oils, grease to biofuels.

ECO (via independent tracker, bold) plus 'tough time' clean & fossil fuel themes the past 5 years from April 1, 2012 to March 1, 2017; a period that has included big declines:



Source: Bigcharts.com

As seen by ECO (via tracker bold) plus several other themes above, the last 5 years have been very rough for many themes in clean, alternative, & traditional fossil fuel energy. For example despite ECO falling hard and so ending this period down around some -30%, this clean energy theme still sits above a tracker for Solar-only (blue), far above oil's tracker, orange, quite above a tracker for Coal also blue (once at bottom, though coal rose sharply in 2016) and above too a Natural Gas tracker also near bottom (burnt red).

So clean energy is down here some -30%, yet fossil fuels are down around -60 to -70%! These last 5 years were remarkably tough across many energy themes, including all fossil fuels: oil, coal, and natural gas! But Not All Energy themes suffered so harshly...

Of note for finishing both near nil or positive with 'much better' results are two themes: the global new energy NEX, brown at very top (tracker PBD) - and in light green (ironically) the 'brownish-themed' WilderHill Progressive Energy Index (WHPRO). The former, NEX is actually up some +20%, the latter near nil these 5 years. It's interesting too to see that Global clean new energy as captured by NEX did relatively quite 'better' than ECO this period above (though not 2nd half 2016 or Q1 2017) as both are in clean/new energy.

Appendix III: WHPRO Index via independent tracker PUW; component weights as seen in late-Q1 2017 on 3/16/2017 or about ~2 weeks before the rebalance to start Q2 2017. 42 Stocks:

<u>Name</u>	<u>Symbol</u>	<u>Weight</u>
Cia Energetica de Minas Gerais ADR	CIG	4.008
Owens Corning	OC	3.194
Albemarle Corp	ALB	2.998
AO Smith Corp	AOS	2.976
Apogee Enterprises Inc	APOG	2.964
Regal Beloit Corp	RBC	2.964
Golar LNG Ltd	GLNG	2.955
Eaton Corp PLC	ETN	2.924
Emerson Electric Co	EMR	2.915
Corning Inc	GLW	2.893
Tata Motors Ltd ADR	TTM	2.818
Tenneco Inc	TEN	2.798
Methanex Corp	MEOH	2.791
Cosan Ltd	CZZ	2.765
WABCO Holdings Inc	WBC	2.732
NRG Yield Inc	NYLD	2.715
FMC Corp	FMC	2.696
Woodward Inc	WWD	2.693
ESCO Technologies Inc	ESE	2.667
Altra Industrial Motion Corp	AIMC	2.649
MasTec Inc	MTZ	2.582
Covanta Holding Corp	CVA	2.482
Hannon Armstrong Sustainable Inf.	HASI	2.457
EnerSys	ENS	2.447
Acuity Brands Inc	AYI	2.425
Calpine Corp	CPN	2.402
Chart Industries Inc	GTLS	2.394
McDermott International Inc	MDR	2.3
Lydall Inc	LDL	2.29
Chicago Bridge & Iron Co NV	CBI	2.26
Andersons Inc/The	ANDE	2.256
Green Plains Inc	GPRE	2.128
Range Resources Corp	RRC	2.095
Clean Energy Fuels Corp	CLNE	2.088
CECO Environmental Corp	CECE	1.939
Chesapeake Energy Corp	CHK	1.895
Southwestern Energy Co	SWN	1.835
Pacific Ethanol Inc	PEIX	1.782
Luxfer Holdings PLC ADR	LXFR	0.534
Hudson Technologies Inc	HDSN	0.471
Heritage-Crystal Clean Inc	HCCI	0.43
Kandi Technologies Group Inc	KNDI	0.398

Appendix IV: WHPRO Index for the start of the New Quarter.

Sectors & Stock Weightings: WilderHill Progressive Energy Index (WHPRO) for start of Q2 2017. 44 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 - 23% Sector Weight (8 stocks @2.75% each +2 *banded)

Andersons, ANDE. Ethanol producer, corn-based; rail group is in fuel transport.
Chesapeake Energy, CHK. Natural gas, one of larger U.S. independent producers.
**Clean Energy Fuels*, CLNE. Natural gas fuel integration; for use in fleet vehicles.
Cosan, CZZ. Biofuels, Brazil-based using sugarcane feedstock, ethanol exporter.
Green Plains Energy, GPRE. Biofuel, ethanol; using U.S. domestic feedstock.
Methanex, MEOH. Methanol, liquid fuel may be derived from fossil fuels or organics.
**Pacific Ethanol*, PEIX. Biofuels, major U.S. producer of lower-carbon fuels.
Range Resources, RRC. Natural gas, produces in Appalachian & Gulf Coast regions.
Rex American, REX. Biofuels, with subsidiaries is a major U.S. ethanol producer.
Southwestern Energy, SWN. Natural gas, U.S. producer, also midstream services.

Conversion & Storage - 25% Sector weight (10 stocks @2.50% each)

Albermarle, ALB. Lithium & Lithium Compounds; for energy storage, transportation.
Altra Holdings, AIMC. Mechanical power transmission, electromechanical conversion.
Chart Industries, GTLS. Natural gas, LNG; liquefied gas storage/transport, efficiency.
Chicago Bridge & Iron, CBI. Engineering, natural gas, next-gen nuclear designs.
Covanta Holding, CVA. Incineration, converts waste to energy (WtE); conglomerate.
EnerSys, ENS. Battery maker, for telecommunications, utilities, motive power.
FMC, FMC. Lithium producer for carbonate, metal, expanding hydroxide capacity.
Golar LNG, GLNG. LNG, major independent carrier, gas transport, regasification.
MasTec, MTZ. Engineering & construction, distribution of electricity, natural gas.
Wabco, WBC. Mechatronics, better vehicle mechanical/energy/braking controllers.

Better Efficiency - 18% Sector Weight (7 stocks @2.57% each)

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.
Regal Beloit, RBC. Energy efficient motors, in commercial, industrial, homes etc.
Woodward, WWD. Energy controllers, optimization, industrial turbines in generation.

Emission Reduction - 12% Sector Weight (4 stocks @2.62% each +3 *banded)

**CECO Environmental*, CECE. End-of-pipe emissions controls and pollution reduction.
Corning, GLW. Diverse, activity includes emissions reduction, filters, and catalysts.
**Kandi Technologies*, KNDI. Developing small gasoline and urban electric vehicles.
**Luxfer Holdings PLC*, LXFR. Advanced material, reduced emissions, gaseous storage.
McDermott, MDR. Natural Gas; fewer emissions/CO2 vs. coal; EPCI in LNG facilities.
Tata Motors, TTM. Smaller & 'nano' vehicles, India-based with worldwide sales.
Tenneco, TEN. Automotive end-of-pipe emissions controls, catalytic converters.

New Energy Activity - 9% Sector weight (3 stocks @2.66% each +2 *banded stocks).

Eaton, ETN. Hybrids, better electric and fluid power in truck & auto applications.
**Hudson*, HDSN. Refrigerant HFCs reclamation; reduces potent greenhouse gases.
**Heritage Crystal Clean*, HCCI. Oil re-refining, modern waste reuse and recycling.
Lydall, LDL. Thermal and filtration separation; innovative energy efficiency.
Owens Corning, OC. Materials lightening, building insulation composite materials.

Utility - 13% Sector weight (5 stocks @2.60% each)

Avangrid, AGR. Electricity & Natural Gas, generation, storage, distribution.
Calpine, CPN. Natural Gas & Geothermal, North America, lower-carbon assets
Companhia Energetica de Minas Cemig, CIG. Brazil Utility, large hydroelectric.
Hannon Armstrong, HASI. Energy efficiency, capital & finance for infrastructure.
NRG Yield, NYLD. Contracted power generation and thermal, also some renewables.

Chart for the WHPRO Index via independent tracker (in bold) Past 5 years to March 1, 2017
- versus the ECO Index shown in light blue via independent tracker:



Source: Bigcharts.com

WHPRO Index here in bold last 5 years for 2012 - 2017 as seen via a tracker above. This includes a period of WHPRO rising 2012 to Summer 2014 hitting a relative high - dropping strongly to a February nadir early 2016 - then rising again strongly over 2016 to December. Thus it finishes near nil, while ECO is down near -30% (in a last Quarterly Report, WHPRO had finished up some +15%). Hence the WHPRO theme for less CO2/pollution from fossil fuels moves rather quite unlike the ECO basket blue tracker that dropped relatively much harder in 2012-2014, again from 2014, and stayed lower through here over 2016.

Another observation is this chart above is even more different from a 5 years chart to Q2 /June 2016 as was shown two ECO Quarterly Reports ago; that chart going to mid-year 2016 had shown WHPRO finishing down about -20%, ECO down nearly -60%. One difference can be attributed to starting points: June 2011 vs Jan. 2012 vs. June 2012 - as WHPRO starts out lower - the ECO tracker too starts lower as well. Sharp declines back some 5 years ago from 2011, meant the Indexes might start to display 'better' past-5 year returns now.

That said all 3 WilderHill Indexes are in 2017 far below their previous all time highs. ECO is *much* lower - having been in 2007 several-fold higher - in some part due to a solar sub-theme having fallen so greatly from its peaks (and all of the fossil fuels have fallen too). As always, past movements are not an indication of future performance.

Appendix V: WilderHill New Energy Global Innovation Index (NEX) seen late-Q1 2017 via independent tracker (PBD) on 3/16/17 or ~2 weeks before Rebalance to start Q2 2017. 97 in tracker:

Name	Symbol	Weight
Universal Display Corp	OLED	2.556
Epistar Corp		2448 2.199
Kingspan Group PLC	KSP	2.074
Tesla Inc	TSLA	2.068
OSRAM Licht AG	OSR	1.995
Philips Lighting NV	LIGHT	1.969
Vestas Wind Systems A/S	VWS DC	1.957
Huaneng Renewables Corp Ltd		958 1.906
Boralex Inc	BLX	1.886
Gamesa Corp Tecnologica SA	GAM	1.846
China Longyuan Power Group Corp Ltd		916 1.801
Nibe Industrier AB	NIBEB SS	1.783
Meidensha Corp		6508 1.774
TransAlta Renewables Inc	RNW	1.745
NRG Yield Inc	NYLD	1.725
Veeco Instruments Inc	VECO	1.721
Cree Inc	CREE	1.691
EDP Renovaveis SA	EDPR	1.691
Pattern Energy Group Inc	PEGI	1.679
Hannon Armstrong Sustainable Infra.	HASI	1.677
Caverion Corp	CAV1V FH	1.663
Xinjiang Goldwind Science & Technology		2208 1.654
Itron Inc	ITRI	1.638
Greencoat UK Wind PLC/Funds	UKW LN	1.612
China High Speed Transmission Equip.		658 1.596
DONG Energy A/S	DENERG DC	1.573
Renewables Infrastructure Group Ltd	TRIG LN	1.571
GS YUASA CORP		6674 1.55
TerraForm Power Inc	TERP	1.548
BYD Co Ltd		1211 1.527
Acuity Brands Inc	AYI	1.524
Canadian Solar Inc	CSIQ	1.409
China Everbright International Ltd		257 1.394
Atlantica Yield plc	ABY	1.373
GCL-Poly Energy Holdings Ltd		3800 1.365
FDG Electric Vehicles Ltd		729 1.339
SunPower Corp	SPWR	1.298
Canvest Environmental Protection Group		1381 1.287
SMA Solar Technology AG	S92	1.268
First Solar Inc	FSLR	1.263
Xinyi Solar Holdings Ltd		968 1.256
Gigasolar Materials Corp		3691 1.22
Novozymes A/S	NZYMB DC	1.182
Nordex SE	NDX1	1.11
Sao Martinho SA	SMT03	1.075

Superblock PCL	SUPER-R TB	1.042
Drax Group PLC	DRX LN	0.983
Energy Development Corp	EDC	0.965
Energy Absolute PCL	EA-R TB	0.927
Ormat Technologies Inc	ORA	0.912
Verbund AG	VER AV	0.879
Contact Energy Ltd	CEN	0.866
Green Plains Inc	GPRE	0.863
Mercury NZ Ltd	MCY	0.858
Innergex Renewable Energy Inc	INE	0.846
Dialight PLC	DIA LN	0.6
Ballard Power Systems Inc	BLDP	0.578
Everlight Electronics Co Ltd		2393 0.54
China Power New Energy Development		735 0.538
Shunfeng International Clean Energy		1165 0.536
China Titans Energy Technology Group		2188 0.533
Odelic Co Ltd		6889 0.516
TPI Composites Inc	TPIC	0.502
LSI Industries Inc	LYTS	0.495
Ameresco Inc	AMRC	0.485
Wasion Group Holdings Ltd		3393 0.48
Sino-American Silicon Products Inc		5483 0.475
Saeta Yield SA	SAY	0.474
VERBIO Vereinigte BioEnergie AG	VBK	0.459
Senvion SA	SEN	0.456
Utilitywise PLC	UTW LN	0.446
Ricardo PLC	RCDO LN	0.446
Meyer Burger Technology AG	MBTN SW	0.44
EnerNOC Inc	ENOC	0.437
Maxwell Technologies Inc	MXWL	0.409
Motech Industries Inc		6244 0.404
Advanced Lithium Electrochemistry		5227 0.402
United Photovoltaics Group Ltd		686 0.402
Silver Spring Networks Inc	SSNI	0.401
SolarEdge Technologies Inc	SEDG	0.396
Kandi Technologies Group Inc	KNDI	0.388
Plug Power Inc	PLUG	0.384
NEO SOLAR POWER CORP		3576 0.383
Tanaka Chemical Corp		4080 0.377
SPCG PCL	SPCG-R TB	0.376
GCP Infrastructure Investments Ltd	GCP LN	0.375
JA Solar Holdings Co Ltd ADR	JASO	0.365
China Singyes Solar Technologies		750 0.359
Vivint Solar Inc	VSLR	0.357
Capital Stage AG	CAP	0.356
West Holdings Corp		1407 0.349
Takuma Co Ltd		6013 0.344
Albioma SA	ABIO FP	0.342
Sunrun Inc	RUN	0.341

REC Silicon ASA	REC	0.341
Renewable Energy Group Inc	REGI	0.3
Akenerji Elektrik Uretim AS	AKENR TI	0.228

Recent past Sector Weightings in NEX Index, as seen late last year in 2016:

<u>NEX Index Sector</u>	<u>Key</u>	<u>NEX Sector</u>
<u>Weights - Q4 2016</u>		
1.00%	ECV	Energy Conversion
31.83%	EEF	Energy Efficiency
5.64%	ENS	Energy Storage
9.03%	RBB	Renewables - Biofuels & Biomass
5.43%	ROH	Renewables - Other
17.92%	RSR	Renewable - Solar
29.14%	RWD	Renewable - Wind

Appendix VI:

WilderHill New Energy Global Innovation Index (NEX) for start of Q2 2017.

Grouped here generally by NEX Index Sector:

(subject to revision; see also http://www.nexindex.com/Constituents_And_Weightings.php)

<u>Name</u>	<u>Recent Est. Sector</u>	<u>Weight</u>
Everlight Electronics Co Ltd	EEF	0.0054
Ricardo PLC	EEF	0.0054
Silver Spring Networks Inc	EEF	0.0054
Wasion Group Holdings Ltd	EEF	0.0054
Dialight PLC	EEF	0.0054
Ameresco Inc	EEF	0.0054
LSI Industries Inc	EEF	0.0054
Odelic Co Ltd	EEF	0.0054
Kandi Technologies Group Inc	EEF	0.0054
Utilitywise PLC	EEF	0.0054
EnerNOC Inc	EEF	0.0054
China Titans Energy Technology	EEF	0.0054
Tesla Motors Inc	EEF	0.0190
Acuity Brands Inc	EEF	0.0190
OSRAM Licht AG	EEF	0.0190
Kingspan Group PLC	EEF	0.0190
Philips Lighting NV	EEF	0.0190
Nibe Industrier AB	EEF	0.0190
Universal Display Corp	EEF	0.0190
Cree Inc	EEF	0.0190
Epistar Corp	EEF	0.0190
Veeco Instruments Inc	EEF	0.0190
Itron Inc	EEF	0.0190
Hannon Armstrong Sustainable Infra.	EEF	0.0190
Meidensha Corp	EEF	0.0190

Caverion Corp	EEF	0.0190
First Solar Inc	RSR	0.0129
SunPower Corp	RSR	0.0129
Canadian Solar Inc	RSR	0.0129
Atlantica Yield plc	RSR	0.0129
GCL-Poly Energy Holdings Ltd	RSR	0.0129
Xinyi Solar Holdings Ltd	RSR	0.0129
Superblock PCL	RSR	0.0129
SMA Solar Technology AG	RSR	0.0129
Gigasolar Materials Corp	RSR	0.0129
TerraForm Power Inc	RSR	0.0129
Sino-American Silicon Products Inc	RSR	0.0037
Capital Stage AG	RSR	0.0037
SolarEdge Technologies Inc	RSR	0.0037
United Photovoltaics Group Ltd	RSR	0.0037
SPCG PCL	RSR	0.0037
Sunrun Inc	RSR	0.0037
Neo Solar Power Corp	RSR	0.0037
Motech Industries Inc	RSR	0.0037
Meyer Burger Technology AG	RSR	0.0037
Shunfeng International Clean Energy	RSR	0.0037
China Singyes Solar Technologies	RSR	0.0037
REC Silicon ASA	RSR	0.0037
Vivint Solar Inc	RSR	0.0037
JA Solar Holdings Co Ltd	RSR	0.0037
West Holdings Corp	RSR	0.0037
GCP Infrastructure Investments Ltd	RSR	0.0037
SENVION SA	RWD	0.0047
China Power New Energy Development	RWD	0.0047
Saeta Yield SA	RWD	0.0047
TPI Composites Inc	RWD	0.0047
Vestas Wind Systems A/S	RWD	0.0166
DONG Energy A/S	RWD	0.0166
China Longyuan Power Group Corp Ltd	RWD	0.0166
Gamesa Corp Tecnologica SA	RWD	0.0166
Xinjiang Goldwind Science & Tech.	RWD	0.0166
EDP Renovaveis SA	RWD	0.0166
Huaneng Renewables Corp Ltd	RWD	0.0166
NRG Yield Inc	RWD	0.0166
Nordex SE	RWD	0.0166
Pattern Energy Group Inc	RWD	0.0166
China High Speed Transmission	RWD	0.0166
Boralex Inc	RWD	0.0166
TransAlta Renewables Inc	RWD	0.0166
Renewables Infrastructure Group Ltd	RWD	0.0166
Greencoat UK Wind PLC/Funds	RWD	0.0166
Novozymes A/S	RBB	0.0104
China Everbright International Ltd	RBB	0.0104
Green Plains Inc	RBB	0.0104

Drax Group PLC	RBB	0.0104
Energy Absolute PCL	RBB	0.0104
Sao Martinho SA	RBB	0.0104
Canvest Environmental Protection Group	RBB	0.0104
Takuma Co Ltd	RBB	0.0030
VERBIO Vereinigte BioEnergie AG	RBB	0.0030
Albioma SA	RBB	0.0030
Renewable Energy Group Inc	RBB	0.0030
Advanced Lithium Electrochemistry	ENS	0.0048
Maxwell Technologies Inc	ENS	0.0048
Tanaka Chemical Corp	ENS	0.0048
Byd Co Ltd	ENS	0.0169
GS Yuasa Corp	ENS	0.0169
FDG Electric Vehicles Ltd	ENS	0.0169
Verbund AG	ROH	0.0078
Ormat Technologies Inc	ROH	0.0078
Contact Energy Ltd	ROH	0.0078
Innergex Renewable Energy Inc	ROH	0.0078
Mercury NZ Ltd	ROH	0.0078
Energy Development Corp	ROH	0.0078
Akenerji Elektrik Uretim AS	ROH	0.0022
Ballard Power Systems Inc	ECV	0.0033
Plug Power Inc	ECV	0.0033
Credit Suisse Real Estate Fund Green Prop.	EEF	0.0054
eRex Co Ltd	RBB	0.0030

For values see also, http://www.nex-index.com/Constituents_And_Weightings.php

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	NEXEU	^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	NEXBPT	^NEXBPT
JPY Total Return Index	NEXJYT	26499Z37	NEXJYT:IND	NEXJYT	^NEXJYT

*The Global NEX Index only is a unique co-equal Partnership as between three entities: Bloomberg New Energy Finance with global presence; Josh Landess of First Energy Research; and Dr. Rob Wilder - jointly being WilderHill New Energy Finance LLC (WHNEF). NEX is produced by this WHNEF.
