



The Earth is dynamic with great forces of energy all around us. As the sun heats the atmosphere, wind whips across open landscapes. The ocean is under constant wave and tidal movement, sometimes calmly undulating and then furiously churning. Rainfall and melted snow makes the inevitably downhill race to the oceans, only to evaporate and repeat the same journey. Our great cities and spreading farms lie innocently above a tempest of molten rock.

The Electric Earth Index includes the companies that are attempting to capture earth's energy in mechanical designs from wind mills, to wave machines, to solar concentrators. Many investors will miss the solar cell producers. We have included photovoltaic solar cell developers in The Atomics Index, where they fit well with other companies harnessing the power of the atom.

ELECTRIC EARTH INDEX

GEOTHERMAL GROUP

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
Altarock Energy, Inc.	US	Private	Geothermal power production	http://altarockenergy.com/
Alterra Power Corp.	Canada	MGMXF	Geothermal power generation	http://www.alterrapower.ca/
Calpine Corp.	US	CPN	Nat-gas fired, geothermal power generation	http://www.calpine.com/
Energy Development Corp.	Philippines	EDC: PHL	Geothermal power generation	http://www.energy.com.ph/
Geodynamics Corp.	Australia	GDY: AX	Geothermal power generation	http://www.geodynamics.com.au/
Geysir Green Energy	Iceland	Private	Geothermal power plant technology	http://www.geysirgreenenergy.com/
Landvirkjun hf	Iceland	Private	Geothermal power generation	http://www.landvirkjun.com/
Nevada Geothermal Power, Inc.	Canada	NGP: V	Geothermal power generation	http://www.nevadageothermal.com/
Ormat Technologies, Inc.	US	ORA	Geothermal power, energy recovery	http://www.ormat.com/
Panax Geothermal	Australia	PAX.ASX	Geothermal development, exploration	http://www.panaxgeothermal.com.au/
Potter Drilling, Inc.	US	Private	Hard rock drilling technologies	http://www.potterdrilling.com/
Ram Power Corp.	US	RAMPF	Geothermal power generation	http://www.ram-power.com/
US Geothermal, Inc.	US	HTM	Geothermal exploration	http://www.usgeothermal.com/
WaterFurnace International	US	WFI.TO	Residential heating solution	http://www.waterfurnace.com/

Stock symbols when provided are assumed to be U.S. exchanges unless otherwise indicated.

WIND GROUP

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
AES Corp.	US	AES	Conventional, wind energy production	http://www.aes.com/
Alstom, SA	France	ALSMY	Power generation equipment	http://www.power.alstom.com/
Altaeros Energies	US	Private	High altitude wind power development	http://www.altaosenergias.com/
Boralex	Canada	BLX.TO	Renewable power generation	http://www.boralex.com/en/
Broadwind Energy, Inc.	US	BWEN	Wind components and services	http://www.broadwindenergy.com/
Brookfield Asset Management, Inc.	Canada	BAM	Conventional, wind energy production	http://www.brookfield.com/
Centrica Plc	UK	CAN: LN	Conventional, wind energy production	http://www.centrica.com/
China High Speed Transmission Equipment	China	658: HK	Wind equipment and components	http://www.chste.com/en/
China Longyuan Power Group	China	MY	Wind power production	http://www.clypg.com.cn/en/
China WindPower Group Ltd.	China	0182: HK	Wind power generation	http://www.chinawindpower.com.hk/
City Windmills Plc.	UK	CYW.L	Vertical wind power development	http://www.citywindmills.com/
Clean Wind Energy, Inc.	US	CWET	Wind tower development	http://www.cleanwindenergytower.com/
Clipper Windpower Plc	UK	CWPR: LN	Wind turbine manufacturer	http://www.clipperwind.com/
E.ON AG	Germany	EOAN: FWB	Conventional, wind energy production	http://www.eon.com/en/index.jsp
EDF Energies Nouvelles SA	France	EEN: PA	Wind, renewable power generation	http://www.edf-energies-nouvelles.com/
EDP Renovaveis S/A	Portugal	B39GNW	Wind turbines, power generation	http://www.edprenovaveis.com/
Endesa SA	Spain	IGBM: MC	Conventional, wind energy production	http://www.endesa.com/en/home
Enel SpA	Italy	ENEL: MI	Conventional, wind energy production	http://www.enel.com/en-GB/
EnergieKontor, AG	France	EKT.F	Wind farm development	http://www.energiekontor.de/
EnerKite GmbH	Germany	Private	Airborne wind energy	http://www.enerkite.de/en/
Ever Power Wind Holdings, Inc.	US	Private	Wind power development	http://www.everpower.com/
Exergy Development of Idaho	US	Private	Wind energy producer	http://www.exergydevelopment.com/
Falck Renewables	Italy	FKR.MI	Mixed power generation, incl. wind	http://www.falckrenewables.eu/
Fersa Energias Renovables SA	Spain	FRS: MC	Wind power generation	http://www.fersa.es/index.php?leng=en
Finavera Renewables, Inc.	Canada	FNVRF	Wind power generation	http://www.finavera.com/
FloDesign, Inc.	US	Private	Wind turbine technology	http://flodesign.org/
FutureEnergy, LLC	Australia	Private	Wind farm near Daylesford	http://www.futureenergy.com.au/
Gamesa Corp.	Spain	GAM.MC	Wind turbines; wind farms	http://www.gamesacorp.com/en/
General Electric Co.	US	GE	Wind turbines and equipment	http://www.ge.com/
Greentech Energy Systems A/S	Denmark	GRTSF	Wind equipment, power generation	http://www.greentech.dk/
Hansen Transmissions Intern'l NV	Belgium	HSN: LN	Wind turbine gearboxes	http://www.hansentransmissions.com/en/
Helix Wind, Inc. (Sauer Energy)	US	Private	Vertical wind power solution	http://www.helixwind.com/en/
Iberdrola Renovables SA	Spain	IBR: SM	Wind energy production	http://www.iberdrola.es/
Japan Wind Development Co., Ltd.	Japan	2766: JP	Wind power generation	http://www.jwd.co.jp/english
Juhl Wind	US	JUHL	Wind energy development	http://www.juhlenergy.com/
Kaydon Corporation	US	KDN	Wind equipment components	http://www.kaydon.com/

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WIND GROUP continued:

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
LTA Windpower	Canada	Private	Airborne tethered wind turbine	http://www.ltawind.com/
Makani Power, Inc. (Google)	US	Private	Wind power with high altitude kites	http://www.google.com/makani/
Mitsubishi Heavy Industries Ltd.	Japan	7011: JP	Power generation equipment	http://www.mhi.co.jp/en/products/
Nordex AG	Germany	NDXGK: DB	Wind turbine manufacturer	http://www.nordex-online.com/en
NTS GmbH	Germany	Private	High altitude wind power with kites	https://x-wind.de/en/
Owens Corning Corp.	US	OC	Wind equipment materials	http://www.owenscorning.com/
OwnEnergy, Inc.	US	Private	Wind farm development	http://www.ownenergy.net
PNE Wind AG	Germany	BOQCZ2	Wind farm engineering, planning	http://www.pnewind.com/cms/
Repower Systems AB	Germany	RPWSF	Wind turbine manufacturer	http://www.repower.de/
Siemens AG	Germany	SI	Wind turbines and equipment	http://www.siemens.com/
Sinovel Wind Group, Ltd.	China	601558: Shanghai	Wind turbines and generation systems	http://www.sinovel.com/en/index.aspx
Sky Windpower Corp.	US	Private	Flying electric generators	http://www.skywindpower.com/
SkySails GmbH	Germany	Private	Automated towing kite systems	http://www.skysails.info/english/
Solar Wind Energy, Inc.	US	SWET	Wind energy, solar convection	http://www.cleanwindenergytower.com/
Terna Energy SA	Greece	TENERGY: ATH	Wind, hydroelectric power generation	http://www.terna-energy.gr/
Vestas Wind Systems A/S	Denmark	VWX: DM	Wind turbines and equipment	http://www.vestas.com/
Windspire Energy (Ark Alloy, Inc.)	US	Private	Vertical wind power development	http://www.windspireenergy.com/

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OCEAN GROUP

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
Able Technologies LLC	US	Private	Wave power research	http://www.abletechnologiesllc.com/
Aquamarine Power, Inc.	Scotland	Private	Wave energy devices, technology	http://www.aquamarinepower.com/
Atlantis Resources Ltd.	Singapore	ARLL	Tidal power turbines	http://atlantisresourcesltd.com/
AW-Energy Oy	Finland	Private	Ocean wave energy capture	http://aw-energy.com/
AWS Ocean Energy Ltd.	UK	Private	Wave energy development	http://www.awsocan.com/
Biopower Systems Pty., Ltd.	Australia	Private	Wave, tidal energy power development	http://www.biopowersystems.com/
Blue Energy Canada, Inc.	Canada	Private	Tidal energy turbine	http://www.blueenergy.com/
Carnegie Wave Energy Ltd.	Australia	CWE: ASX	Wave energy technology	http://www.carnegiwave.com/
Checkmate SeaEnergy Ltd.	U.K.	Private	Wave energy devices, equipment	http://www.checkmateuk.com/seaenergy/
DP Energy Ireland Ltd.	Ireland	Private	Tidal power development	http://www.dpenergy.com/
M3 Wave LLC	US	Private	Wave power development	http://www.m3wave.com/
Ocean Energy Ltd.	Ireland	Private	Wave energy technology	http://www.oceanenergy.ie/
Ocean Power Technologies, Inc.	US	OPTT	Wave power generation equipment	http://www.oceanpowertechologies.com/
Ocean Renewable Power Company	US	Private	Tidal power development	http://www.orpc.co/
Ocean Thermal Energy Corporation	US	Private	HVAC with ocean technologies	http://www.otecorporation.com/
Oceanlinx	Australia	Private	Wave energy conversion technology	http://www.oceanlinx.com/
Offshore Wave Energy Ltd.	UK	Private	Wave power generation	http://www.owel.co.uk/
OpenHydro, Inc. (DCNS Company)	Ireland	Private	Tidal power systems	http://www.openhydro.com/home.html
Oscilla Power, Inc.	US	Private	Wave power development	http://oscillapower.com/
OWWE Ltd.	Norway	Private	Wave energy development	http://www.owwe.net/
SDE Energy Ltd.	Israel	Private	Wave energy power plants	http://www.sde.co.il/
Seabased AB	Denmark	Private	Wave energy development	http://www.seabased.com/
Verdant, Inc.	US	Private	Tidal and wave power development	http://www.verdantpower.com/
Waveberg Development Ltd	US	Private	Wave energy technology	http://www.waveberg.com/
WaveBob Ltd.	Ireland	Private	Wave energy technology	http://www.wavebob.com/
Wavestar A/S	Denmark	Private	Energy from ocean waves, swells	http://wavestarenergy.com/

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SOLAR CONCENTRATING GROUP

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
Abengoa Solar, S.A.	Spain	ABG: MC	Mixed power generation, incl. CSP	http://www.abengoasolar.com/
Acciona, S.A.	Spain	BMAD: ANA	Mixed power generation, incl. CSP	http://www.acciona.com/
Amonix, Inc.	US	Private	Solar power concentrators	http://amonix.com/
BrightSource Energy, Inc.	US	Private	Solar thermal power plant systems	http://www.brightsourceenergy.com/
Concentrix-Solar	Germany	Private	Concentrating solar panels	http://www.concentrix-solar.de/
Entech Solar, Inc.	US	ENSL	Solar concentrating panels	http://www.entechsolar.com/
Opel Technologies, Inc.	Canada	OPL: TSX	Solar concentrating panels	http://www.opelinc.com/
Solar Millenium, AG	Germany	S2M: GR	Solar thermal power plant construction	http://www.solarmillennium.de/
Suntrough Energy	US	Private	Mixed power generation	http://suntrough.com/

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HYDROPOWER GROUP

COMPANY	Country	PUBLIC/ PRIVATE	OPERATIONS	WEB SITE
Advanced Hydro Solutions	US	Private	Hydroelectric turbines	http://www.advancedhydrosolutions.com/
AECOM	US	ACM	Professional engineering	http://www.aecom.com/
Alden Research Laboratory, Inc.	US	Private	Fluids flow engineering	http://www.aldenlab.com/
American Governor Co.	US	Private	Governor equipment	http://www.americangovernor.com/
China Gezhouba Group Co.	China	Private	Hydroelectric dam construction	http://www.gzbgj.com/english/
Hydro Consulting & Maint. Services	US	Private	hydro consulting	http://www.hydro911.com/
Hydro Power Equipment Ltd.	S. Africa	Private	Hydro energy applications	http://www.hpesa.com/
Mavel	Czech Rep	Private	Turbine engineering	http://www.mavel.cz/home.html
Natel Energy, Inc.	US	Private	Hydro power engineering	http://www.natelenergy.com/
Sinohydro	China	Private	Hydroelectric dam construction	http://www.sinohydro.com/
Toshiba	Japan	Private	Hydroelectric equipment	http://www3.toshiba.co.jp/
Voith Hydro Services, Inc.	US	Private	Turbine maintenance, repair	http://www.voithhydro.com/index_en.php
Weir Group Plc	UK	WEIGF	Hydroelectric turbines, pumps	http://www.weirpowerindustrial.com/

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