Renewable Energy Opportunities

Stocks - Mutual Funds - ETFs - Structured Products



The Renewable Energy Market

- Renewable Energy is set to grow at a rate of 6% p.a. (solar, wind, hydro & biomass)
- Renewables will make up 50% of electricity production while electricity will double from 2020 to 2050*
- The attraction is in the exponential efficiency gains of renewable energies Renewable Energy remains linked to energy commodity prices and therefor are riskier than the broad market as an emerging technology. However, the Energy revolution taking place is transforming national economies, geopolitics, energy groups, transportation industries, utilities and the automotive sector. Whether you invest in it or not...it will affect your portfolio.

Source: *McKinsey 2019 Energy Insights Global Energy

The Renewable Energy Market

The Renewable Energy Index has outperformed the oil & gas market since 2013 but has trailed the broad global market. Renewable energy is a good substitute to your current energy allocation but is subject to the volatility of the commodity sector.

When oil or gas prices fell naturally the price of renewable energy stocks retreat as the competition with fossil fuel becomes more intense.

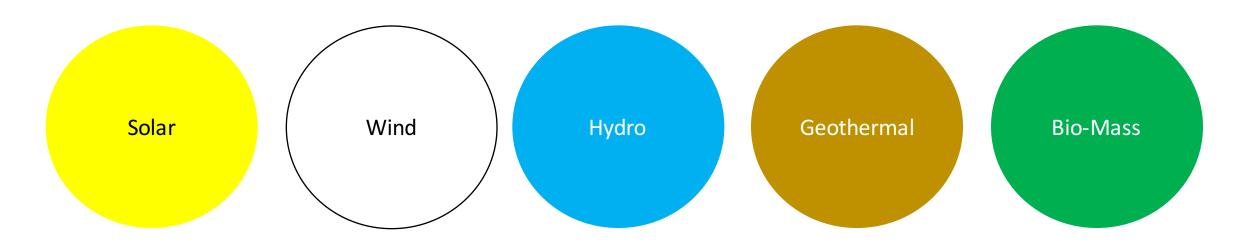
As a result the allocation should not exceed 5% of your portfolio since energy represents that portion of most global indices.

Renewable energy vs oil & gas vs global stock market



Renewable Energy Components

Power Sources



Equity Sectors

Mining	Utilities	Industrials	Transportation	Technology	Waste Mgmt.	Consumer
						Cyclical

Renewable Energy Components

	Mining	Utilities	Industrials	Transportation	Technology	Waste Mgmt.	Consumer Cyclical
	Sociedad Quimica y Minera (SQM)	NextEra Energy (NEE)	Siemens Gamesa Renewable Energy (OTCMKTS:GCTAF)	NFI Group, Inc. (NFI.TO, NFYEF)	Enphase Energy Inc. (ENPH)	Veolia Environnement S.A. (VIE.PA)	Vivint Solar Inc (NYSE: VSLR)
	Albemarle (ALB)	Brookfield Renewable Partners (BEP)	Orsted A/S (DNNGY)	Tesla (NASDAQ:TSLA)	SolarEdge Technologies Inc. (SEDG)		
Stocks	First Cobalt Corp. (FCC:TSX.V)	TransAlta Corp (TAC:NYSE)	Canadian Solar Inc. (CSIQ)				
Sto	Lithium Americas Corp. (LAC:NYSE)	AES Corporation (NYSE: AES)	Vestas Wind Systems A/S (VWDRY)				
			Clearway Energy (NYSE: CWEN)				
		TerraForm Power (NASDAQ: TERP)	TPI Composites (TPIC)	Valeo SA			
	ETF Mining	ETF General			ETF Solar	ETF Wind	
ဟ		ALPS Clean Energy ETF (CBOE:ACES)			Invesco Solar ETF	First Trust ISE Global Wind Energy Index Fund	
ETFs	Global X Lithium & Battery Tech ETF (NYSE:LIT)	iShares Global Clean Energy ETF (ICLN)					
	Amplify Advanced Battery Metals and Materials ETF	Invesco WilderHill Clean Energy ETF (PBW)					

(NYSE:BATT

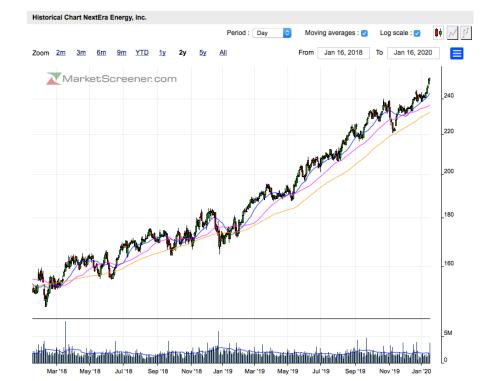
Renewable Energy Equities

NextEra Energy

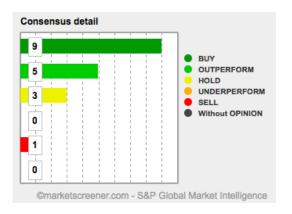
NextEra Energy (NYSE:NEE) world's largest utility, it's also the largest producer of wind and solar energy anywhere on the planet., its subsidiary, NextEra Energy Resources is paving the way for future shareholders gains. It owns 120 wind facilities in North 13,000 America that generate megawatts of energy annually. It also generates more than 2,000 megawatts of solar power from facilities in seven states and Canada, along with natural gas-fired and nuclear power plants.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	33,3x	27,8x
Capitalization / Revenue	6,39x	6,11x
EV / Revenue	8,59x	8,22x
EV / EBITDA	16,2x	14,8x
Yield (DPS / Price)	1,97%	2,22%
Price to book (Price / BVPS)	3,14x	3,03x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	29,4%	31,2%
Operating Leverage (Delta EBIT / Delta Sales)	2,12x	2,38x
Net Margin (Net Profit / Revenue)	17,6%	20,8%
ROA (Net Profit / Asset)	3,71%	3,69%
ROE (Net Profit / Equities)	10,8%	11,2%
Rate of Dividend	65,6%	61,7%







Orsted A/S

Orsted A/S (ORSTED-DK): Copenhagen Stock Exchange) is a Denmark-based energy company engaged in procuring, producing, distributing and trading energy and related products in Northwestern Europe. The Company towns the two largest offshore wind farms in the world: London Array and the Walney Wind Farm, both in the UK. Ørsted acquired Deepwater Wind in 2018 to gain exposure to the American offshore market, and this acquisition gave the company a 25% market share in the global offshore wind market. It is committed to green energy, with aims to reduce its CO2 emissions by 96% and to phase out the use of coal in its operations by 2023.

P/E ratio (Price / EPS) 42,7x 26,0x O Capitalization / Revenue 3,92x 4,24x O EV / Revenue 4,09x 4,42x N EV / EBITDA 17,9x 14,7x R Yield (DPS / Price) 1,53% 1,66% R Price to book (Price / BVPS) 3,69x 3,40x R	Valuation	2019e	2020e	P
EV / Revenue 4,09x 4,42x N EV / EBITDA 17,9x 14,7x R Yield (DPS / Price) 1,53% 1,66% R	P/E ratio (Price / EPS)	42,7x	26,0x	C
EV / EBITDA 17,9x 14,7x R Yield (DPS / Price) 1,53% 1,66% R	Capitalization / Revenue	3,92x	4,24x	C
Yield (DPS / Price) 1,53% 1,66% R	EV / Revenue	4,09x	4,42x	N
1,0070	EV / EBITDA	17,9x	14,7x	R
Price to book (Price / BVPS) 3,69x 3,40x	Yield (DPS / Price)	1,53%	1,66%	R
	Price to book (Price / BVPS)	3,69x	3,40x	R

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	13,5%	19,8%
Operating Leverage (Delta EBIT / Delta Sales)	-13,0x	-
Net Margin (Net Profit / Revenue)	9,26%	16,7%
ROA (Net Profit / Asset)	3,96%	8,21%
ROE (Net Profit / Equities)	8,68%	12,6%
Rate of Dividend	65,5%	43,1%





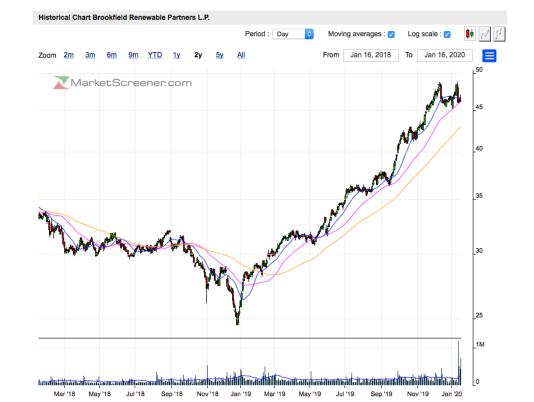


Brookfield Renewable Partners LP

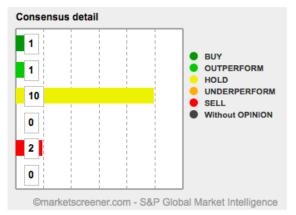
Brookfield Renewable Partners LP (BEP:NYSE) Brookfield Renewable Partners operates one of the world's largest publicly-traded renewable power platforms. Its portfolio consists of over 18,000 MW of capacity and 5,253 generating facilities in North America, South America, Europe and Asia. BRP had increased its ownership (with partners) of TerraForm Power (NASDAQ:TERP) from 51% to 65%.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	439x	115x
Capitalization / Revenue	4,83x	4,84x
EV / Revenue	8,12x	8,14x
EV / EBITDA	10,4x	9,92x
Yield (DPS / Price)	4,45%	4,68%
Price to book (Price / BVPS)	1,93x	2,05x

Profitability	2019e	2020
Operating Margin (EBIT / Sales)	47,2%	46,6%
Operating Leverage (Delta EBIT / Delta Sales)	-	-8,59
Net Margin (Net Profit / Revenue)	0,94%	3,40%
ROA (Net Profit / Asset)	-	
ROE (Net Profit / Equities)	1,00%	0,60%
Rate of Dividend	1 953%	538%





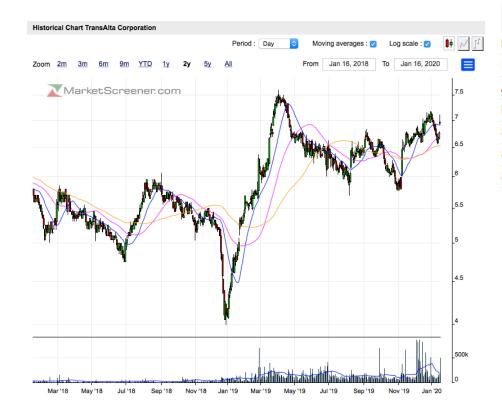


TransAlta Corp

TransAlta Corp (TAC:NYSE) is a non-regulated electricity generation and energy marketing company with an aggregate net ownership interest of approximately 8,720 megawatts of generating capacity. The Company is engaged in the production and sale of electric energy. It focuses on generating and marketing electricity in Canada, the United States and Western Australia through its diversified portfolio of facilities fuelled by coal, natural gas, diesel, hydro, wind and solar.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	118x	-36,9x
Capitalization / Revenue	1,11x	1,17x
EV / Revenue	2,45x	2,59x
EV / EBITDA	5,91x	5,88x
Yield (DPS / Price)	1,77%	1,78%
Price to book (Price / BVPS)	1,32x	1,42x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	16,8%	17,2%
Operating Leverage (Delta EBIT / Delta Sales)	-	-0,53x
Net Margin (Net Profit / Revenue)	0,96%	-1,44%
ROA (Net Profit / Asset)	-0,30%	-0,30%
ROE (Net Profit / Equities)	-0,40%	0,15%
Rate of Dividend	208%	-65,8%



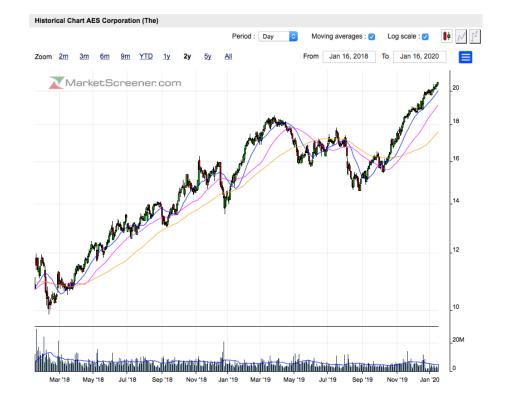
Sell Buy
OUTPERFORM
10
10,97 CAD
9,05 CAD
54,7%
21,2%
-3,87%

AES Corporation

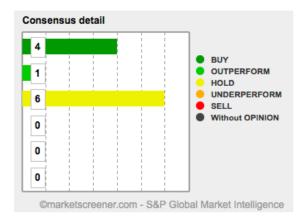
AES Corporation (NYSE: AES) The Company, through its subsidiaries and affiliates, operates a diversified portfolio of electricity generation and distribution businesses. It is organized into six strategic business units (SBUs): the United States; Andes; Brazil; Mexico, Central America and the Caribbean (MCAC); Europe, and Asia.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	17,6x	13,4x
Capitalization / Revenue	1,23x	1,20x
EV / Revenue	2,90x	2,83x
EV / EBITDA	9,31x	8,41x
Yield (DPS / Price)	2,70%	2,86%
Price to book (Price / BVPS)	3,92x	3,44x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	20,9%	22,8%
Operating Leverage (Delta EBIT / Delta Sales)	-	4,83x
Net Margin (Net Profit / Revenue)	5,97%	7,92%
ROA (Net Profit / Asset)	2,75%	2,89%
ROE (Net Profit / Equities)	24,1%	25,5%
Rate of Dividend	47,4%	38,2%





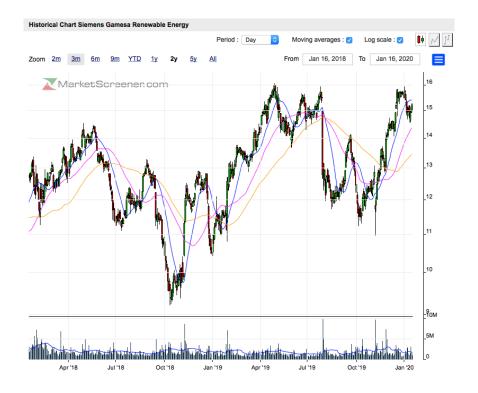


Siemens Gamesa Renewable Energy

SIEMENS GAMESA RENEWABLE ENERGY (SGRE), the world's largest producer of wind turbines and one of the interesting renewable stocks to buy without going all in on renewables. Siemens Gamesa sells its turbines to both onshore and offshore wind farms around the world.

Valuation	2020e	2021e
P/E ratio (Price / EPS)	49,4x	26,1x
Capitalization / Revenue	0,97x	0,93x
EV / Revenue	0,92x	0,88x
EV / EBITDA	9,59x	8,10x
Yield (DPS / Price)	0,57%	1,03%
Price to book (Price / BVPS)	1,63x	1,55x

Profitability	2020e	2021e
Operating Margin (EBIT / Sales)	5,98%	6,70%
Operating Leverage (Delta EBIT / Delta Sales)	-	3,85x
Net Margin (Net Profit / Revenue)	2,47%	3,32%
ROA (Net Profit / Asset)	1,61%	2,45%
ROE (Net Profit / Equities)	6,91%	7,70%
Rate of Dividend	28,4%	26,9%





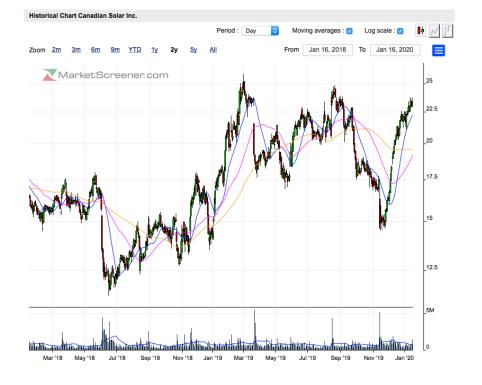


Canadian Solar Inc.

Canadian Solar Inc. (CSIQ), Canadian Solar is a Canada-based solar power company that designs, manufactures, and sells solar module products that convert sunlight into electricity. Its energy segment consists of solar power development, engineering, project procurement and construction (EPC) operation services. and maintenance (O&M) services. products include a range of solar in residential, modules for use commercial and industrial solar power generation systems.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	11,1x	7,40x
Capitalization / Revenue	0,43x	0,33x
EV / Revenue	0,82x	0,63x
EV / EBITDA	8,66x	4,96x
Yield (DPS / Price)	-	-
Price to book (Price / BVPS)	0,99x	0,88x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	6,02%	7,39%
Operating Leverage (Delta EBIT / Delta Sales)	-3,01x	1,99x
Net Margin (Net Profit / Revenue)	4,26%	4,66%
ROA (Net Profit / Asset)	2,42%	3,42%
ROE (Net Profit / Equities)	9,31%	12,7%
Rate of Dividend	-	-







Vestas Wind Systems

Vestas Wind Systems A/S (VWDRY)

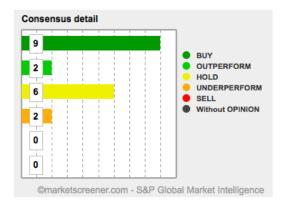
Vestas Wind Systems has installed more wind power than any other company in the world, estimated at around 68,000 turbines in 80 countries across six continents.4 As well as the turbines it installs, Vestas is also responsible for servicing 41,000 turbines, and it delivers 800,000 wind turbine parts annually. The company is based in Denmark, with factories in a number of locations including the US, China and Spain. Vestas offers a range of products in the wind energy sector, including turbine installation, turbine maintenance, and knowledge and resource sharing to help with the optimisation of different wind farm locations.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	23,9x	18,4x
Capitalization / Revenue	1,45x	1,25x
EV / Revenue	1,23x	1,06x
EV / EBITDA	9,59x	8,05x
Yield (DPS / Price)	1,27%	1,60%
Price to book (Price / BVPS)	4,89x	4,17x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	8,45%	9,01%
Operating Leverage (Delta EBIT / Delta Sales)	0,23x	1,48x
Net Margin (Net Profit / Revenue)	6,21%	6,86%
ROA (Net Profit / Asset)	5,46%	6,46%
ROE (Net Profit / Equities)	21,6%	23,6%
Rate of Dividend	30,4%	29,5%







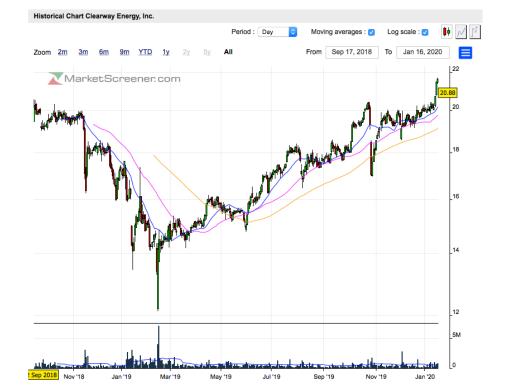
Clearway Energy

Clearway Energy (NYSE: CWEN)

The Company's segments include Conventional Generation, Renewables, Thermal and Corporate. The Company's businesses are segregated based on conventional power generation, renewable businesses, which consist of solar and wind, and the thermal and chilled water business. Clearway nergy operating solar and wind projects in 25 states and developing new projects across many more.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	44,1x	14,8x
Capitalization / Revenue	2,29x	1,93x
EV / Revenue	7,93x	6,69x
EV / EBITDA	8,54x	7,94x
Yield (DPS / Price)	3,86%	4,05%
Price to book (Price / BVPS)	-	-

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	33,0%	41,8%
Operating Leverage (Delta EBIT / Delta Sales)	-	2,70x
Net Margin (Net Profit / Revenue)	4,58%	15,3%
ROA (Net Profit / Asset)	0,60%	1,30%
ROE (Net Profit / Equities)	2,52%	10,3%
Rate of Dividend	170%	59,9%





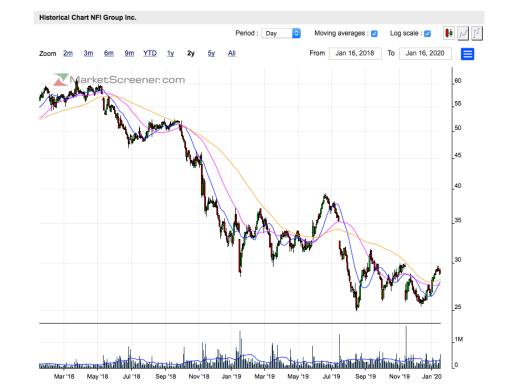


NFI Group, Inc.

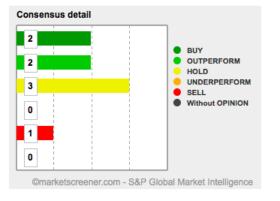
Clearway Energy (NFI.TO) is a Canadabased bus and motor coach manufacturer and parts distributor in North America, with approximately 32 fabrication, manufacturing, distribution and service centers located across Canada and the United States. The Company provides a mass transportation solutions under several brands, New Flyer, heavy-duty transit buses; ARBOC, low-floor cutaway and medium-duty buses; MCI, motor coaches; NFI Parts, bus and coach parts, support and service. The Company's vehicles incorporate the wide range of drive systems available ranging from clean diesel, natural gas, diesel-electric hybrid, trolley-electric, battery-electric and fuel cell-electric.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	18,4x	10,3x
Capitalization / Revenue	0,47x	0,42x
EV / Revenue	0,83x	0,74x
EV / EBITDA	7,63x	7,05x
Yield (DPS / Price)	5,73%	5,81%
Price to book (Price / BVPS)	-	-

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	6,08%	6,90%
Operating Leverage (Delta EBIT / Delta Sales)	-	2,23x
Net Margin (Net Profit / Revenue)	2,25%	4,07%
ROA (Net Profit / Asset)	-	-
ROE (Net Profit / Equities)	11,8%	-
Rate of Dividend	105%	60,0%





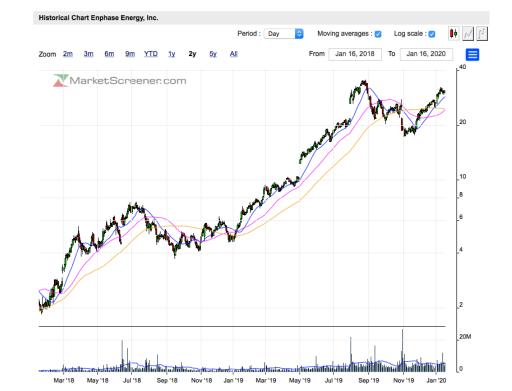


Enphase Energy Inc.

Enphase Energy Inc. (ENPH) is a provider of energy management solutions. It is engaged in designing, developing, manufacturing and selling microinverter systems for the solar photovoltaic industry. Its semiconductor-based microinverter system converts direct current (DC) electricity to alternating current (AC) electricity. Its microinverter system consists of four components: Enphase microinverters, the AC Battery, an Envoy gateway and Enlighten software. cloud-based **Enphase** microinverters provide power conversion at the individual solar module level by a digital architecture that incorporates custom application specific integrated circuits (ASIC), specialized power electronics devices, and an embedded software subsystem.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	50,2x	37,8x
Capitalization / Revenue	6,09x	4,82x
EV / Revenue	5,85x	4,63x
EV / EBITDA	30,3x	23,1x
Yield (DPS / Price)	-	-
Price to book (Price / BVPS)	19,4x	11,6x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	17,0%	18,9%
Operating Leverage (Delta EBIT / Delta Sales)	x	1,53x
Net Margin (Net Profit / Revenue)	13,1%	14,9%
ROA (Net Profit / Asset)	21,9%	21,7%
ROE (Net Profit / Equities)	100,0%	54,0%
Rate of Dividend	-	-





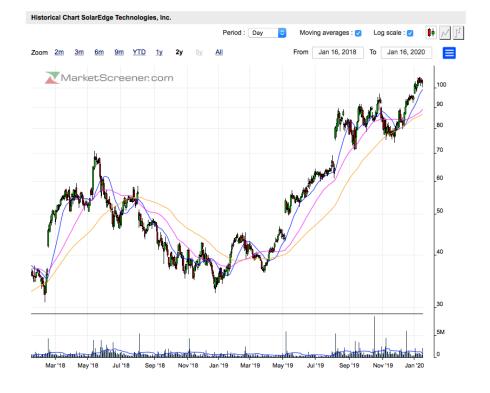


SolarEdge Technologies Inc.

SolarEdge Technologies Inc. (SEDG) offers an inverter solution for a solar photovoltaic (PV) system. The Company's products include SolarEdge Power Optimizer, SolarEdge Inverter, StorEdge and SolarEdge Monitoring Solutions Software. Its product roadmap consists of categories, including power optimizers, inverters, monitoring services, energy storage and smart energy management. The Company's power optimizers provide module-level maximum power point (MPP) tracking and real-time adjustments of current and voltage to the optimal working point of each individual PV module.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	35,3x	24,6x
Capitalization / Revenue	3,52x	3,01x
EV / Revenue	3,26x	2,79x
EV / EBITDA	16,6x	13,7x
Yield (DPS / Price)	-	-
Price to book (Price / BVPS)	6,36x	4,90x
Price to book (Price / BVPS)	6,36x	4,90x

2019e	2020e
14,4%	15,7%
0,90x	1,60x
10,5%	13,4%
17,6%	16,8%
30,3%	27,0%
	-
	14,4% 0,90x 10,5% 17,6%







Veolia Environnement S.A.

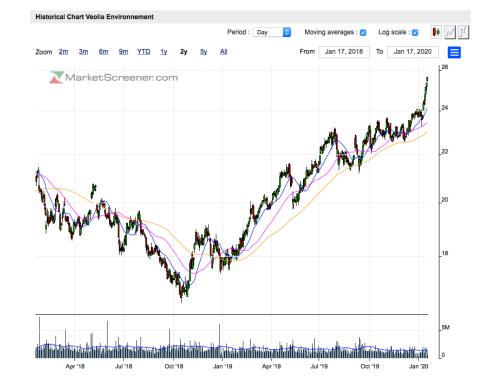
Veolia Environnement S.A. (VIE.PA) Veolia Environnement is the world leader in environmental management services. Net sales break down by activity as follows:

- water-related services (42.1%; No. 1 worldwide)
- cleaning services (37%; No. 1 worldwide):
- energy services (20.9%; Dalkia; No. 1 in Europe):

An investment in Veolia gives access to a number of interesting clean energy technologies which are not available as pureplays. One of the most interesting to me is the production of biogas and other useful products from sewage.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	18,2x	18,7x
Capitalization / Revenue	0,52x	0,51x
EV / Revenue	0,91x	0,89x
EV / EBITDA	6,17x	6,01x
Yield (DPS / Price)	3,88%	4,16%
Price to book (Price / BVPS)	2,31x	2,22x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	6,29%	6,41%
Operating Leverage (Delta EBIT / Delta Sales)	1,47x	1,98x
Net Margin (Net Profit / Revenue)	2,97%	2,79%
ROA (Net Profit / Asset)	1,91%	1,83%
ROE (Net Profit / Equities)	11,9%	11,7%
Rate of Dividend	70,8%	77,7%





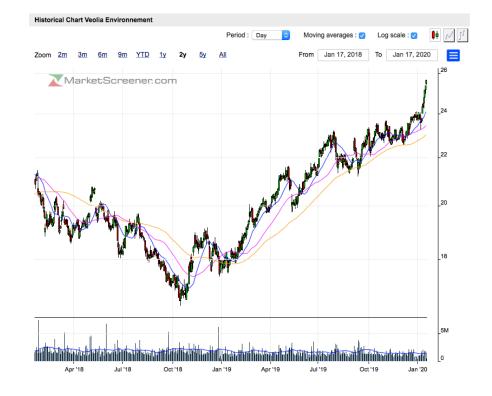


Vivint Solar Inc

Vivint Solar Inc (NYSE: VSLR) Vivint Solar, Inc. is a United States-based company which offers distributed solar energy. The Company generates electricity by a solar energy system installed at or near customers locations. It offers electricity to residential customers, primarily through direct-to-home sales model. Its product offering includes power purchase agreements (PPA), legal-form leases (Solar Leases) and solar energy system sales (System Sales). The Company, under its product PPAs, charge customers a fee per kilowatt hour based on the amount of electricity the solar energy system is actually provided.

Valuation	2019e	2020e
P/E ratio (Price / EPS)	-10,0x	-24,9x
Capitalization / Revenue	2,98x	2,48x
EV / Revenue	6,69x	5,56x
EV / EBITDA	-25,4x	-35,9x
Yield (DPS / Price)	-	-
Price to book (Price / BVPS)	2,29x	1,54x

Profitability	2019e	2020e
Operating Margin (EBIT / Sales)	-51,1%	-38,9%
Operating Leverage (Delta EBIT / Delta Sales)	-	0,41x
Net Margin (Net Profit / Revenue)	-29,1%	-6,10%
ROA (Net Profit / Asset)	-15,1%	-9,60%
ROE (Net Profit / Equities)	-76,6%	-87,9%
Rate of Dividend	-	-







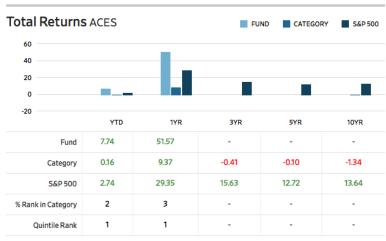
Renewable Energy Funds/ETF

ALPS Clean Energy ETF

ALPS Clean Energy ETF (CBOE:ACES)

Investment Policy: The Fund seeks investment results that correspond to the performance of the CIBC Atlas Clean Energy Index. The Index utilizes a rules-based methodology which is designed to provide exposure to a diverse set of U.S. and Canadian companies involved in the clean energy sector including renewables and clean technology.

The fund's AUM is \$460.7 million and expense ratio, 0.70%



TOP 10 HOLDINGS (ACES)	As of 11/30/19
Name	% of Total Portfolio
Tesla Inc.	6.87%
Brookfield Renewable Partners L.P.	5.91%
Itron Inc.	5.33%
Northland Power Inc.	5.14%
Ormat Technologies Inc.	5.06%
Acuity Brands Inc.	4.92%
NextEra Energy Partners LP	4.86%
Pattern Energy Group Inc.	4.77%
Cree Inc.	4.57%
First Solar Inc.	4.17%

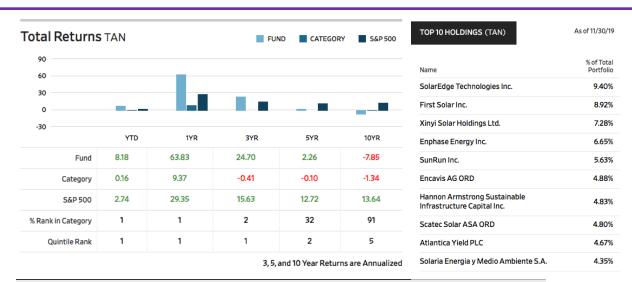
3, 5, and 10 Year Returns are Annualized



Invesco Solar ETF

Invesco Solar ETF (TAN) Investment Policy The Fund seeks to track the investment results of the MAC Global Solar Energy Index. The Fund invests at least 90% of its total assets in the securities (including "ADRs" and "GDRs") that comprise the Underlying Index.

The Fund among 2019's best-performing ETFs. Amid shifting trends in terms of energy consumption, ACES' run could prove durable.





First Trust ISE Global Wind Energy Fund

First Trust ISE Global Wind Energy Fund (FAN) Investment Policy: The Fund seeks investment results that correspond generally to the price and yield of the ISE Global Wind Energy Index. The Fund will normally invest at least 90% of its net assets in common stocks that comprise the Index or in depositary receipts representing securities in the Index.

FAN has an expense ratio of 0.60%



