

1) Family number: 72953526 (US10184446B)

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Title: WIND TURBINE SYSTEM

Abstract: A wind turbine system utilizes an air deflector configured inside of an air scoop extending along a circular track around the air deflector to capture the prevailing wind and direct it up through an air rotor. The air rotor is configured with a plurality of fins in the air rotor channel and the flow of air past the fins spins the air rotor. A rotor of an electrical generator is coupled with the air rotor and spins with respect to a stator, fixed to the wind turbine frame, to produce electricity. The air scoop rotates about the wind turbine as a function of the prevailing wind and may be controlled by a controller that is coupled with one or more of the wheels of the air scoop. A plurality of baffles may be configured under the fins to direct the air and over the fins.

Classifications:

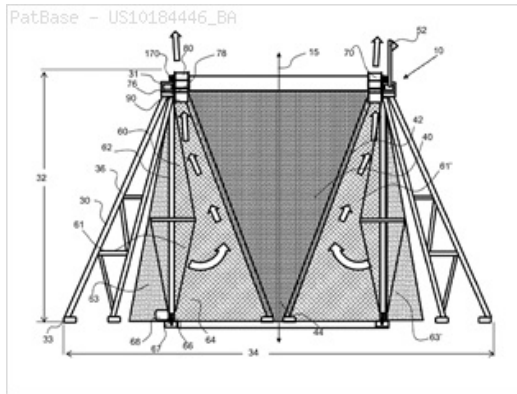
International (IPC 8-9): F03D1/04 F03D7/02 F03D9/00 F03D9/25

F03D9/35 H02K7/18 H02P9/04 (Advanced/Invention)

CPC: F03D1/04 F03D9/35 F05B2210/402 F05B2220/706

F05B2240/121 F05B2240/131 F05B2270/321 H02K7/183

H02K2201/12 F03D7/0224 F03D9/25 F05B2240/211 F05B2280/6001



Family:

Publication number	Publication date	Application number	Application date
US10184446 BA	20190122	US20180987806	20180523
WO19226203 A1	20191128	WO2019US14428	20190121

Priority:

US20180987806 20180523

Probable Assignee: SCHUFF DAVID A

Assignee(s): (std): SCHUFF DAVID A

Inventor(s): (std): SCHUFF DAVID A ; SCHUFF DAVID

Agent(s): INVENTION TO PATENT SERVICES; HOBSON ALEX

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

2) Family number: 74104220 (US2019120206A)

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Title: MULTI AXES TURNABLE, WIND TURBINE, AND TOWER FAN

Abstract: A Multi Axes Turntable, Wind Turbine, and Tower Fan of the present invention is a compilation of separate, individual, and related inventions for a Multi Axes Turntable, a Multi Axes Wind Turbine, and a Multi Axes Tower Fan, where: a Multi Axes Turntable consists of multiple (one or more) planet rotors in a fixed rotational orientation relative to and in rotation around a stationary sun rotor; and a Multi Axes Wind Turbine and Tower Fan are each a Multi Axes Turntable in rotations and reversed rotations, respectively, with mounted pairs of planet and sun airfoils. Planet airfoils, been in a fixed rotational orientation relative to and in rotation around a stationary sun rotor, are always facing against applied or toward propelled generally straight flowing wind. Different from planet airfoils, sun airfoils are in radial alignment to and in rotation around the sun rotor, and are rotated by generally straight flowing applied wind from any direction, but they rotate from been powered to propel circular swirling wind around the stationary sun rotor. In combination, paired planet and sun airfoils alternate as wind shields in rotations around a stationary sun rotor to greatly reduce power lost or lost volume of propelled wind. A Multi Axes Wind Turbine in rotation generates a net of substantially more power than power lost from generally straight flowing applied wind; while a Multi Axes Tower Fan, in reverse rotation and been powered, propels a net of substantially greater volume of generally straight flowing propelled wind than wind volume propelled in reverse. A Multi Axes Wind Turbine and Tower Fan are reversible, by having the same basic Multi Axes Turntable mounted with same paired planet and sun airfoils, but reversed in rotations, and with obvious differences in power generators, motors, and control systems. This reversible feature is unknown in current non shielded or ducted VAWTs and tower fans. Compared to current VAWTs and tower fans, a Multi Axes Wind Turbine and Tower Fan are inherently more power efficient due to planet airfoils having a fixed rotational orientation always facing against or toward generally straight flowing applied or propelled wind.

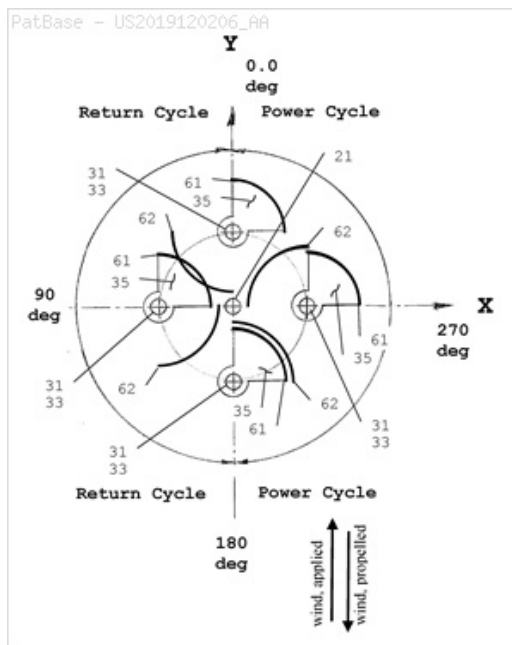
Classifications:

International (IPC 8-9): F03D15/00 F03D3/02

F03D3/06 (Advanced/Invention)

CPC: F03D3/068 F03D15/00 F03D3/02 F05B2260/505

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
US2019120206 AA	20190425	US20170790004	20171022
US10473087 BB	20191112	US20170790004	20171022

Priority:

US20170790004 20171022

Probable Assignee:

PUL GEORGE

Assignee(s): (std):

PUL GEORGE

Inventor(s): (std):

PUL GEORGE

3) Family number: 73729872 (US2019093627A)

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Title: WIND POWER GENERATION SYSTEM

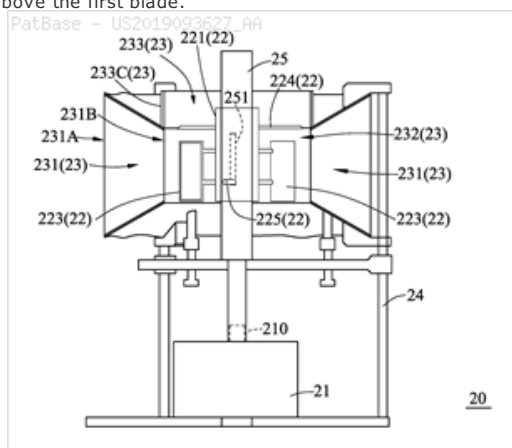
Abstract: The wind power generation system comprises a generator, a shaft, at least one leaf group and at least one wind-guiding structure. The generator includes a rotor, and the shaft is connected to the rotor. The leaf group includes a movable barrel, at least one first blade, at least one propeller blade, a plurality of pressurized channels, a first vortex chamber and a decompression chamber. The movable barrel is movably sleeved on the shaft. The first blade is connected to the activity barred. The propeller blade is connected to the movable barrel and above the first blade.

Classifications:

International (IPC 8-9): F03D3/04 F03D3/06 F03D7/06 F03D9/00 F03D9/25 (Advanced/Invention)

CPC: F03D3/0427 F03D9/25 F05B2240/10 F05B2240/211 F03D3/062 F03D7/06 F05B2240/133 F05B2270/1011

US: 1/1



Family:

Publication number	Publication date	Application number	Application date
TW201915313 A	20190416	TW20170132709	20170925
US2019093627 AA	20190328	US20180880548	20180126
US10337492 BB	20190702	US20180880548	20180126

Priority:

TW20170132709 20170925

Probable Assignee:

WANG SHUN SHEN

Assignee(s): (std):

WANG SHUN SHEN

Inventor(s): (std):

WANG SHUN SHEN

Title: WIND POWER INSTALLATION

Abstract: The invention relates to wind power engineering and is intended for converting the kinetic energy of the wind into mechanical energy of the rotation of a rotor for subsequent conversion into electrical energy. A wind power installation comprises a support frame with a rotor disposed thereon, and a blade system attached to the rotor. The rotor is configured for rotation about a vertical axis and is functionally connected to an electric generator. The support frame is configured for attachment to at least three radially arranged structures. The area of one blade of the blade system is equal to between 20 and 200sq. m. The wind power installation can comprise additional blade systems arranged one above another on the rotor. Attaching the frame between three radially arranged structures results in greater rigidity and robustness of the installation, thus making it possible to use blade systems with a larger blade area and to arrange several blade systems on one rotor. The air passage created by the three radially arranged structures allows the formation of enhanced wind flows in any wind direction. The technical result of the claimed invention is an increase in the operating efficiency of the wind power installation.

Classifications:

International (IPC 8-9): F03D3/00 F03D9/00 F03D9/34

F03D9/45 (Advanced/Invention)

CPC: F03D9/00 F03D3/00 Y02B10/30 Y02E10/74 F03D9/34 F03D9/45

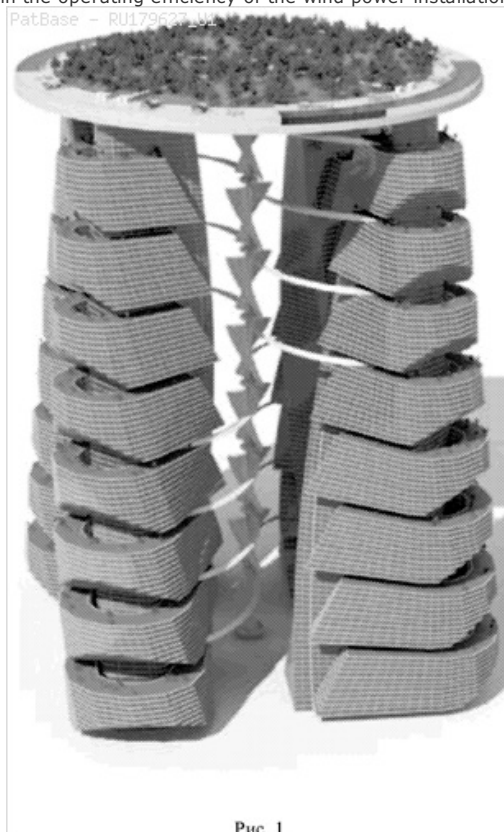


Рис. 1

Family:

Publication number	Publication date	Application number	Application date
RU179627 U1	20180521	RU20170116709U	20170515
WO18212683 A1	20181122	WO2018RU00304	20180514

Priority:

RU20170116709 20170515 RU20170116709U 20170515

Probable Assignee: TYAGLIN DENIS VALENTINOVICH

Assignee(s): (std): TYAGLIN DENIS VALENTINOVICH

Assignee(s): TJAGLIN DENIS VALENTINOVICH

Inventor(s): (std): TYAGLIN DENIS VALENTINOVICH

Agent(s): BOLOTOVA ALEKSANDRA YUREVNA

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JO JP KE KG KH KM KN KP KR KW KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

5) Family number: 70562659 (US2018209402A)

Title: SAIL BASED WIND ENERGY SYSTEM

Abstract: An invention is presented which greatly improves the potential for individual home wind energy conversion. The system utilizes conventional sail technology to greatly increase the wind energy capture at modest cost. The use of a large area collector for wind energy, such as a sail, allows the conversion of wind kinetic energy into pressure to be further converted into mechanical or electrical energy in a much smaller turbine than in the conventional wind mill configuration. This technology encourages the distributed generation of green and renewable wind energy, complementing solar generation and the grid tie box, toward making the residential home energy neutral.

Classifications:

International (IPC 8-9): F03D1/04 F03D3/00 F03D3/04 F03D7/06

F03D9/00 F03D9/25 F03D9/35 (Advanced/Invention);

F03D9/00 (Advanced/Non-invention)

CPC: F03D3/0427 F03D3/005 F05B2240/9112 F03D7/06 F03D3/0418

F03D9/255 F03D9/007 F03D1/04 F03D9/35 Y02B10/30 Y02E10/728

Y02E10/74

US: 1/1 415/4.1



Priority:

Probable Assignee: JONES PARKER EGAN

Assignee(s): (std): JONES PARKER EGAN ; SHAKESPEARE WALTER JEFFREY

Inventor(s): (std): SHAKESPEARE WALTER JEFFREY ; JONES PARKER EGAN

Agent(s): LIN CHEN CHI

6) Family number: 69737660 (US2018135599A)

Title: WIND TURBINE

Abstract: A vertical axis wind turbine having a platform and a roof forming a housing for a vertical axis rotor and a stator. Stator vanes extend between the platform and the roof. The stator vanes and guiding surfaces on the platform and the roof define inlets and airflow paths for guiding wind into the inner chamber of the housing, where the wind powers a vertical axis rotor that is rotatably supported on the platform. The stator vanes are segmented with the trailing edges dynamically adjusting the diameter of the inner chamber in response to changing wind and rotor speed conditions. A shaft extending from the rotor can be connected to a generator connected to a power grid. The roof can support a solar panel connected to the power grid.

Classifications:

International (IPC 8-9): F03D3/00 F03D3/04 F03D3/06
F03D7/06 (Advanced/Invention)

CPC: F03D3/0418 F03D3/061 F05B2240/211 Y02B10/30 Y02E10/74
F03D3/005 F03D7/06 F05B2220/706 F05B2240/30 F05B2250/25

US: 1/1 415/4.2



Priority:

US20160374847P 20160814 US20170672388 20170809

Probable Assignee: CBC LLC

Assignee(s): (std): CBC LLC

Inventor(s): (std): BAXTER JR ROBERT

Inventor(s): BAXTER JR

Agent(s): BARLOW JOSEPHS AND HOLMES LTD

Title: WIND TOWER

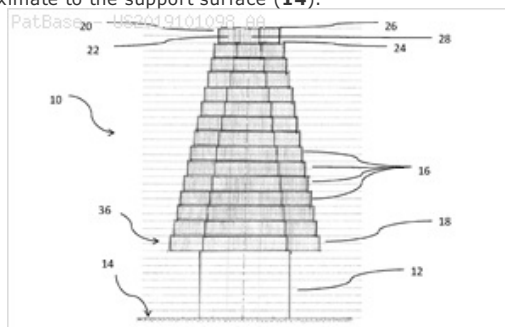
Abstract: The present invention relates to a wind tower (10) for delivering wind flow to a turbine. The wind tower (10) including includes a support structure (12) mounted to a support surface (14) and a wind intake section (16) rotatably mounted to the support structure (12) and elevated with respect to the support surface (14). The intake section (16) includes a plurality of internal passageways (32) extending between a plurality of wind-facing inlets (22) and a plurality of outlets (34). The plurality of inlets (22) are orientated for concurrently receiving an oncoming wind-flow W. Each of the inlets (22) are in fluid communication with one of the outlets 34 via one of the passageways (32). The wind tower (10) further includes an output passageway (42) for collecting wind flow W from the plurality of outlets (34). The output passageway (42) is in fluid communication with the outlets (34) and extends downwardly from the intake section (16) toward the support surface (14) for delivering wind flow W to a turbine located at or proximate to the support surface (14).

Classifications:

International (IPC 8-9): F03D1/04 F03D13/20 F03D3/04 F03D9/34 F03D9/35 F03D9/41 (Advanced/Invention)

CPC: F03D1/04 F03D9/35 F05B2240/131 F05B2240/133 Y02E10/728 F03D9/25 F03D13/22

US: 1/1

**Family:**

Publication number	Publication date	Application number	Application date
AU2017239036 AA	20180315	AU20170239036	20170308
CN108884810 A	20181123	CN201780019026	20170308
EP3433489 A1	20190130	EP20170769181	20170308
EP3433489 A4	20190327	EP20170769181	20170308
IN201817038301 A	20190104	IN201817038301	20181009
JP2019509429 T2	20190404	JP20180549357T	20170308
US2019101098 AA	20190404	US20170086545	20170308
WO17161412 A1	20170928	WO2017AU50201	20170308

Priority:

AU20160901049 20160321 WO2017AU50201 20170308

Probable Assignee: N A

Assignee(s): (std): PUTA VACLAV ; PUTA VCLAV

Assignee(s): N A ; PUTA V CLAV

Inventor(s): (std): PUTA VACLAV ; PUTA VCLAV

Inventor(s): PUTA V CLAV

Agent(s): PHILLIPS ORMONDE FITZPATRICK; GRIFFITH HACK; WARD DAVID IAN; SAEGUSA AND PARTNERS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: THERMAL WIND TURBINES

Abstract: Thermal wind turbines capable of capturing energy from both blowing wind, and rising air heated by sunlight or another source of heat. The thermal wind turbine is equipped with two turbines, one optimized for receiving rising air, and the other optimized for receiving lateral winds. These turbines are installed into a housing designed to funnel air effectively through both turbines. The housings equipped with adjustable louvers for optimizing flow through the turbine system as wind and heat conditions vary.

Classifications:

International (IPC 8-9): F03D1/02 F03D1/04

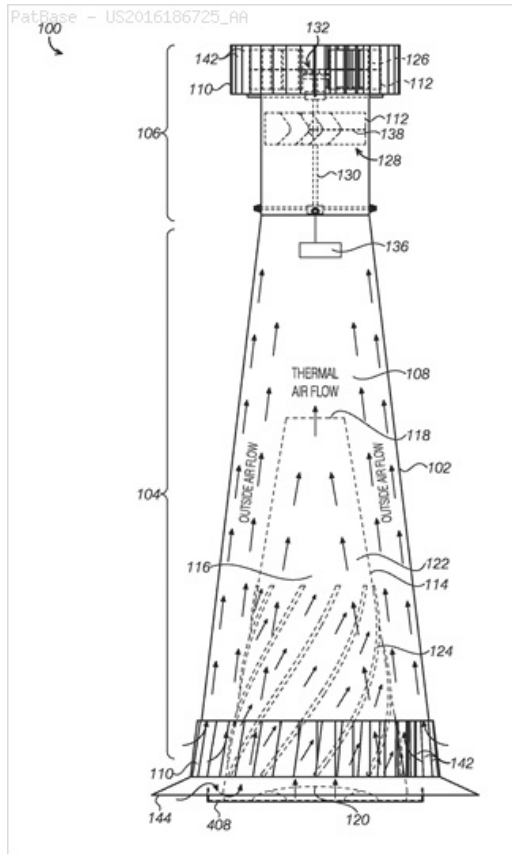
F03D9/00 (Advanced/Invention)

CPC: F05B2240/131 F05B2240/132 F05B2260/24 Y02E10/465

Y02E10/72 F03D9/35 F03D1/025 F03D1/04 F03D9/007 F03D9/25

F03D9/37 F03D9/39

US: 60/641.12



Family:

Publication number	Publication date	Application number	Application date
US2016186725 AA	20160630	US20160061675	20160304

Priority:

US20160061675 20160304

Probable Assignee:

DOFREDO NESTOR

Assignee(s): (std):

DOFREDO NESTOR

Inventor(s): (std):

DOFREDO NESTOR

9) Family number: 66711864 (US2017241406A)

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Title: INTERNAL MOUNTED CYLINDRICAL TURBINE FOR ELECTRICITY GENERATION USING EXTERIOR FLUSH AND SCOOP INTAKES

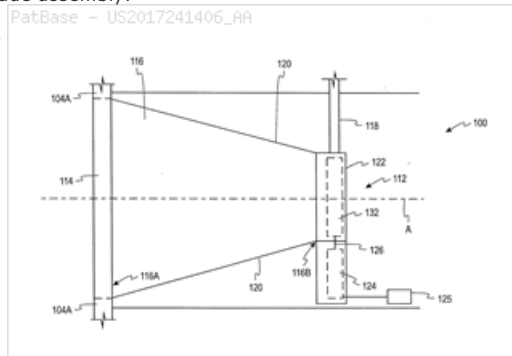
Abstract: A method and system for generating electrical energy from wind are described. In an example, a method includes capturing wind in an intake on an exterior surface of a structure. The method also includes directing, via a duct, the wind from the intake to a centrifugal fan and, while directing the wind from the intake to the centrifugal fan, compressing and accelerating the wind in the duct. The method further includes receiving, in the centrifugal fan, the wind from the duct and rotating, via the received wind, a fan blade assembly in the centrifugal fan. The method still further includes generating electrical energy, via a generator, based on the rotation of the fan blade assembly.

Classifications:

International (IPC 8-9): B64D41/00 F01D15/10 F03D13/20 F03D3/04 F03D3/06 F03D9/00 F03D9/11 F03D9/25 F03D9/34 F03D9/45 H02P9/00 (Advanced/Invention)

CPC: F03D3/04 F03D3/061 F03D9/00 F03D9/11 F03D9/34 F03D9/45 F03D13/20 F05B2210/403 F05B2240/13 F05B2240/9112 F03D9/25 Y02B10/30 Y02E10/725 Y02E10/728

US: 1/1 290/55



Family:

Publication number	Publication date	Application number	Application date
BR102017003156 A2	20170822	BR20171003156	20170216
CA2954987 AA	20170818	CA20172954987	20170113
CN107091204 A	20170825	CN201710085003	20170217
DE602017006224 D1	20190912	DE201760006224T	20170216
EP3208461 A1	20170823	EP20170156458	20170216
EP3208461 B1	20190821	EP20170156458	20170216
US2017241406 AA	20170824	US20160047324	20160218

Priority:

US20160047324 20160218 EP20170156458 20170216

Probable Assignee: BOEING CO**Assignee(s):** (std): BOEING CO**Assignee(s):** BOEING CO CHICAGO ; COFFMAN MATHEW A**Inventor(s):** (std): COFFMAN MATHEW A ; MATHEW A COFFMAN**Inventor(s):** COFFMAN MATHEW A BERKELEY**Agent(s):** SMART AND BIGGAR; HOWSON RICHARD GB; HOWSON RICHARD GILES BENTHAM; MCDONNELL BOEHNEN HULBERT AND BERGHOFF LLP**Designated states:** AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR**10) Family number: 66221762 (US2019085819A)**

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Title: MULTIFUNCTIONAL WIND TURBINE / HYDRO TURBINE AND THEIR ASSEMBLY FOR MULTIPLE APPLICATIONS AND USES

Abstract: The present invention concerns a device transforming the energy from fluid flows into mechanical and electrical energy. The sources of primary energy are wind for the wind turbine version, or hydraulic flows such as marine or river currents, waves and tides, etc. for the water or hydro turbine version. The device consists of a fluid guidance system (1), a rotor comprising at least two regularly arranged blades (2), a protective structure (4), a structuring framework (6), a top box (5) and a bottom box (7). The device will play the role not only of wind turbine/water turbine but also of noise barriers, wave barriers, safety barriers and wireless electrical charging systems along the transport networks. This invention is intended for companies or organizations producing electricity and individuals wishing to produce electricity.

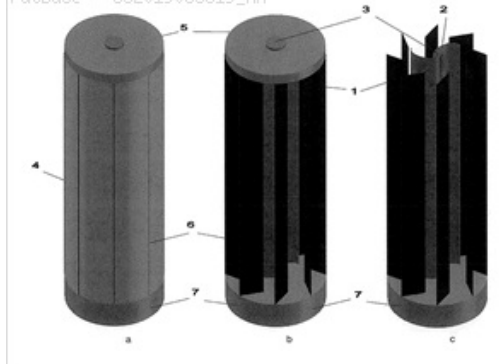
Classifications:

International (IPC 8-9): B60L11/18 F03B17/00 F03B17/06 F03D3/00 F03D3/02 F03D3/04 F03D3/06 F03D80/00 F03D9/00 F03D9/11 F03D9/46 (Advanced/Invention); F03D3/02 (Advanced/Non-invention)

CPC: Y02E10/74 F05B2240/917 Y02B10/30 Y02E10/28 Y02E10/728 F03D3/005 F03D3/065 F03D3/061 F03D80/00 F03D9/11 B60L2200/32 F03D3/0418 F03B17/063 F03D3/02 F03D9/46 F05B2210/16 F05B2240/12 F05B2240/211 F05B2240/40 F05B2240/9113

US: 1/1

PatBase - US2019085819_AA

**Family:**

Publication number	Publication date	Application number	Application date
AU2017218698 AA	20180823	AU20170218698	20170116
CA3024410 AA	20181113	CA20173024410	20170116
EP3414452 A1	20181219	EP20170701930	20170116
FR3046204 A1	20170630	FR20160000226	20160210
IN201817029618 A	20181102	IN201817029618	20180807
US2019085819 AA	20190321	US20170073796	20170116
WO17137858 A1	20170817	WO20171B50218	20170116

Priority:

FR20160000226 20160210 WO20171B50218 20170116

Probable Assignee: TECHSAFE GLOBAL**Assignee(s):** (std): TECHSAFE GLOBAL**Assignee(s):** VU TUAN NGHIEM**Inventor(s):** (std): VU TUAN NGHIEM**Inventor(s):** TUAN NGHIEM VU**Agent(s):** TECHSAFE GLOBAL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DJ DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KH KM KN KP KR KW KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

11) Family number: 66150379 (US2017175706A)

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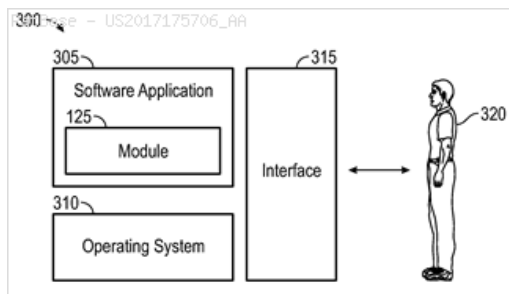
Title: PRESSURE AND VACUUM ASSISTED VERTICAL AXIS WIND TURBINES

Abstract: A system and apparatus for wind energy conversion comprising a Savonius style rotor attached to a drive shaft; a first airfoil configured to block air pressure along a return side of the rotor; an airfoil cowling configured to direct blocked air on the return side of the rotor to intersect with air on the drive side of the rotor; at least one vacuum compensator configured on a top edge of the first airfoil wherein the at least one vacuum compensator redirects the blocked air on the return side of the rotor onto the driven side of the rotor; an anemometer; a wind direction indicator; and a computer system operatively connected to the roller and track assembly wherein the computer system adjusts the orientation of the rotor according to a wind speed measured by the anemometer and a wind direction measured by the wind direction indicator.

Classifications:

International (IPC 8-9): F03D3/00 F03D3/04 F03D3/06 F03D7/06 F03D9/00 H02K7/18 (Advanced/Invention)

CPC: F03D3/005 F03D3/0445 F03D7/06 F05B2240/213 F05B2270/32 H02K7/183 Y02E10/74
US: 1/1 290/44



Family:

Publication number	Publication date	Application number	Application date
US2017175706 AA	20170622	US20160375971	20161212
US10487799 BB	20191126	US20160375971	20161212

Priority:

US20150269275P 20151218 US20160375971 20161212

Probable Assignee: PENDERGRASS DAN

Assignee(s): (std): PENDERGRASS DAN

Inventor(s): (std): PENDERGRASS DAN

Agent(s): LOZA AND LOZA LLP; SOULES KEVIN L

12) Family number: 64987366 (WO17029557A3)

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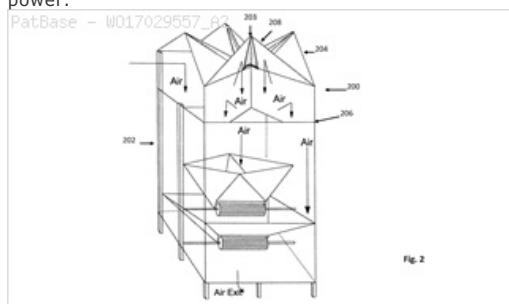
Title: SCALABLE WIND ENERGY SYSTEMS

Abstract: A wind tower harvests wind energy to produce electricity using four major components: (a) a tower, (b) a windcatcher at the top of the tower, (c) one or more diffusers, and (d) one or more wind generators. An inlet with four quadrant peaks, mounted at the top of the wind tower, is shaped to capture an increased volume of air flow and divert this air flow down into the channel or well of the wind tower, thus increasing output of the generator. A shaped diffuser directs the downward air flow in the well onto blades on one side of a drum turbine's axis of rotation, thus rotating the turbine. Rotation of the turbine rotates a generator attached to the turbine to generate power.

Classifications:

International (IPC 8-9): F03D1/04 F03D13/20 F03D3/04 F03D9/35 (Advanced/Invention)

CPC: F03D9/35 F03D3/002 F03D3/0427 Y02E10/728 Y02E10/74



Family:

Publication number	Publication date	Application number	Application date
WO17029557 A2	20170223	WO20161B01375	20160819
WO17029557 A3	20170511	WO20161B01375	20160819

Priority:

US20150206959P 20150819

Probable Assignee: BAHARI ENERGY LLC

Assignee(s): (std): BAHARI ENERGY LLC

Inventor(s): (std): BAHARI HABIB

Agent(s): SMITH EVAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

13) Family number: 59991278 (US2016097374A)

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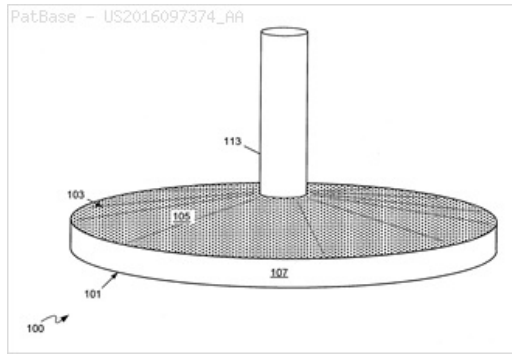
Title: TRANSPIRED SOLAR COLLECTOR CHIMNEY TOWER

Abstract: A transpired solar collector chimney tower is provided. Specifically, disclosed herein is a transpired solar air heating collector device comprising: a heat absorbing roof; an interior space adjacent the heat absorbing roof; and, a plurality of air inlet openings distributed over the heat absorbing roof and configured to allow ambient air to flow from outside the heat absorbing roof into the interior space, a porosity of the heat absorbing roof due to the plurality of air inlet openings being in a range of about 0.25 percent open area to about 5 percent open area; a chimney tower extending from the transpired solar air heating collector device and connected to the interior space such that heated air in the interior space flows from the interior space through the chimney tower; and, one or more turbines positioned on a path of airflow from the interior space through the chimney tower.

Classifications:

International (IPC 8-9): F03D1/04 F03D9/00 F03D9/37 F03G6/00

F03G6/04 F24J2/00 F24J2/04 F24J2/28 F24J2/46 H02K7/18 H02P9/04 H02S10/10 H02S40/44 (Advanced/Invention);
F22B1/00 (Advanced/Non-invention)
CPC: H02S40/44 F03D9/11 F03D9/255 H02S10/12 F24S10/80 F24S20/67 F03D9/25 F03D9/37 F03G6/045 F05B2250/501 F05B2260/24 F05B2280/2001 F22B1/006 Y02B10/20 Y02B10/30 Y02B10/70 Y02E10/465 Y02E10/725 Y02E10/728 H02K7/1823
US: 1/1 136/248 60/641.12



Family:

Publication number	Publication date	Application number	Application date
AU2014265033 AA	20160421	AU20140265033	20141119
CA2905981 AA	20160402	CA20152905981	20150925
CN106152546 A	20161123	CN201510631898	20150929
EP3002454 A1	20160406	EP20140191384	20141031
US2016097374 AA	20160407	US20150740389	20150616
US9097241 BA	20150804	US20140504740	20141002
US9334853 BB	20160510	US20150740389	20150616

Priority:

US20140504740 20141002 US20150740389 20150616

Probable Assignee: HOLLYCK SOLAR SYSTEMS LTD

Assignee(s): (std): HOLLYCK SOLAR SYSTEMS LTD

Assignee(s): ERYENER DOGAN ; HOLLYCK JOHN C

Inventor(s): (std): ERYENER DOGAN ; HOLLYCK JOHN C

Agent(s): LESICAR MAYNARD ANDREWS PTY LTD; PERRY AND CURRIER; RENTSCH PARTNER AG; PERRY AND CURRIER INC

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

14) Family number: 61122970 (US2015361953A)

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Title: HORIZONTALLY CHANNLED VERTICAL AXIS WIND TURBINE

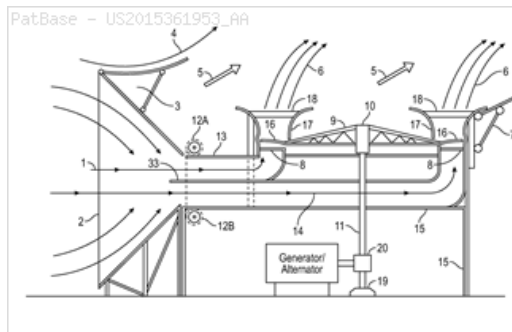
Abstract: A horizontally channeled vertical axis wind turbine for electrical power generation is provided. The wind turbine may collect ambient wind speed from between 0-+/-50 ft. above ground level. The collected wind is accelerated and concentrated within horizontal laminar flow channels which direct the accelerated and concentrated wind up and through to a smaller exhaust and a series of turbine blades, located on a vertical axis turbine and shaft, which provides power to an electrical generator or alternator located below the wind turbine. The horizontally channeled vertical axis wind turbine may comprise an ambient wind scoop structure, a horizontal laminar flow channel support structure and a self-supporting turbine disk structure. The ambient wind scoop structure may gather ambient wind and then concentrate and accelerate the wind into two (2) horizontal laminar air flow channels in the horizontal laminar flow channel support structure which is supported by the self-supporting turbine disk structure.

Classifications:

International (IPC 8-9): F03D11/00 F03D11/02 F03D3/00 F03D3/04 F03D3/06 F03D7/00 F03D9/00 (Advanced/Invention)

CPC: F03D3/005 F05B2240/13 F03D15/00 Y02E10/72 Y02E10/74 F03D3/04 F03D1/04 F03D9/25 F03D15/10 F03D80/70

US: 415/148 415/151 416/189



Family:

Publication number	Publication date	Application number	Application date
US2015361953 AA	20151217	US20150738773	20150612
WO15192102 A1	20151217	WO2015US35695	20150612

Priority:

US20140011473P 20140612 US20150738773 20150612

Probable Assignee: JORY CASSANDRA

Assignee(s): (std): IMP WIND CORP

Assignee(s): JORY CASSANDRA

Inventor(s): (std): JORY CASSANDRA ; FREESE RONALD EUGENE ; JORY CASSANDRA ANNE

Agent(s): EISENHUT HEIDI L

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CFCG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: POWER GENERATING ASSEMBLY

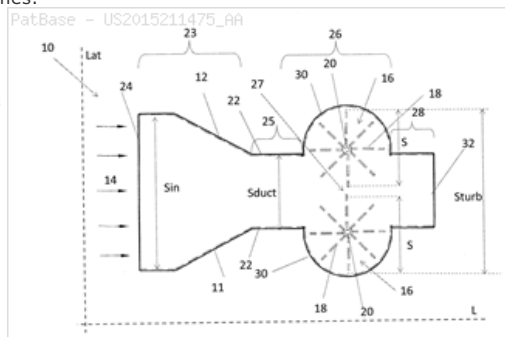
Abstract: A power generating assembly for generating electricity from a flowing medium includes an enclosure. The enclosure includes an elongated duct along which the medium flows. The duct defines a longitudinal direction and a lateral direction. The duct includes a converging inlet nozzle having a span in the lateral direction. At least one pair of turbines is arranged within and on either side of the duct in the lateral direction. The turbines are rotated in opposite directions by the flowing medium. The turbines have a span in the lateral direction. The span of the converging inlet nozzle is at least the span of the at least one pair of turbines. A generator is interconnected with each turbine of the at least one pair of turbines via a drive means such that the generator rotates with rotation of the turbines.

Classifications:

International (IPC 8-9): F03B1/00 F03B11/00 F03B13/10 F03B17/06 F03B3/04 F03B3/18 F03D3/02 F03D3/04 F03D9/00 F03D9/25 H02K7/18 (Advanced/Invention)

CPC: F03B17/063 F03D9/255 F05B2210/16 F05B2240/133 Y02E10/28 Y02E10/74 F03D3/02 F03D3/0427 F03D3/0463 F03D9/11 F03D9/32 F03B3/16

US: 290/55 415/64

**Family:**

Publication number	Publication date	Application number	Application date
US2015211475 AA	20150730	US20140568665	20141212
US9651018 BB	20170516	US20140568665	20141212
WO15113159 A1	20150806	WO2015CA50068	20150129

Priority:

US20140933554P 20140130 US20140568665 20141212

Probable Assignee: VORIAS MIHALIS

Assignee(s): (std): VORIAS MIHALIS

Inventor(s): (std): VORIAS MIHALIS

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

Title: POWER PLANT BASED ON SOLAR AND WIND ENERGY

Abstract: The invention is related to the field of alternative electric power sources and is designed for power generation using both wind and solar energy. The objective of the invention is generation of electric power by simultaneous use of wind and solar energy by way of simplification of the design, reduction of labour intensity in maintenance, and reduction of the cost due to elimination of expensive silicon solar cells.

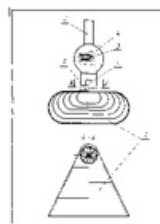
Classifications:

International (IPC 8-9): F03D1/00 F03D1/04 F03G6/06 (Advanced/Invention)

CPC: Y02E10/46 Y02E10/72

SCIENCE & THE FUTURE

2. Установить на Π_1 следующие три, что λ критическое температурное значение воды и критическое значение параметра.
3. Установить до Π_1 следующие три, что λ является либо критическим, либо λ принадлежит к области с биологическим критическим значением λ и критическим, рассматривая в зависимости от значения λ критическое.



 Estadística matemática para ingeniería, HJ B
Jocely, 1998(3). México: Itel y Universidad de...

23

Publication number	Publication date	Application number	Application date
EA026798 B1	20170531	EA20140000465	20140415
EA201400465 A1	20150331	EA20140000465	20140415

Probable Assignee:	ILISHOV OLEG PETROVICH
Assignee(s): (std)	ILISHOV OLEG PETROVICH
Assignee(s):	OLEG ILYUK
Inventor(s): (std)	ILISHOV OLEG PETROVICH

International (IPC 8-9): F03D1/04 F03D1/06 F03D13/20 F03D15/10
F03D80/70 F03D9/00 F03D9/25 (Advanced/Invention);
F03D9/11 (Advanced/Non-invention)
CPC: F03D15/10 F03D1/04 F03D9/11 F03D9/25 F03D13/20
F03D80/70 F05B2240/13 F05B2260/402 F05B2260/4021 Y02E10/721
US: 415/208.1

Publication number	Publication date	Application number	Application date
US2016169193 AA	20160616	US20160043822	20160215
US10151302 BB	20181211	US20160043822	20160215
WO15038567 A1	20150319	WO2014US54884	20140910

US20160043822 20160215

Probable Assignee: UNIV ARIZONA STATE

Assignee(s): (std): CAMPTON CALAHAN B ; TAKAHASHI TIMOTHY T ; UNIV ARIZONA STATE ; WOOD DONALD L

Assignee(s): ARIZONA BOARD OF REGENTS ON BEHALF OF ARIZONA STATE UNIV

Inventor(s): (std): TAKAHASHI TIMOTHY T ; WOOD DONALD L ; CAMPTON CALAHAN B

Agent(s): SNELL AND WILMER LLP; RICKS RYAN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

18) Family number: 58178704 (US2015000578A)

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Title: TWIN ASYMMETRICAL WING SAIL RIG

Abstract: The problems associated with rotating a wing sail around a stayed rig mast; changing the airfoil shape of a wing sail on different tacks; and reefing a wing sail may be solved by using an A-frame mast with port and starboard mast extrusions for supporting two asymmetrical wing sails.

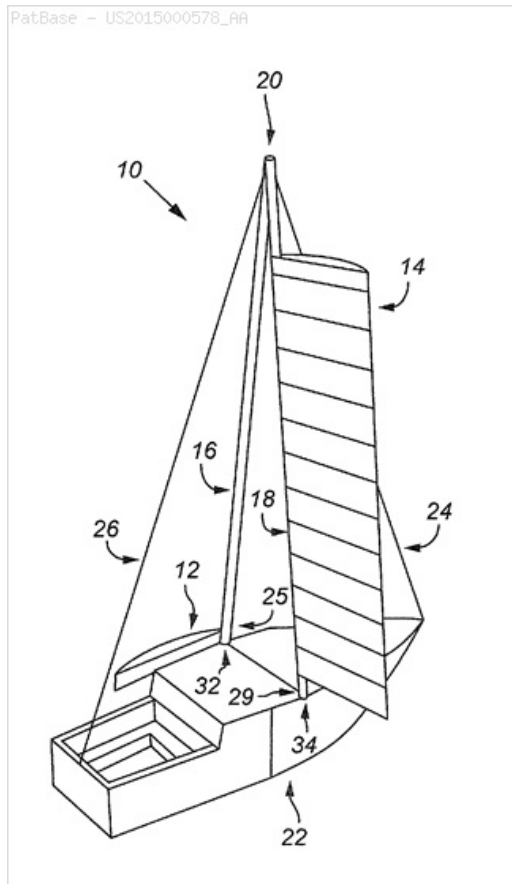
Classifications:

International (IPC 8-9): B63B15/00 B63B15/02

B63H9/06 (Advanced/Invention)

CPC: B63B2015/0025 B63B15/0083 B63H9/0607

US: 114/39.29



Family:

Publication number	Publication date	Application number	Application date
US2015000578 AA	20150101	US20140306394	20140617

Priority:

US20130836523P 20130618 US20140306394 20140617

Probable Assignee: STREBE MATTHEW BRENT

Assignee(s): (std): STREBE MATTHEW BRENT ; WEINER ERIC SAMUEL

Inventor(s): (std): WEINER ERIC SAMUEL ; STREBE MATTHEW BRENT

19) Family number: 57561786 (US2014298806A)

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Title: HYBRID THERMAL POWER AND DESALINATION APPARATUS AND METHODS

Abstract: Rankine Cycle power generation facility having a plurality of thermal inputs and at least one heat sink, where the heat sink includes a thermal chimney or a natural convective cooling tower. In a preferred embodiment, the power facility generates electricity and/or fresh water with a zero carbon footprint, such as by using a combination of solar and geothermal heating to drive a Rankine Cycle heat engine. In one embodiment, a thermal stack is mounted in the base of the thermal chimney, the thermal stack for using waste heat from the plurality of thermal inputs to drive a natural convective flow of air in the thermal chimney, the convective flow having sufficient momentum to drive additional power generation in an air turbine mounted in the chimney and to drive an evaporative cycle for concentratively extracting fresh water from geothermal brines.

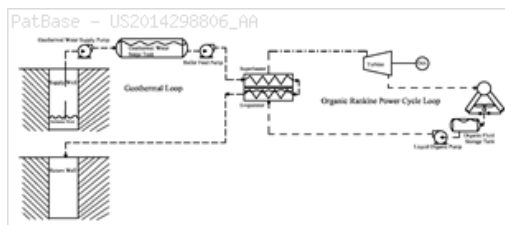
Classifications:

International (IPC 8-9): C02F1/16 C10G21/08 C10G7/00 F01K19/00

F01K23/06 F01K23/10 F01K25/08 F02C1/00 F02C3/22

F03G7/04 (Advanced/Invention)

CPC: F01K23/10 F02C1/007 F01K25/14 C02F1/16 C10G21/08
C10G7/00 F02C3/22 F16T1/00 C02F2303/10 F03G6/045 F03G6/067
F01K23/064 Y02A20/128 Y02E10/465 Y02W10/30 Y02W10/37
F01K25/08 F03G7/04 Y02E10/10 F01K19/00
US: 1/1 60/641.2 60/645



Family:

Publication number	Publication date	Application number	Application date
US2014298806 AA	20141009	US20140247226	20140407
US2018094548 AA	20180405	US20170831356	20171204
US9932970 BA	20180403	US20170831356	20171204

Priority:

US20130809398P 20130407 US20140247226 20140407 US20170831356 20171204

Probable Assignee:

JETER DONALD W

Assignee(s): (std):

JETER DONALD W

Inventor(s): (std):

JETER DONALD W

Agent(s):

LAMBERT PATENT SRVS; KAL K

20) Family number: 57484441 (US2016053743A)

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Title: SYSTEM COMPRISING A VERTICAL TURBINE WITH FLOW GUIDES

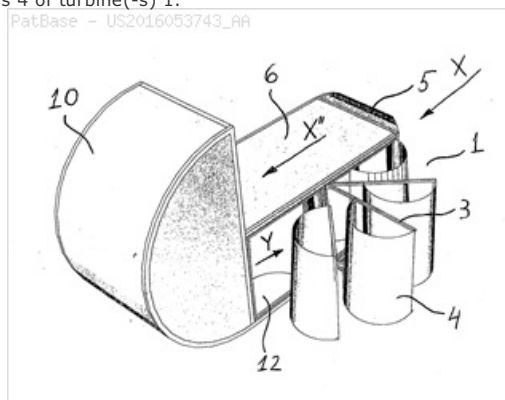
Abstract: Invention refers to vertical electrical energy generators. Vertical wind turbine system contains one or two vertical turbines 1, paired aside each other, and frontal fluid flow diverter 5 for diverting of the running fluid flow, as well as cover 6, which covers the upper part of turbine(-s) 1. The indicated system is characterized by additional rear fluid flow diverter 10, which is installed behind one or both turbines 1 and is configured so as to divert fluid flow X? running above cover 6 to the rear part of turbine(-s) 1, creating secondary fluid flow Y in the blades 4 of turbine(-s) 1.

Classifications:

International (IPC 8-9): F03B1/02 F03B13/00 F03B3/12 F03B3/18
F03D3/00 F03D3/04 F03D7/06 F03D9/00
F03D9/25 (Advanced/Invention)

CPC: F03D3/005 F03B3/12 F03B3/18 F03B13/00 F03D3/0436

F03D3/0454 F03D9/25 F05B2240/13 Y02E10/74 F03D3/02 F03D3/04
US: 415/211.2



Family:

Publication number	Publication date	Application number	Application date
AU2014238605 AA	20151105	AU20140238605	20140321
AU2014238605 BB	20171130	AU20140238605	20140321
BR112015024278 A2	20170718	BR20151124278	20140321
CA2907787 AA	20150921	CA20142907787	20140321
CA2907787 C	20180501	CA20142907787	20140321
CN105164407 A	20151216	CN201480024322	20140321
DE602014023032 D1	20180426	DE201460023032T	20140321
EP2977605 A1	20160127	EP20140767752	20140321
EP2977605 A4	20161109	EP20140767752	20140321
EP2977605 B1	20180328	EP20140767752	20140321
IN09380DN2015 A	20160219	IN2015DN09380	20151009
JP2016512866 T2	20160509	JP20160504273T	20140321
JP6431524 B2	20181128	JP20160504273T	20140321
LV14921 A	20141020	LV20130000037	20130322
LV14921 B	20150220	LV20130000037	20130322
RU2015142425 A	20170425	RU20150142425	20140321
RU2015142425 A3	20180320	RU20150142425	20140321
RU2667732 C2	20180924	RU20150142425	20140321
US2016053743 AA	20160225	US20140779304	20140321
US10018176 BB	20180710	US20140779304	20140321
WO14148879 A1	20140925	WO2014LV00004	20140321

Priority:

LV20130000037 20130322 EP20140767752 20140321 WO2014LV00004 20140321
RU20150142425 20140321

Probable Assignee:

Assignee(s): FILIPOVS GIRTS; FILIPOVS GIRTS; GIRTS FILIPOVS; JURIS KISELOVS; KISELOVS JURIS

Assignee(s): KISELOV YURIJ

Inventor(s): (std): JURIJS KISELOVS ; KISELOV YURIJ ; KISELOVS JURIJS
Agent(s): EAGAR AND MARTIN PTY LTD; EAGAR AND ASSOCIATES PTY LTD; ROWAND LLP; KUZJUKEVICA LUCIJA; PATENTIKA; BLANK ROME LLP
Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

21) Family number: 57403248 (US2014271167A)

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Title: MULTI-STAGE RADIAL FLOW TURBINE

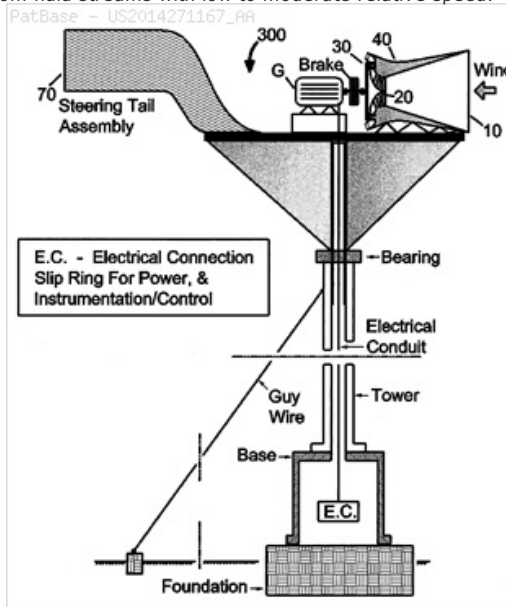
Abstract: A multi-stage radial turbine for usage in energy capture from fluid streams with low to moderate relative speed.

Classifications:

International (IPC 8-9): F01D1/06 F01D11/00 F01D15/08 F01D15/10 F01D17/10 F01D25/24 F01D5/04 F01D5/06 F01D9/04 F03B3/00 F03D1/04 F03D13/20 F03D3/00 F03D3/02 F03D3/04 F03D9/00 F03D9/30 (Advanced/Invention)

CPC: F01D25/24 F01D1/06 F01D5/04 F01D5/06 F01D9/041 F01D15/10 F01D15/08 F01D17/105 F03D3/0454 F03D3/0463 F03D9/32 B60K16/00 F03D1/04 F03D9/20 F03D9/25 F03B13/08 F03B3/00 F03D3/005 F03D3/0427 F03D13/20 F05B2210/16 F05B2240/93 F05B2240/941 Y02E10/223 Y02E10/727 Y02E10/74 F05B2240/13 Y02T50/672 F03D3/02 F03D9/00 Y02E10/22

US: 1/1 415/121.3 415/145 415/206 415/208.2 60/805



Family:

Publication number	Publication date	Application number	Application date
EP2778394 A2	20140917	EP20140000959	20140314
EP2778394 A3	20180328	EP20140000959	20140314
US2014271167 AA	20140918	US20140209019	20140313
US2015322819 AA	20151112	US20140489644	20140918
US2018163567 AA	20180614	US20170831567	20171205
US9856853 BB	20180102	US20140209019	20140313
WO15138004 A1	20150917	WO2014US55769	20140916

Priority:

US20130782044P 20130314 US20140209019 20140313 US20140489644 20140918
US20170831567 20171205

Probable Assignee: FRENCH JOHN

Assignee(s): (std): FRENCH JOHN

Inventor(s): (std): FRENCH JOHN

Agent(s): GROSSE SCHUMACHER KNAUER VON HIRSCHHAUSEN; FAY SHARPE LLP; TURUNG BRIAN E

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

22) Family number: 56778285 (US2014175798A)

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Title: POWER GENERATION SYSTEM AND METHOD OF USE THEREOF

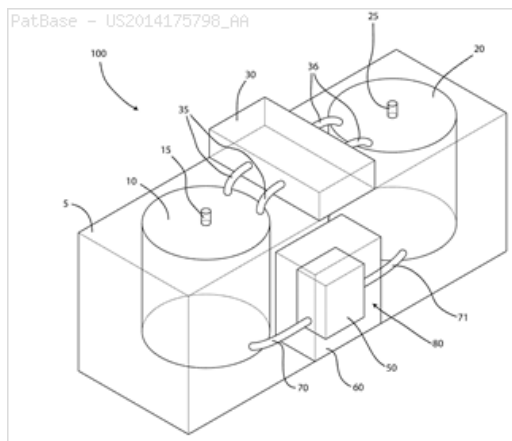
Abstract: A power generation system comprising a first vessel, a second vessel, a pump operably connected to the first vessel and the second vessel, and a turbine manifold assembly operably connected to the first vessel and the second vessel, wherein the pump creates a positive pressure in the first vessel to force a fluid in a first direction through the turbine manifold assembly and into the second vessel to a pre-determined level by a negative pressure in the second vessel, wherein, once the fluid reaches the pre-determined level in the second vessel, the pump creates a positive pressure in the second vessel to force the fluid in an opposing second direction through the turbine manifold assembly and back into the first vessel by a negative pressure in the first vessel to complete a cycle is provided. Furthermore, associated methods and a turbine manifold assembly is also provided.

Classifications:

International (IPC 8-9): F01D15/10 F01D17/10 F03B17/00 F03G7/00 F03G7/10 F04D27/02 H02K7/00 (Advanced/Invention); F03B17/00 (Advanced/Non-invention)

CPC: F04D27/02 F01D17/10 F01D15/10 F05D2220/76 F03B17/005 Y10S415/916 F03G7/00 F03G7/10

US: 1/1 290/52 290/54 415/182.1



Family:

Publication number	Publication date	Application number	Application date
EP2948676 A1	20151202	EP20130865709	20131112
EP2948676 A4	20161116	EP20130865709	20131112
US2014175798 AA	20140626	US20120721782	20121220
US2016319692 AA	20161103	US20160155198	20160516
US9341165 BB	20160517	US20120721782	20121220
US9752452 BB	20170905	US20160155198	20160516
WO14099184 A1	20140626	WO2013US69661	20131112

Priority:

US20120721782 20121220 WO2013US69661 20131112 US20160155198 20160516

Probable Assignee: HOOSE JR HOWARD G

Assignee(s): (std): HOOSE HOWARD G JR ; HOOSE JR HOWARD G

Assignee(s): HOOSE HOWARD G

Inventor(s): (std): HOOSE HOWARD G JR ; HOOSE JR HOWARD G

Inventor(s): HOOSE HOWARD G

Agent(s): CABINET LAURENT AND CHARRAS; JOHN; TECH VALLEY PATENT LLC; PIETRANGELO JOHN

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

23) Family number: 55974475 (US2015219347A)

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Title: ROTOR VENTILATOR

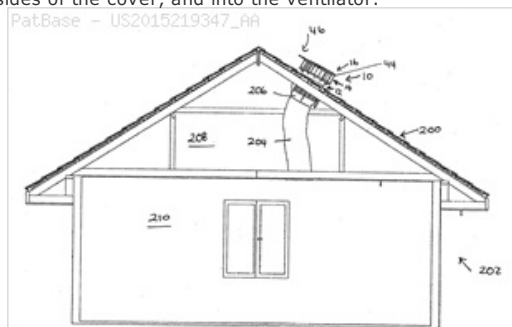
Abstract: A rotor ventilator comprising a ventilator stator for mounting to a structure and a ventilator rotor for mounting and rotation with respect to the ventilator stator is disclosed. The ventilator further comprises a cover for positioning over the ventilator rotor and mounting to the ventilator stator. The cover comprises a central portion surrounded by an outer substantially concave portion. The outer concave portion of the cover may protect the ventilator from environmental conditions/elements, such as by redirecting particles, water droplets, debris and dust, etc away from the interior of the ventilator. The outer concave portion may act as a trough, from which the particles can then be directed off the cover. The trough may also act to prevent the particles from escaping over the sides of the cover, and into the ventilator.

Classifications:

International (IPC 8-9): E21F1/08 F03B3/12 F03D1/06 F03D9/00 F24F F24F11/00 F24F13/00 F24F13/20 F24F7/02 F24F7/06 (Advanced/Invention)

CPC: F24F7/065 F24F13/20 F24F2013/205 F24F7/025 Y02E10/721

US: 454/343 454/344 454/366 454/367



Family:

Publication number	Publication date	Application number	Application date
AU2013313031 AA	20140313	AU20130313031	20130909
AU2013313031 BB	20180621	AU20130313031	20130909
US2015219347 AA	20150806	US20130426789	20130909
US9644854 BB	20170509	US20130426789	20130909
WO14036613 A1	20140313	WO2013AU01022	20130909
ZA201501655 A	20161026	ZA20150001655	20130909

Priority:

AU20120903906 20120907 AU20130313031 20130909 WO2013AU01022 20130909

Probable Assignee: CSR BUILDING PRODUCTS LTD

Assignee(s): (std): CSR BUILDING PRODUCTS LTD

Inventor(s): (std): DEREK MUNN ; COLIN SCHWECHE ; TAREK ALFAKHRANY ; SCHWECHE COLIN ; MUNN DEREK ; ALFAKHRANY TAREK

Agent(s): GRIFFITH HACK; MICHAEL BEST AND FRIEDRICH LLP

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

24) Family number: 55900411 (US2014062093A) © PatBase

Title: BUILDINGS WITH WIND-ENERGY-CONVERSION SYSTEMS

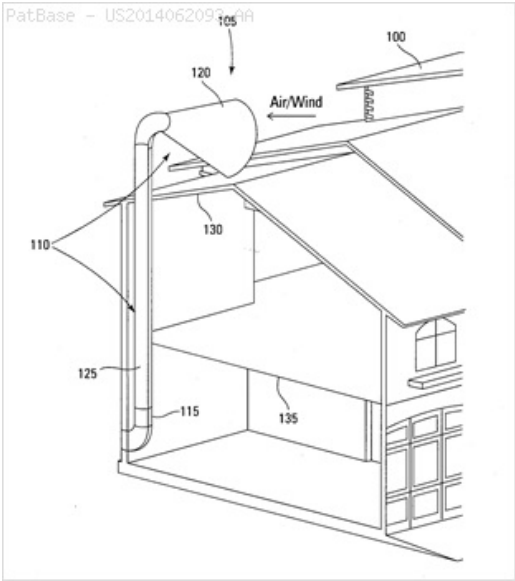
Abstract: An embodiment of a building may include a wind-energy-conversion system with a duct that may be a substantially vertical converging nozzle. An energy extractor may be fluidly coupled to the duct. For some embodiments, a space within the building may be part of the wind-energy-conversion system and may be fluidly coupled to the energy extractor by the duct.

Classifications:

International (IPC 8-9): B23P17/04 E04H1/02 E04H1/04 F03D F03D1/00 F03D1/02 F03D1/04 F03D1/06 F03D11/00 F03D11/02 F03D11/04 F03D3/04 F03D5/06 F03D9/00 F03D9/45 H02K7/18 H02N2/18 (Advanced/Invention); F03D (Subclass/Invention)

CPC: F03D1/04 F03D3/0427 F05B2240/9112 Y02B10/30 Y02E10/728 Y02E10/74 Y10T29/49826 H02K7/183 F03D1/06 H02N2/185 Y02E10/721 F03D13/10 F03D13/20 F03D1/025 F03D9/25 F03D9/45

US: 1/1 29/428 29/889.22 290/55 310/339 415/151 415/182.1 415/208.1



Family:

Publication number	Publication date	Application number	Application date
AU2013313164 AA	20140313	AU20130313164	20130827
AU2013313164 BB	20160707	AU20130313164	20130827
BR112015005023 A2	20170704	BR20151105023	20130827
CN104321528 A	20150128	CN201380026804	20130827
EP2861866 A1	20150422	EP20130834842	20130827
EP2861866 A4	20160120	EP20130834842	20130827
HK1206408 A1	20160108	HK20150106863	20150720
IN01861MN2014 A	20150703	IN2014MN01861	20140919
JP2015532692 T2	20151112	JP20150531123T	20130827
MX2014013031 A1	20150204	MX20140013031	20130827
NZ631607 A	20170127	NZ20130631607	20130827
US2014062093 AA	20140306	US20120605310	20120906
US2016153429 AA	20160602	US20160040402	20160210
US9294013 BB	20160322	US20120605310	20120906
WO14039319 A1	20140313	WO2013US56736	20130827

Priority:

US20120605310 20120906 WO2013US56736 20130827 US20160040402 20160210

Probable Assignee: SHEER WIND INC

Assignee(s): (std): ALLAEI DARYOUSH ; SHEER WIND INC

Assignee(s): PINEY WOODS PATENT GROUP LLC

Inventor(s): (std): ALLAEI DARYOUSH ; DARYOUSH ALLAEI

Agent(s): DARK IP; ADVOTEC; GE BO; BILLION AND ARMITAGE; BENJAMIN C; MYRUM TOD A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

25) Family number: 55169838 (WO13171320A1) © PatBase

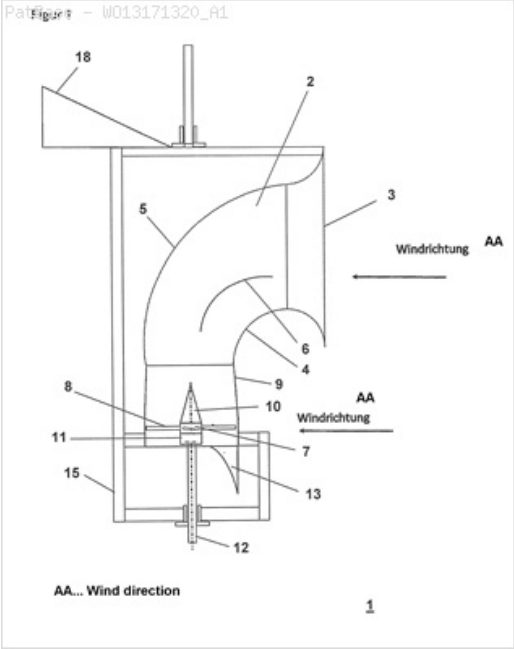
Title: WIND MOTOR WITH ROTATIONAL AXIS SUBSTANTIALLY PERPENDICULAR TO THE WIND DIRECTION

Abstract: The invention concerns a wind motor with a rotational axis oriented substantially perpendicular to the wind

direction, the rotational axis having an inflow duct with a wind-collector region. A wind motor of this type combines the advantages of a wind power plant having a horizontal rotational axis designed in the manner of a propeller in terms of performance yield with the structural advantages of a vertical rotational axis.

Classifications:

International (IPC 8-9): F03D1/04 (Advanced/Invention)
CPC: F05B2240/131 F05B2240/133 F05B2250/315 Y02E10/72
F03D15/20 F03D80/70 F03D1/04



Family:

Publication number	Publication date	Application number	Application date
DE102012010576 A1	20131121	DE201210010576	20120516
WO13171320 A1	20131121	WO2013EP60178	20130516

Priority:

DE201210010576 20120516

Probable Assignee: FORKERT TECHNOLOGY SERVICES GMBH

Assignee(s): (std): FORKERT TECHNOLOGY SERVICES GMBH

Inventor(s): (std): FORKERT JAN DR ; FORKERT JAN

Agent(s): KOENIGER KARSTEN ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

26) Family number: 55113983 (US2013292942A)

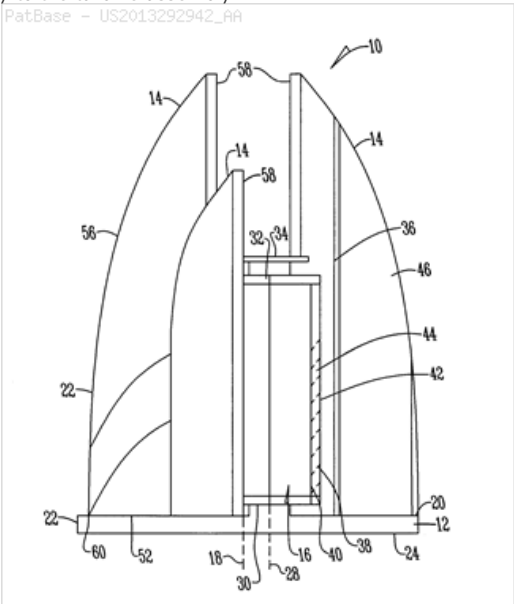
© PatBase

Title: WIND POWER GENERATION ASSEMBLY

Abstract: A wind power generation assembly having a rotatable base. Attached to the base are a plurality of arcuate panels that surround a turbine assembly. The center axis of the base and the center axis of the turbine assembly are offset. The panels are positioned to capture the wind and redirect the wind energy to the turbine assembly.

Classifications:

International (IPC 8-9): F03D11/00 F03D3/04 F03D7/02
F03D9/00 (Advanced/Invention)
CPC: F03D7/0204 F03D3/0463 F05B2240/941 Y02E10/74 F03D9/32
F03D13/20 F03D9/25 Y02E10/728
US: 1/1 290/44 290/55



Family:

Publication number	Publication date	Application number	Application date
US2013292942 AA	20131107	US20130874782	20130501
US9435319 BB	20160906	US20130874782	20130501

Priority:

US20120640885P 20120501 US20130874782 20130501

Probable Assignee: HARPER BRENT

Assignee(s): (std): HARPER BRENT ; HOLZMANN TIM ; MACKIE THOMAS

Inventor(s): (std): MACKIE THOMAS ; HARPER BRENT ; HOLZMANN TIM

Agent(s): ZARLEY LAW FIRM PLC

27) Family number: 55057458 (US2013284396A)

© PatBase

Title: CONTAINER DATA CENTER

Abstract: A container data center includes a container and an air collecting device. The air collecting device includes a collecting member, a first duct connected to the collecting member, and a second duct connected to the container. One end of the first duct opposite to the collecting member is pivotably connected to the second duct. The collecting member is rotatable to collect the airflow. The airflow flows through the first duct and the second duct to go into the container.

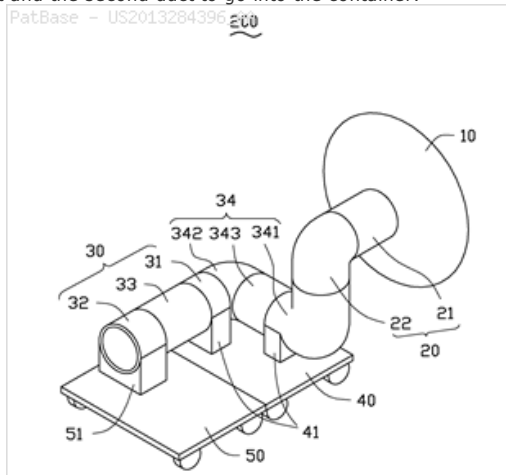
Classifications:

International (IPC 8-9): F24F7/04 G06F1/20

H05K7/20 (Advanced/Invention)

CPC: G06F1/20

US: 165/45 165/57 62/260



Family:

Publication number	Publication date	Application number	Application date
CN103376862 A	20131030	CN201210130157	20120428
TW201345401 A	20131101	TW20120115900	20120504
US2013284396 AA	20131031	US20120491578	20120607

Priority:

CN201210130157 20120428

Probable Assignee: HON HAI PRECISION IND CO LTD

Assignee(s): (std): HONGFUJIN PREC IND SHENZHEN ; HONHAI PRECISION IND CO LTD ; YANG FENG CHI ; HON HAI PREC IND CO LTD

Assignee(s): HON HAI PRECISION IND CO ; HON HAI PRECISION IND CO LTD ; HONGFUJIN PRECISION IND SHENZHEN CO

Inventor(s): (std): YANG FENG CHI ; YANG FENGQI

28) Family number: 53856952 (US2013136574A)

© PatBase

Title: INTAKE ASSEMBLIES FOR WIND-ENERGY CONVERSION SYSTEMS AND METHODS

Abstract: An intake assembly for a wind-energy conversion system has a substantially vertical converging nozzle, an object extending into the nozzle, and a converging flow passage between the object and the nozzle. For some embodiments, the object may be another nozzle. There may be vanes in one or both nozzles in further embodiments. The object may be configured to move in yet other embodiments.

Classifications:

International (IPC 8-9): F03D F03D1/04 F03D1/06 F03D11/00

F03D5/00 F03D7/00 F03D7/02 F03D7/04 F03D9/00

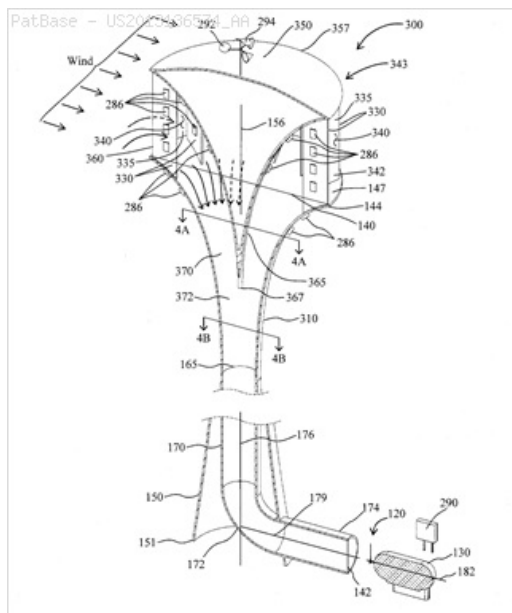
F16L9/00 (Advanced/Invention);

F03D (Subclass/Invention)

CPC: F05B2240/131 F05B2250/5011 F03D7/042 F03D7/0244

Y02E10/721 F03D9/25 F03D80/00 F03D1/06 F03D1/04

US: 1/1 138/177 138/37 415/1 415/202 415/213.1



Family:

Publication number	Publication date	Application number	Application date
AU2012345809 AA	20130606	AU20120345809	20121130
AU2012345809 BB	20160512	AU20120345809	20121130
CN104053904 A	20140917	CN201280067182	20121130
EP2786016 A1	20141008	EP20120852623	20121130
EP2786016 A4	20150701	EP20120852623	20121130
HK1199295 A1	20150626	HK20140112840	20141223
IN04627CN2014 A	20150918	IN2014CN04627	20140619
NZ626491 A	20151127	NZ20120626491	20121130
US2013136574 AA	20130530	US20110307313	20111130
US2016017862 AA	20160121	US20150866374	20150925
US9291148 BB	20160322	US20110307313	20111130
WO13082369 A1	20130606	WO2012US67211	20121130

Priority:

US20110307313 20111130 WO2012US67211 20121130 US20150866374 20150925

Probable Assignee: SHEER WIND INC

Assignee(s): (std): ALLAEI DARYOUSH ; SHEER WIND INC

Assignee(s): PINEY WOODS PATENT GROUP LLC

Inventor(s): (std): ALLAEI DARYOUSH ; ALLAEI DARYOUSH

Agent(s): GRIFFITH HACK; BERESFORD KEITH DENIS LEWIS; GE BO; BILLION AND ARMITAGE; MYRUM TOD A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

29) Family number: 50143575 (US2014241873A)

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Title: FLUID POWERED TURBINE

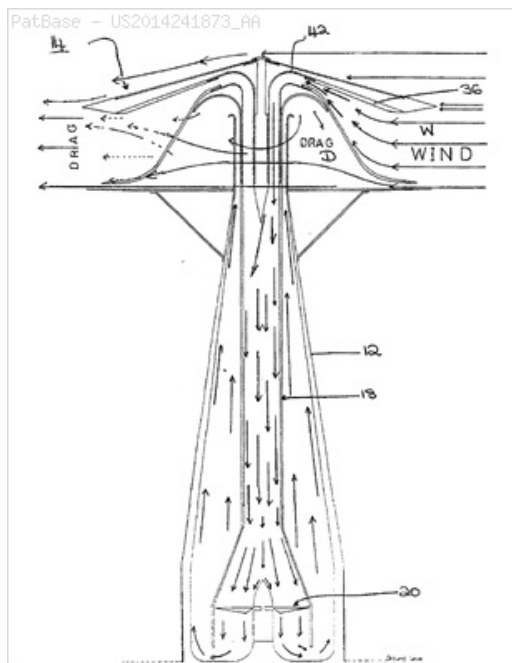
Abstract: A fluid powered turbine, such as a wind turbine (10), has a hollow column (12) in which a rotating turbine is housed. A fluid directing structure (14) is supported at or near an end of the column (12) remote from the turbine. The fluid directing structure (14) has a plurality of individual inlet openings (26) spaced around its periphery and is arranged to direct air at each inlet opening into an inner pipe (18). The incoming air is constricted both within the structure (14) and as it exits the column (12) whereby its speed is sufficient to rotate the turbine (20). The structure at the top of the column (12) generally requires no maintenance and maintenance of the turbine (20) is considerably easier than with traditional wind generators as access is easy. As the turbine is enclosed, it is safer than the traditional wind generators and less noisy.

Classifications:

International (IPC 8-9): F03B13/26 F03B17/06 F03D1/04 F03D11/00 F03D3/04 (Advanced/Invention)

CPC: F03B17/062 F03D3/005 F03D3/0427 Y02E10/74 F05B2240/131 Y02E10/28 Y02E10/72 Y02E10/38 F03D1/04

US: 1/1 415/208.5



Family:

Publication number	Publication date	Application number	Application date
BR112014008747 A2	20160202	BR20141108747	20121015
CN103958886 A	20140730	CN201280050497	20121015
DE602012046961 D1	20180628	DE201260046961T	20121015
DK2776710 T3	20180903	DK20120784040T	20121015
EP2776710 A1	20140917	EP20120784040	20121015
EP2776710 B1	20180530	EP20120784040	20121015
ES2685223 T3	20181005	ES20120784040T	20121015
GB201117758 A0	20111123	GB20110017758	20111014
GB2495542 A1	20130417	GB20110017758	20111014
GB2495542 B2	20180418	GB20110017758	20111014
IN00709KN2014 A	20140516	IN2014KN00709	20140331
JP2014528554 T2	20141027	JP20140535168T	20121015
JP5778350 B2	20150916	JP20140535168T	20121015
KR20140087009 A	20140708	KR20147012972	20121015
RU2014119372 A	20151120	RU20140119372	20121015
US2014241873 AA	20140828	US20120348776	20121015
US9243610 BB	20160126	US20120348776	20121015
WO13054140 A1	20130418	WO2012GB52549	20121015

Priority:

GB20110017758 20111014 EP20120784040 20121015 WO2012GB52549 20121015

Probable Assignee: FUNNELHEAD LTD

Assignee(s): (std): DEGALA RAJESHWAR R ; DEGALA RAJESHWAR RAO ; FUNNELHEAD LTD

Assignee(s): RAJESHWAR RAO DEGALA

Inventor(s): (std): DEGALA RAJESHWAR RAO ; RAJESHWAR RAO DEGALA

Agent(s): BECK GREENER; SAEZ ANA; KILPATRICK TOWNSEND AND STOCKTON LLP; NEEDLE JACQUELINE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

30) Family number: 53272700 (US2013069369A)

© PatBase

Title: RENEWABLE ENERGY EXTRACTION DEVICE

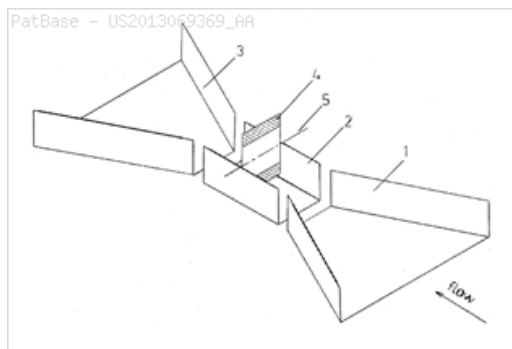
Abstract: Disclosed is a renewable energy extraction device and methods for producing renewable energy from flowing air or water. The renewable energy extraction device captures a relatively large amount of flowing water or atmospheric air and increases speed of the captured water or air by decreasing flow cross sectional area in the flow direction. An energy extraction component is used to extract energy of the high-speed water or air and convert it to rotational mechanical energy on a power shaft. A rotation direction control mechanism is used to make the power shaft always rotate in one direction, without coming to a stop, for ocean applications. The mechanical energy of the power shaft is transmitted to an electric generator, pump, compressor, or any other rotary equipment. After extraction of its energy, the captured air or water is released to its original source at a downstream location.

Classifications:

International (IPC 8-9): F03B11/02 F03B13/00 F03B13/26 F03B7/00 F03D9/00 H02P9/04 (Advanced/Invention)

CPC: F03B7/00 F03B11/02 F03B13/264 F05B2210/16 F05B2240/133 F05B2260/4031 F05B2260/421 Y02E10/223 Y02E10/226 Y02E10/28

US: 1/1 290/53 290/54 290/55 416/32



Family:

Publication number	Publication date	Application number	Application date
US2013069369 AA	20130321	US20120564700	20120801
US9086047 BB	20150721	US20120564700	20120801

Priority:

US20110627069P 20110917 US20120564700 20120801

Probable Assignee: SALEHPOOR KARIM

Assignee(s): (std): SALEHPOOR KARIM

Inventor(s): (std): SALEHPOOR KARIM

31) Family number: 53009780 (FR2978797B)

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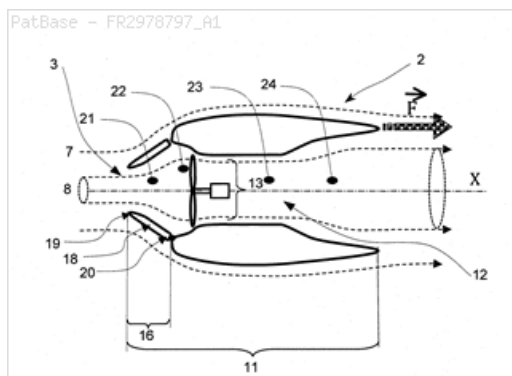
Title: TURBINE GENERATRICE DE COURANT ELECTRIQUE

Abstract: Source: FR2978797B [FR] L'invention concerne une turbine a effet Venturi destinee a alimenter en courant electrique un vehicule. La turbine comporte une tuyere d'admission definissant l'entree de la turbine et apte a regler la surface de cette entree. La trainee et la production de courant electrique de la turbine dependent du reglage de la surface de l'entree de la turbine. Un bipasse optionnel, forme d'un canal secondaire, permet de faire varier l'effet Venturi pour ajuster la trainee de la turbine.

Classifications:

International (IPC 8-9): F01D9/02 (Advanced/Invention)

CPC: Y02E10/72 F05B2240/121 F05B2240/133 F05B2240/941 F03D1/04



Family:

Publication number	Publication date	Application number	Application date
FR2978797 A1	20130208	FR20110002397	20110801
FR2978797 B1	20160527	FR20110002397	20110801

Priority:

FR20110002397 20110801

Probable Assignee: PERRIERE BERNARD

Assignee(s): (std): PERRIERE BERNARD

Assignee(s): BERNARD PERRIERE

Inventor(s): (std): PERRIERE BERNARD

Inventor(s): BERNARD PERRIERE

Agent(s): NOVAIMO; CABINET GRIS

32) Family number: 52874517 (DE102011108512B4)

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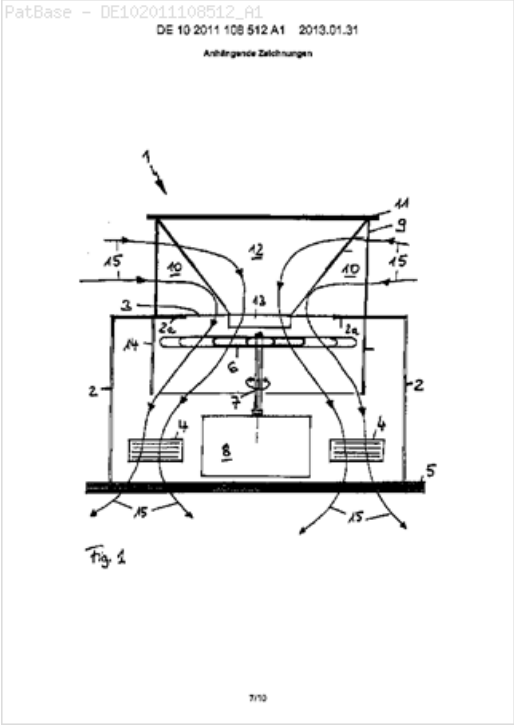
Title: WINDKRAFTANLAGE

Abstract: Source: DE102011108512B4 [DE] Windkraftanlage mit wenigstens einem Rotorblattaggregat (6) mit vertikaler Rotorwelle (7) und mit wenigstens einem mit der Rotorwelle (7) verbundenen Energiewandler (8) zur Umwandlung der vom Wind erzeugten Rotationsenergie in eine andere Energieform, wobei das Rotorblattaggregat (6) in einem geschlossenen Gehaeuse (2) angeordnet ist, wobei oberseitig des Rotorblattaggregates (6) eine Lufteintrittsoeffnung (3) vorgesehen ist, und wobei das Gehaeuse (2) unterhalb des Rotorblattaggregates (6) wenigstens eine Luftaustrittsoeffnung (4) aufweist, dadurch gekennzeichnet, dass oberhalb der Lufteintrittsoeffnung (3) auf dem Gehaeuse (2) ein Stroemungsleitelement (9) angeordnet ist, welches mehrere sich im Wesentlichen vertikal erstreckende Leitwaende (10) aufweist, die in Draufsicht gesehen kreuzfoermig angeordnet sind, wobei das Stroemungsleitelement (9) oberseitig mit einer haubenartigen Deckwand (11) verschlossen ist, und wobei das Stroemungsleitelement (9) zwischen den sich vertikal erstreckenden Leitwaenden (10)

zusätzliche diagonal nach innen und unten verlaufende Leitwaende (12) aufweist, wobei die Leitwaende (10) und die zusätzlichen Leitwaende (12) innenseitig in einem querschnittlich quadratischen zapfenförmigen Zentralbereich (13) enden.

Classifications:

International (IPC 8-9): F03D3/04 (Advanced/Invention)
CPC: F05B2240/14 F05B2240/211 Y02B10/30 Y02E10/72 F03D1/04 F03D9/25



Family:

Publication number	Publication date	Application number	Application date
DE102011108512 A1	20130131	DE201110108512	20110726
DE102011108512 B4	20150326	DE201110108512	20110726

Priority:

DE201110108512 20110726

Probable Assignee: BORGSMUELLER PETER
Assignee(s): (std): BORGSMUELLER PETER
Assignee(s): BORGSMUELLER
Inventor(s): (std): BORGSMUELLER PETER

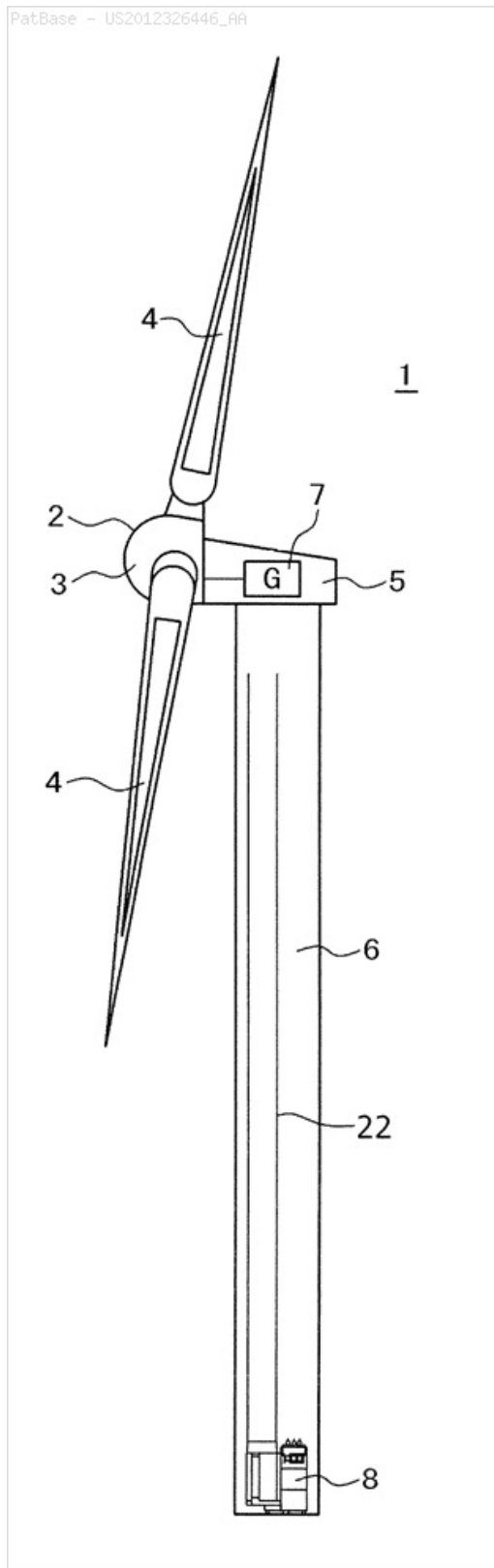
33) Family number: 52600253 (US2012326446A) © PatBase

Title: STATIONARY EQUIPMENT

Abstract: The present invention aims to provide stationary equipment installed in a sealed space on a space-saving basis and having a favorable cooling efficiency. Stationary equipment of the present invention includes an equipment main body containing an iron core, a coil and insulating oil, a hollow pipe connected to the equipment main body to circulate the insulating oil in it and a plurality of hollow corrugated fins disposed on the pipe. The pipe and the corrugated fins are covered with a hood, a duct is connected to the hood and the duct is connected to an elongated cylindrical member vertically disposed on an inner wall of the tower to increase airflow by stack effect to increase a cooling efficiency in a wind power generation device.

Classifications:

International (IPC 8-9): B61H F03D11/00 F03D80/00 F03D9/00 (Advanced/Invention);
B61H (Subclass/Invention)
CPC: Y02B10/30 F03D80/82 Y02E10/725 F03D80/60
European: F03D11/00G R05B260/20
US: 290/55

**Family:**

Publication number	Publication date	Application number	Application date
CN102840106 A	20121226	CN201210212695	20120621
CN102840106 B	20150429	CN201210212695	20120621
DE602012013293 D1	20160218	DE201260013293T	20120209
EP2538076 A2	20121226	EP20120154642	20120209
EP2538076 A3	20141126	EP20120154642	20120209
EP2538076 B1	20151230	EP20120154642	20120209
IN00382DE2012 A	20150515	IN2012DE00382	20120210
JP2013029099 A2	20130207	JP20110283336	20111226
JP5912518 B2	20160427	JP20110283336	20111226
US2012326446 AA	20121227	US20120372127	20120213
US8698343 BB	20140415	US20120372127	20120213

Priority:

JP20110138162 20110622 JP20110283336 20111226 EP20120154642 20120209

Probable Assignee: HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO LTD

Assignee(s): (std): HITACHI IND EQUIPMENT SYS ; ONO JUNJI ; OHAMA HIDEHARU ; SHIRAHATA TOSHIKI
Assignee(s): HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO ; HITACHI INDUSTRIAL EQUIPMENT SYSTEMS CO LTD
Inventor(s): (std): OHAMA HIDEHARU ; ONO JUNJI ; SHIRAHATA TOSHIKI
Inventor(s): ONO JUNJI TOKYO ; SHIRAHATA TOSHIKI TOKYO ; OHAMA HIDEHARU TOKYO
Agent(s): CALDERBANK THOMAS ROGER; SEIRYO IPC; MCDERMOTT WILL AND EMERY LLP
Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

34) Family number: 49624108 (US2011232630A)

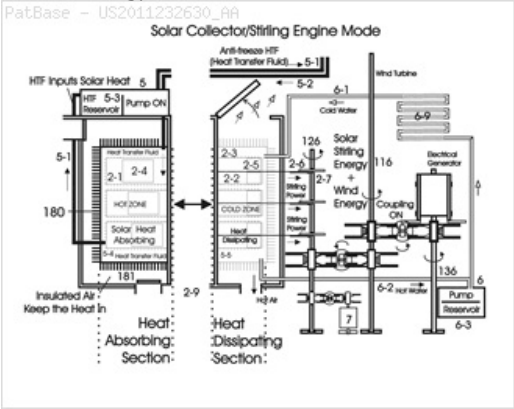
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Title: SOLAR COLLECTOR/WIND DEFLECTOR CONVERSION OF A SOLAR AND WIND CONVERTER

Abstract: An integrated solar and wind hybrid energy generating system is capable of converting a solar collector to a wind deflector to increase wind catching area for the wind turbine during the nighttime and on overcast days and exchangeable between modes of Stirling cycle and reversed Stirling cycle for electricity generation and environmental control. During the sunny days, the system concurrently derives energy from both wind and solar energy sources.

Classifications:

International (IPC 8-9): F03D9/00 F24J2/04 F24J2/38 H01L31/042 H02P9/04 (Advanced/Invention)
CPC: Y02E10/42 F03G6/068 F05B2240/13 F05B2240/213 Y02B10/12 Y02B10/14 Y02B10/20 Y02B10/30 Y02B10/70 Y02E10/465 Y02E10/725 Y02P80/158 F24S23/71 F24S90/00 F03D9/007 F03D9/11 F03D9/25 F03D15/00 H02S10/12
European: F03D9/00E F03G6/06S F24J2/12 F24J2/42 R05B240/13 R05B240/213 Y02B10/12 Y02B10/14 Y02B10/20 Y02B10/30 Y02B10/70 Y02E10/46U Y02E10/72 Y02E10/72H
US: 126/600 126/640 126/640S 126/678 126/678S 136/244 136/244S 290/44 290/44S 290/55 290/55S



Family:

Publication number	Publication date	Application number	Application date
US2011232630 AA	20110929	US20110152747	20110603

Priority:

US20110152747 20110603

Probable Assignee: TSAO JASON
Assignee(s): (std): TSAO JASON
Inventor(s): (std): TSAO JASON

35) Family number: 52172889 (US2012269627A)

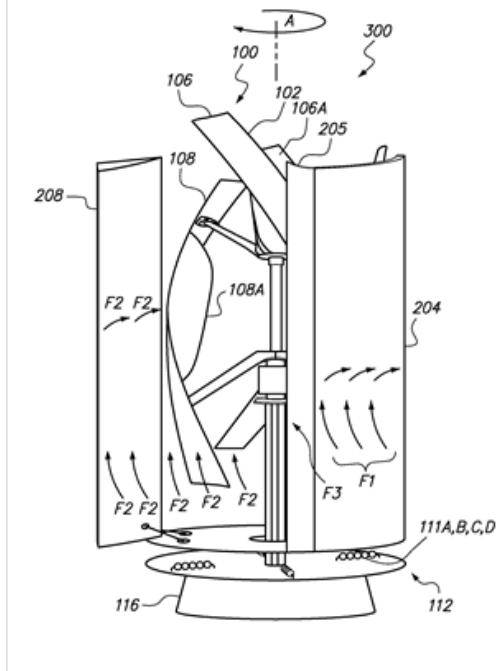
© PatBase

Title: VERTICAL AXIS WINDMILL SYSTEM

Abstract: A vertical axis windmill system. The system includes a plurality of horizontally disposed blades attached to a vertical shaft, a windshield and a wind-flow diverter that results in increased power output of the vertical axis windmill system.

Classifications:

International (IPC 8-9): F03D7/06 (Advanced/Invention)
CPC: Y02E10/74 F03D3/0481 F03D3/0472 F03D13/20
European: F03D3/04E4
US: 416/13

**Family:**

Publication number	Publication date	Application number	Application date
US2012269627 AA	20121025	US20110092902	20110422

Priority:

US20110092902 20110422

Probable Assignee:

GRAHAME WILLIAM

Assignee(s): (std):

GRAHAME WILLIAM

Inventor(s): (std):

GRAHAME WILLIAM

36) Family number: 51933399 (US2012235418A)

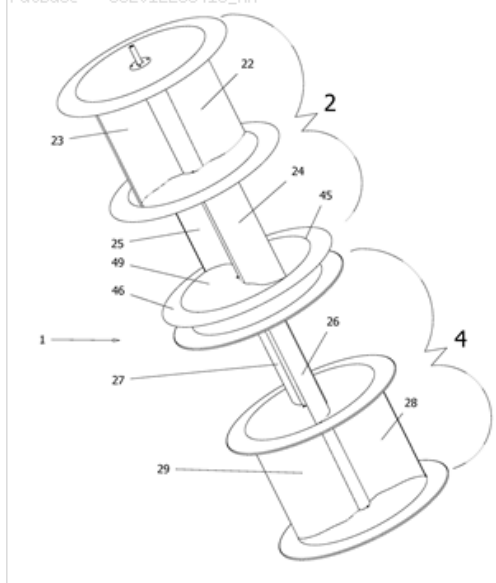
© PatBase

Title: WIND TURBINE APPARATUS

Abstract: A wind turbine apparatus including a shaft, two wind turbines, and a two-piece alternator. The turbines and the alternator are mounted on the shaft. The alternator is located between the turbines. The alternator includes a circular permanent magnet component fixed to the first turbine, and a circular electrical winding component fixed to the second turbine so that, when an effective wind blows in a direction perpendicular to the longitudinal axis of the shaft, the first turbine and the circular magnet component will rotate around the shaft in a first direction and the second turbine and the circular winding component will rotate around the shaft in a second direction opposite the first direction, thereby generating electrical energy.

Classifications:**International (IPC 8-9):** F03D3/02 F03D3/06

F03D9/00 (Advanced/Invention)

CPC: Y02B10/30 Y02B10/70 Y02E10/74 F05B2220/7068 F03D9/11 F03D9/25 F03D3/02**European:** F03D3/02 R05B220/7068**US:** 290/54 290/55**Family:**

Publication number	Publication date	Application number	Application date
CN103608585 A	20140226	CN201280013823	20120314
EP2686548 A1	20140122	EP20120758213	20120314
EP2686548 A4	20141112	EP20120758213	20120314

JP2014511958 T2	20140519	JP20130558128T	20120314
US2012235418 AA	20120920	US20120353998	20120119
US8358030 BB	20130122	US20120353998	20120119
WO12125684 A1	20120920	WO2012US29007	20120314

Priority:

US20110453811P 20110317 US20120353998 20120119 WO2012US29007 20120314

Probable Assignee: VIA VERDE LTD

Assignee(s): (std): HEFAZI HAMID ; MILLER COURTLAND G ; MILLER COURTLANDT G ; PLASKOVE ROBERT M ; RAHAI HAMID R ; VIA VERDE LTD

Assignee(s): VIA VERDE LIMITED

Inventor(s): (std): PLASKOVE ROBERT M ; RAHAI HAMID R ; HEFAZI HAMID ; MILLER COURTLANDT G ; MILLER COURTLAND G

Agent(s): TIRLONI BARTOLOMEO; PEARNE AND GORDON LLP; MURTAUGH JOHN P

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

37) Family number: 51471318 (US2013334825A)

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Title: FLUIDIC FLOW CAPTURE AND ACCELERATION APPARATUS FOR HYPER-CONVERSION

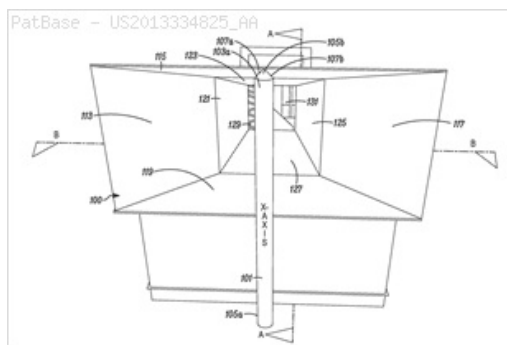
Abstract: This is a device that uniquely amalgamates the effective functionality of wind tunnel fluid acceleration with power conversion. By encapsulating the conversion function it isolates all moving parts and allows a means for auditory and visual isolation. It has the length and shape that can uniquely employ the related dimensional configuration that optimizes acceleration without inducing perturbation. In addition the unique length and volume allows for the effective use of laminating effects that have proven to be effective in wind tunnel applications. Through the use of the various appurtenances described herein an extended degree of flexibility and efficiency are made possible. Though the strategic selection from a wide range of materials, sizes and shapes the essential dynamics of the apparatus may be installed effectively and economically in a wide variety of contexts. All these advantages make this an instrument of virtually unrestricted contextual application with an incomparable potency.

Classifications:

International (IPC 8-9): F03B11/00 F03B17/06 F03D1/04 F03D11/00 F03D3/04 F03D5/00 F03D9/00 F04D29/52 (Advanced/Invention)

CPC: F04D29/522 F03B17/061 F03D1/04 F03D3/0427 F05B2240/133 F05B2240/211 F05B2240/9112 Y02B10/30 Y02B10/50 Y02E10/28 Y02E10/728 Y02E10/74 F03D9/25

US: 1/1 290/55 415/227



Family:

Publication number	Publication date	Application number	Application date
US2013334825 AA	20131219	US20120978363	20120103
US9249807 BB	20160202	US20120978363	20120103
WO12094336 A2	20120712	WO2012US20100	20120103
WO12094336 A3	20120907	WO2012US20100	20120103

Priority:

US20110429307P 20110103 US20120978363 20120103 WO2012US20100 20120103

Probable Assignee: YUP POWER INC

Assignee(s): (std): PEPPER LAURENCE A ; ROTER SAMUEL ; YUP POWER INC

Inventor(s): (std): PEPPER LAURENCE A ; ROTER SAMUEL

Agent(s): KINNEY AND LANGE PA; BILLION RICHARD E ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT QA RO RS RU RW SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

38) Family number: 48470518 (US2012086212A)

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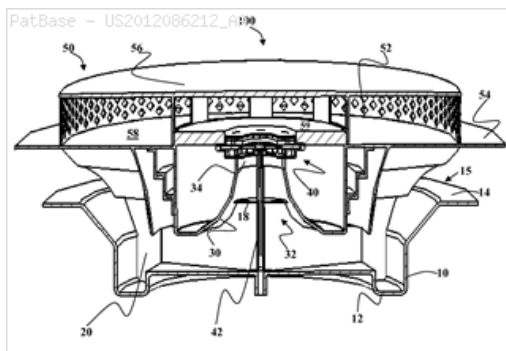
Title: APPARATUS FOR WIND COLLECTION

Abstract: The present invention provides an omnidirectional wind collection apparatus. The wind collector includes an outer housing with a peripheral wind inlet circumferentially formed therein. An inner housing disposed within the outer housing has an inner surface with a first opening at a lower end thereof to guide the collected wind to a smaller second opening at the top end. The inner surface is curved between the bottom and top openings to form a progressively narrower passage. The configuration of the inner surface creates a Venturi effect such that the wind is accelerated toward the second opening. A wind pass-through portion is formed above the second opening in the inner housing. Based on the Bernoulli effect, the passage of uncollected wind through this portion creates a low pressure region that expedites flow of collected wind through the first and second openings of the inner housing.

Classifications:

International (IPC 8-9): F03D11/02 F03D3/00 F03D3/04 F03D9/00

H02P9/04 (Advanced/Invention);
F03D7/00 (Advanced/Non-invention)
CPC: F03D9/25 F03D80/00 F03D1/04 F05B2240/133 Y02E10/725
European: F03D1/04 F03D3/04 R05B240/133 Y02E10/72 Y02E10/74
US: 290/54 290/55 290/55P 415/120 415/120S 415/121.2
415/121.200S 415/201 415/201S 415/4.2 454/38



Family:

Publication number	Publication date	Application number	Application date
CN101985916 A	20110316	CN201010530692	20101104
CN101985916 B	20130313	CN201010530692	20101104
TW201215770 A	20120416	TW20100137045	20101028
US2012086212 AA	20120412	US20100901529	20101010
US8461715 BB	20130611	US20100901529	20101010

Priority:

US20100901529 20101010

Probable Assignee: HONG KONG APPLIED SCIENCE AND TECHNOLOGY RESEARCH INST CO LTD

Assignee(s): (std): CHAN HO YIN ; HK APPLIED SCIENCE AND TECH RES ; LEE FRANCIS CHEE SHUEN

Assignee(s): HONG KONG APPLIED SCIENCE AND TECHNOLOGY RESEARCH INST CO LTD ; HONG KONG APPLIED SCIENCE AND TECHNOLOGY RESEARCHINSTITUTE CO LTD ; HONG KONG APPLIED SCIENCE AND TECHNOLOGY RESEARCHINSTITUTE COMPANY LIMITED

Inventor(s): (std): LEE ZHICHUN ; CHEN HAORAN ; ZHICHUN LEE ; HAORAN CHEN ; CHAN HO YIN ; LEE FRANCIS CHEE SHUEN

Agent(s): ELLA CHEONG; MARGARET A; SAM T

39) Family number: 56024104 (US8678762B)

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Title: CONICAL AIR FLOW SYSTEM

Abstract: A cone-shaped air flow system has improved efficiency, increased plenum chamber exit air flow speeds and reduced noise levels in comparison to box-shaped and triangular air flow systems. The heater may be of half or full cone configuration for perimeter or central plenum locations, respectively.

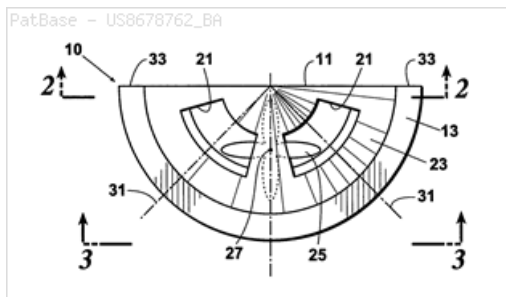
Classifications:

International (IPC 8-9): F03B3/00 F03D11/00

F04D29/00 (Advanced/Invention)

CPC: F04D29/522 F04D29/005 F28D1/024

US: 415/219.1 415/222



Family:

Publication number	Publication date	Application number	Application date
US8678762 BA	20140325	US20100802934	20100617

Priority:

US20100802934 20100617

Probable Assignee: MAD CAPITAL LLC

Assignee(s): (std): BAKER MICHAEL J ; M A D CAPITAL LLC

Assignee(s): MAD CAPITAL LLC

Inventor(s): (std): BAKER MICHAEL J

Agent(s): GABLE GOTWALS

40) Family number: 50100200 (US2011304143A)

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Title: WIND GENERATOR FOR INSTALLATION ON A HOUSE

Abstract: Apparatus (10) for generating electricity comprises a plurality of wind turbines (20) each of which has a rotatable shaft (12) on which a rotor assembly (22) is mounted for turning about a magnet assembly (26). The shaft is coupled to a housing (16) which is rotated in response to wind flow to produce shaft rotation. A second mechanism (30) also produces shaft rotation in response to wind flow, whereby the wind turbine generates electricity in response to wind flow. While each wind turbine has its own shaft, housing, and coupling, the second mechanism is commonly connected to all the wind turbines. A third mechanism (60) is also provided for producing shaft rotation. Each wind turbine includes its own third mechanism. Other embodiments of the invention include a hybrid turbine (100) which utilizes both air and water to produce shaft rotation, and a submerged turbine (300).

Classifications:**International (IPC 8-9):** F03B13/00 F03D11/00

F03D9/00 (Advanced/Invention)

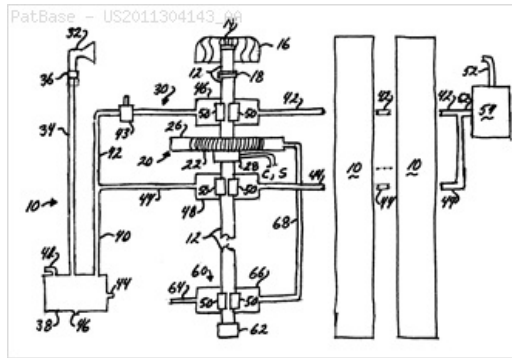
CPC: Y02E10/28 Y02E10/725 Y02E10/728 F05B2240/911 Y02B10/30

Y02B10/50 Y02B10/70 F03D9/25 F03B17/063 F03D3/02 F03D9/008

F03D9/34

European: F03B17/06C2 F03D9/00C R05B240/911 Y02B10/30

Y02B10/50 Y02B10/70 Y02E10/72

US: 290/52 290/52P 290/54 290/54S 290/55 290/55S**Family:**

Publication number	Publication date	Application number	Application date
US2011304143 AA	20111215	US20100814983	20100614

Priority:

US20100814983 20100614

Probable Assignee:

NGUYEN JIM

Assignee(s): (std):

NGUYEN JIM

Inventor(s): (std):

NGUYEN JIM

41) Family number: 49551320 (US2013183139A)

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Title: ENERGY CONVERTER

Abstract: 1. The invention relates to an energy converter having a supply channel for a medium and a turbine wheel (80) downstream from the supply channel. A converter wheel (50) is connected downstream from the turbine wheel (80) such that the inflowing medium can be accelerated by the converter wheel (50), which is preferably caused to rotate by a drive motor (57) in order to rotate the turbine wheel (80). The turbine wheel (80) drives a generator (85) via a gearbox (82). The medium, which in this case flows in at an increased inlet flow velocity and which is, for example, air, eventually causes the converter wheel (50) to rotate, and this drives a further generator (117) via a further gearbox (116).

Classifications:**International (IPC 8-9):** F01D15/00 F01D25/00 F03B17/06 F03B3/00

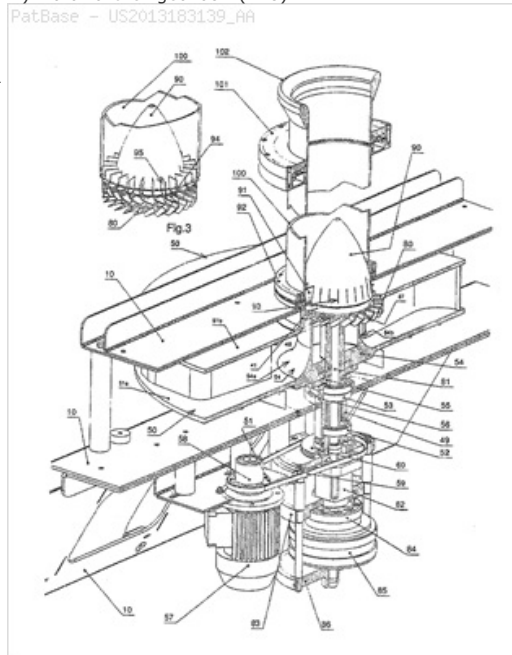
F03D1/04 F03D3/04 F03G7/10 (Advanced/Invention)

CPC: F01D25/00 F03B17/061 F03G7/10 F05B2240/13 F05B2260/4021

Y02B10/30 Y02E10/28 Y02E10/72 F03D15/10 F03D1/04

European: F03B17/06B F03D1/04 F03G7/10 R05B240/13

R05B260/4021 Y02B10/30 Y02E10/28 Y02E10/72

US: 415/115**Family:**

Publication number	Publication date	Application number	Application date
DE102010024621 A1	20110908	DE201010024621	20100622
DE102010024621 B4	20160630	DE201010024621	20100622
US2013183139 AA	20130718	US20110583287	20110302
WO11110157 A2	20110915	WO2011DE000207	20110302
WO11110157 A3	20120202	WO2011DE000207	20110302

Priority:

DE201010024621 20100308

DE201010024621 20100622

WO2011DE000207 20110302

Probable Assignee: BERNSAU**Assignee(s): (std):** BERNSAU GEBHARD ; BERNSAU MANUEL**Assignee(s):** BERNSAU**Inventor(s): (std):** BERNSAU GEBHARD ; BERNSAU MANUEL**Agent(s):** VON PUTTKAMER BERNGRUBER**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL

42) Family number: 48516760 (US2011260459A)

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Title: METHOD AND APPARATUS FOR CREATING INTERNAL DIRECTIONAL UNDERWATER FALLS AND GENERATING ELECTRICAL ENERGY THEREFROM

Abstract: Creation of internal underwater falls and generation of electrical energy therefrom includes providing a hollow tank having a substantially vertical axis; locating a rotatable turbine in an interior of said tank and orienting said rotatable turbine so that its axis of rotation is an axis selected from consisting of a vertical axis of rotation and a horizontal axis of rotation; providing a directional flow of water into said tank forming a directional underwater fall in said tank, and directing the underwater fall onto blades of the turbine to rotate the turbine; connecting an electrical generator with a shaft of the turbine so that the rotation of the shaft of the turbine is transmitted to the electrical generator which thereby generates electricity; and evacuating water from an interior of the tank after water passes through the turbine, so as to leave under the turbine a space sufficient for a continuous flow of water into said tank, formation of the underwater fall into said tank, and flow of water out of said tank.

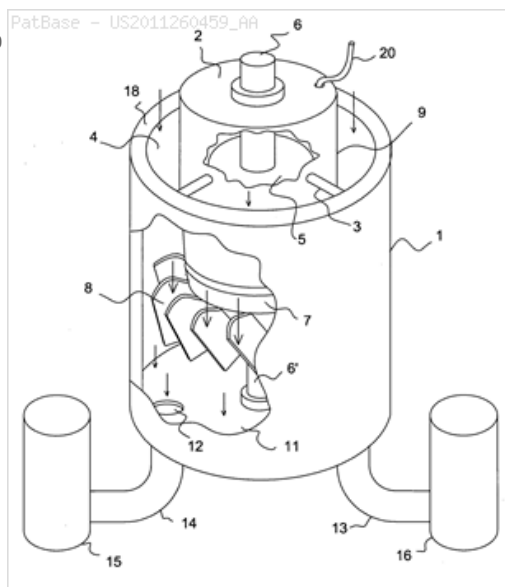
Classifications:

International (IPC 8-9): F03B11/00 F03B13/00 F03B13/08 F03B13/10 F03B17/06 H02P9/04 (Advanced/Invention)

CPC: F03B13/10 F03B17/061 F03B17/063 Y02E10/22 F03B17/04 Y02E10/28

European: F03B13/10 F03B17/04 F03B17/06B F03B17/06C2 Y02E10/20 Y02E10/22 Y02E10/28

US: 290/52 290/52P 290/54 290/54P

**Family:**

Publication number	Publication date	Application number	Application date
US2011260459 AA	20111027	US20110065676	20110328
US2011260460 AA	20111027	US20110931739	20110209
US7915750 BA	20110329	US20100802260	20100603
US8164209 BB	20120424	US20110065676	20110328
WO11090800 A2	20110728	WO2011US00119	20110121
WO11090800 A3	20111117	WO2011US00119	20110121

Priority:

US20100336590P 20100122 US20100342893P 20100421 US20100802260 20100603
US20110931739 20110209 US20110065676 20110328

Probable Assignee: ROVINSKY WILLIAM

Assignee(s): (std): ROVINSKY WILLIAM

Inventor(s): (std): ROVINSKY WILLIAM

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

43) Family number: 49266663 (US2011175366A)

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Title: LOW-PROFILE POWER-GENERATING WIND TURBINE

Abstract: A wind turbine is disclosed which uses energy in air moving relatively toward the turbine to focus and increase the velocity of air entering a turbine inlet air flow passage. The inlet flow passage discharges focused and accelerated air to blades of a rotor where the blades interact with that air to turn the rotor. Rotor motion can be used to operate an electrical generator. The plane of rotation of the rotor can be at substantially right angles to the plane of the passage inlet opening. Baffles in the flow passage and stator vanes adjacent the rotor blades cause the mass flow of the accelerated air to be substantially uniform, and desirably directed, throughout the rotor's blade area. The turbine is compact and operates quietly.

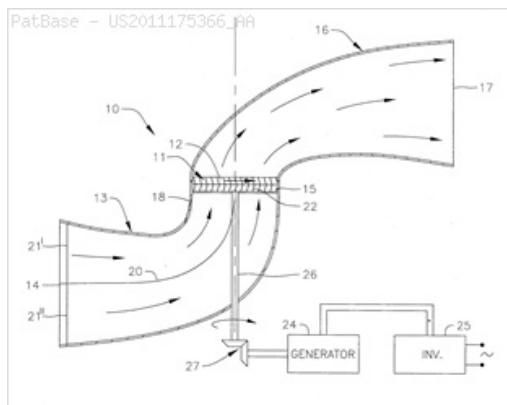
Classifications:

International (IPC 8-9): B62J F03D F03D1/00 F03D1/04 F03D1/06 F03D11/00 F03D9/00 H02P9/04 (Advanced/Invention); F03D9/00 (Core/Invention); F03D (Subclass/Invention)

International (IPC 1-7): F03D9/00

CPC: F03D1/065 F05B2240/13 Y02B10/30 Y02E10/721 Y02E10/725 F03D9/002 F03D9/25 F03D15/10 B60K16/00 F03D1/04

European: F03D1/04 F03D1/06C R05B240/13 Y02B10/30

**Family:**

Publication number	Publication date	Application number	Application date
AP201206393 A0	20120831	AP20120006393	20110119
AU2011207151 AA	20110728	AU20110207151	20110119
BR112012017802 A2	20171219	BR20121117802	20110119
CA2787509 AA	20110728	CA20112787509	20110119
CL2012002009 A1	20130125	CL20120002009	20120719
CL53904 B	20170210	CL20120002009	20120719
CN102792013 A	20121121	CN201180012833	20110119
CO6561840 A2	20121115	CO20120141210	20120821
EP2526291 A1	20121128	EP20110735139	20110119
IL220973 A0	20120924	IL20110220973	20110119
IN07134DN2012 A	20140228	IN2012DN07134	20120816
JP2013517422 T2	20130516	JP20120549163T	20110119
KR20120130179 A	20121129	KR20127021597	20110119
MX2012008349 A1	20121130	MX20120008349	20110119
MX336005 B	20160105	MX20120008349	20110119
SG182551 A1	20120830	SG20120052437	20110119
TH124051 A	20130531	TH20121003576	20110119
US2011175366 AA	20110721	US20110009735	20110119
US2014265346 AA	20140918	US20140287568	20140527
US8791588 BB	20140729	US20110009735	20110119
US9670899 BB	20170606	US20140287568	20140527
WO11091076 A1	20110728	WO2011US21765	20110119
ZA201205379 A	20131030	ZA20120005379	20120718

Priority:

US20100296280P 20100119
US20140287568 20140527

US20110009735 20110119

WO2011US21765 20110119

Probable Assignee: WATTENBERG IND LLC

Assignee(s): (std): STEINLECHNER JOHANN ; WATTENBERG IND LLC

Assignee(s): WATTENBERG INDUSTRIES LLC ; JORY CASSANDRA

Inventor(s): (std): JOHANN STEINLECHNER ; STEINLECHNER JOHAN ; STEINLECHNER JOHANN

Agent(s): SHELSTON IP; SHELSTON IP PTY LTD; BORDEN LADNER GERVAIS LLP; ESTUDIO HARNECKER CAREY LTDA; MAURICIO JARAMILLO CAMPUZANO; BERGSTRAND MIKAEL GUDMUNDSSON; CHRISTIE PARKER AND HALE LLP; LEWIS ROCA ROTHGERBER CHRISTIE LLP; CARNEY HAYDEN A

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

44) Family number: 44968302 (US2010107633A)

© PatBase

Title: SOLAR AND WIND HYBRID POWERED AIR-CONDITIONING/REFRIGERATION, SPACE-HEATING, HOT WATER SUPPLY AND ELECTRICITY GENERATION SYSTEM

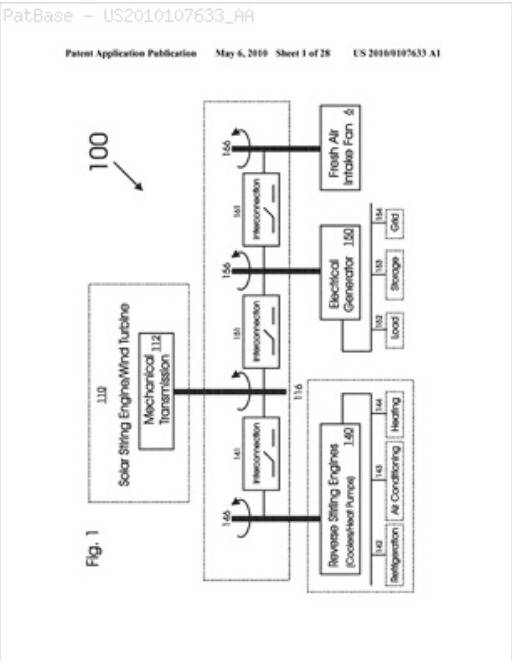
Abstract: A system for environmental control includes a hybrid wind and solar energy collection subsystem; a temperature control subsystem having a thermo-mechanical engine; an electrical generating subsystem; a sensor for detecting an environmental condition; and a controller for receiving information representing an environmental condition from the sensor. The controller is programmed to detect a change in an environmental condition, and in response to the change, to selectively connect the hybrid wind and solar energy collection subsystem to one of the temperature control subsystem and the electrical generating subsystem and to selectively disconnect the hybrid wind and solar energy collection subsystem from the other of the temperature control subsystem and the electrical generating subsystem.

Classifications:

International (IPC 8-9): A47C7/74 F03D9/00 F03G6/06 F04D27/00 F04D29/00 F25B13/00 F25B9/00 F25B9/14 (Advanced/Invention); F03D9/00 F03G6/00 F04D27/00 F04D29/00 F25B13/00 F25B9/14 (Core/Invention)

CPC: F03G6/068 F24F5/0046 F24F2007/004 F25B9/14 F25B27/00 F25B27/002 F25B2309/1428 F25B2400/22 Y02B10/20 Y02B10/30 Y02B10/70 F03D9/25 F03D3/0463 F03D9/007 F03D9/11 F03D9/22 F03D9/255 F03D15/10 F03D17/00 Y02E10/465 Y02E10/74

European: F03D9/00C F03G6/06S F24F5/00F F25B27/00 F25B9/14 R24F7/00G R25B27/00B R25B309/1428 R25B400/22 Y02B10/20 Y02B10/30 Y02B10/70 Y02E10/46 Y02E10/72 Y02E10/72H



Family:

Publication number	Publication date	Application number	Application date
US2010107633 AA	20100506	US20100684688	20100108
US7937955 BB	20110510	US20100684688	20100108

Priority:

US20100684688 20100108

Probable Assignee: TSAO JASON
Assignee(s): (std): TSAO JASON
Inventor(s): (std): TSAO JASON
Agent(s): OCCHIUTI ROHLICEK AND TSAO LLP

45) Family number: 49242119 (WO11084154A1) © PatBase

Title: VERTICAL AXIS VARIABLE GEOMETRY WIND ENERGY COLLECTION SYSTEM

Abstract: A device to convert the kinetic energy of wind into kinetic energy in the form of a rotating mass (Fig.9) and to then selectively harvest and convert the kinetic energy of the rotating mass into electrical energy using both permanent magnet and electromagnetic generators (Fig.33). The conversion of the kinetic energy of wind into mechanical kinetic energy of the rotating mass is maximized through mechanical means by varying the physical moment of inertia of the rotating mass programatically based upon real time sensor data (Figs.27A,27B). The conversion of the kinetic energy of the rotating mass into electrical energy is maximized through the programatical control of the field coil current of the electromagnetic generator based upon real time sensor data.

Classifications:

International (IPC 8-9): F03D F03D1/04 F03D11/00 F03D3/00 F03D3/04 F03D3/06 F03D7/06 (Advanced/Invention); F03D (Subclass/Invention)

CPC: F03D3/005 F03D3/049 F03D9/25 F03D17/00 F03D3/067 F03D7/06 F05B2220/7068 F05B2240/13 Y02E10/74 F03D3/04 F03D3/0436 F03D3/0472 F05B2240/211

European: F03D3/04 F03D3/06E4 Y02E10/74

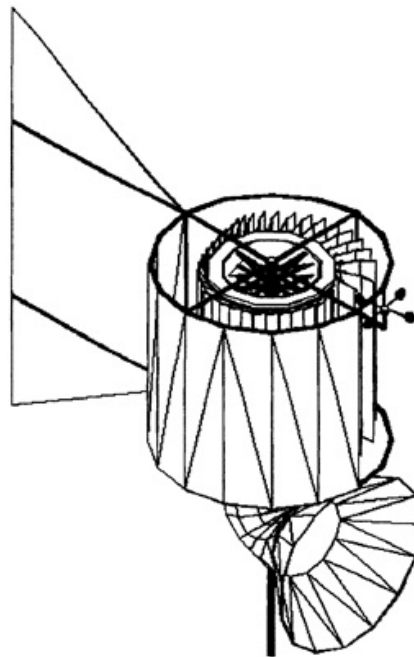


FIG.1A

Family:

Publication number	Publication date	Application number	Application date
AU2010340367 AA	20110714	AU20100340367	20100105
AU2010340367 BB	20140821	AU20100340367	20100105
CA2779641 AA	20120501	CA20102779641	20100105
CA2779641 C	20140722	CA20102779641	20100105
CN102713264 A	20121003	CN201080060804	20100105
CN102713264 B	20150304	CN201080060804	20100105
DE602010029801 D1	20160218	DE201060029801T	20100105
EP2521857 A1	20121114	EP20100842366	20100105
EP2521857 A4	20140806	EP20100842366	20100105
EP2521857 B1	20151230	EP20100842366	20100105
IL219930 A0	20120731	IL20100219930	20100105
IN05843CN2012 A	20131122	IN2012CN05843	20120704
JP2013516579 T2	20130513	JP20120548925T	20100105
JP5531113 B2	20140625	JP20120548925T	20100105
KR101409675 B1	20140618	KR20127019682	20100105
KR20120104397 A	20120920	KR20127019682	20100105
WO11084154 A1	20110714	WO2010US20145	20100105

Priority:

EP20100842366 20100105 WO2010US20145 20100105

Probable Assignee: AMIR SADE**Assignee(s):** (std): AARON MICHAEL ; AMIR SADE ; MICHAEL AARON**Assignee(s):** AARON MICHAEL CLARKSVILLE ; AARON MICHAEL548 BARNES DRIVECLARKSVILLETN37040US**Inventor(s):** (std): AARON MICHAEL ; MICHAEL AARON**Inventor(s):** AARON MICHAEL CLARKSVILLE ; AARON MICHAEL548 BARNES DRIVECLARKSVILLETN37040US**Agent(s):** AARON MICHAEL SCOTT MR; NA; CELESTINO MARCO; YAMASAKI YUKUZO; AKAMATSU TOSHIKI

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LI LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

46) Family number: 49124401 (US2011149512A)

© PatBase

Title: POWER ELECTRONIC APPARATUSES WITH COOLING ARRANGEMENTS

Abstract: A power electronic device with cooling arrangement includes a housing that accommodates power electronic components. At least two adjacent axial fans are connected to the housing for inducing an airflow from outside into the housing in order to cool the power electronic components. Furthermore, the device can include a separating wall that extends outside the housing from between the at least two adjacent axial fans in order to reduce noise caused by the fans. Such a

cooling arrangement can provide a power electronic device with effective cooling in compact size and also having an acceptable level of noise.

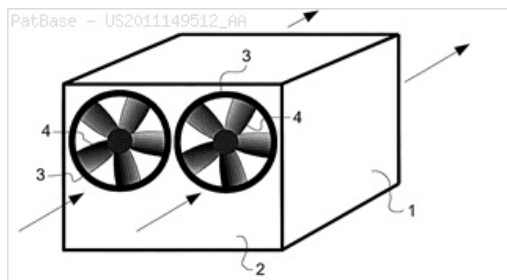
Classifications:

International (IPC 8-9): H05K7/20 (Advanced/Invention)

CPC: H05K7/20909

European: H05K7/20B10B

US: 181/281 361/692 361/695 361/695P 361/831 415/177 454/184



Family:

Publication number	Publication date	Application number	Application date
CN102105039 A	20110622	CN201010521421	20101021
CN102105039 B	20150916	CN201010521421	20101021
DE602009007865 D1	20120830	DE200960007865T	20091222
EP2339905 A1	20110629	EP20090180402	20091222
EP2339905 B1	20120627	EP20090180402	20091222
US2011149512 AA	20110623	US20100910273	20101022
US8422225 BB	20130416	US20100910273	20101022

Priority:

EP20090180402 20091222

Probable Assignee: ABB SCHWEIZ AG

Assignee(s): (std): ABB OY ; SARES MIKA ; SILVENNOINEN MIKA ARTTURI

Assignee(s): ABB SCHWEIZ AG

Inventor(s): (std): SARES MIKA ; SILVENNOINEN MIKA ARTTURI ; ARTTURI SILVENNOINEN MIKA ; MIKA SARES

Inventor(s): SILVENNOINEN MIKA ARTTURI 02610 ; SARES MIKA 05100

Agent(s): TIILIKAINEN JARKKO TAPIO; BUCHANAN INGERSOLL AND ROONEY PC

Designated states: AT BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC MK MT NL NO PL PT RO SE SI SK SM TR

47) Family number: 48463784 (WO11030174A2)

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Title: TURBINE FOR USE OF WIND KINETIC ENERGY WITHIN ITS PROPRIETARY CONSTRUCTION

Abstract: Vertical turbine type with a radial flow of air from the center outwards, intended for work within special wind power stations consisting of the system for guidance, compression and acceleration of the wind, th system for self-regulating the air flow and the system of protection from excessive wind strenght, that are with this kind of turbine forming an indivisible whole and guarantees the efficient conversion of collected wind energy. It enables use of weaker winds which could be found on many more locations. Turbine efficiently extract the kinetic energy of the wind, because it is harvested in several ways. Wind power is used for all functions of proprietary wind power stations where turbine is integral and inseparable part, so therefore they use no electricity for their work. Turbine can be made with simple tools also in countries with low level of technological equipment. Safe from failures, easy to maintain, made from cheap materials, guarantees cheap electricity.

Classifications:

International (IPC 8-9): F03D1/04 F03D3/04 (Advanced/Invention)

CPC: F05B2210/402 F05B2240/133 F05B2240/213 F05B2240/61

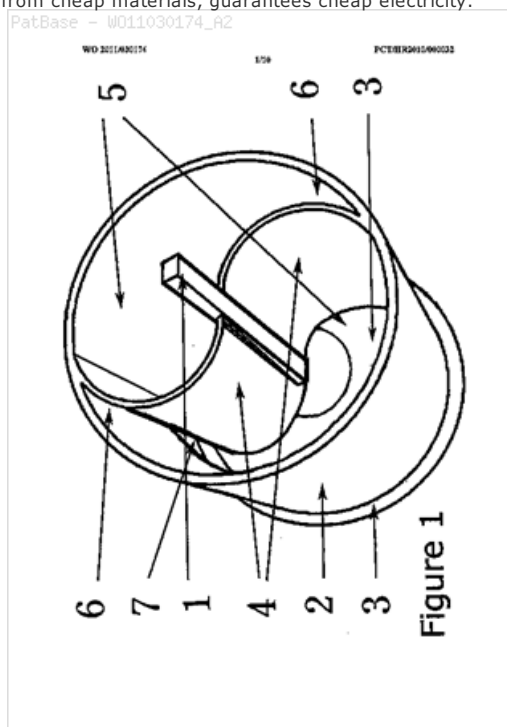
F05B2250/121 F05B2250/232 F05B2250/25 F05B2260/421

Y02B10/30 Y02E10/72 Y02E10/74 F03D3/0445 F03D1/04 F03D3/04

European: F03D1/04 F03D3/04 R05B210/402 R05B240/133

R05B240/213 R05B240/61 R05B250/121 R05B250/232 R05B250/25

R05B260/421 Y02B10/30 Y02E10/72 Y02E10/74 Y02E60/16



Family:

Publication number	Publication date	Application number	Application date
HR20090486 A2	20111231	HR20090000486	20090914

WO11030174 A2	20110317	WO2010HR00032	20100913
WO11030174 A3	20111020	WO2010HR00032	20100913

Priority:

HR20090000486 20090914

Probable Assignee: POLLAK MARIJAN

Assignee(s): (std): POLLAK MARIJAN

Assignee(s): MARIJAN POLLAK

Inventor(s): (std): POLLAK MARIJAN

Inventor(s): MARIJAN POLLAK

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

48) Family number: 45102374 (US2010133820A)

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Title: SOLAR AND WIND ENERGY CONVERTER

Abstract: An integrated hybrid energy generating system capable of converting wind and solar energy for use with an electrical generator. During the daytime, the system concurrently derives energy from both wind and solar energy sources. During the nighttime, it continuously harvests wind energy regardless of the weather condition.

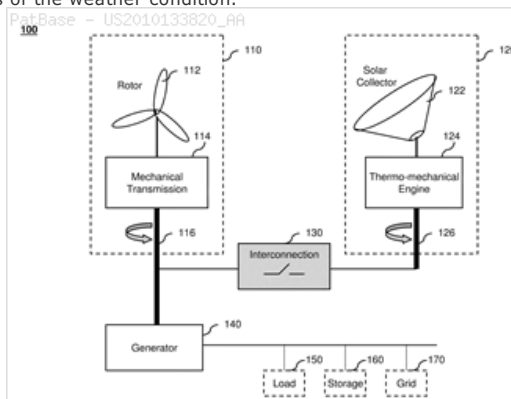
Classifications:

International (IPC 8-9): F02B63/04 F02D29/06 F02G1/04 F03D9/00 F03D9/02 F03G6/06 H02P9/04 (Advanced/Invention); F02G1/00 F03D9/00 H02P9/04 (Core/Invention); F03D9/02 F03G6/06 (Core/Non-invention)

CPC: F03D3/00 H02P9/04 Y02B10/30 Y02B10/70 Y02E10/465 Y02E10/74 H02P2101/15 F03D3/0481 F03D9/11 F03D9/255 F03D9/34 F03D9/007

European: F03D3/00 F03D9/00E H02P9/04 T02P9/00A3 Y02B10/30 Y02B10/70 Y02E10/46U Y02E10/72 Y02E10/74

US: 290/4.00RP 290/44 290/44P 290/4R 290/55 290/55S 290/7 290/7S 60/517 60/517S 60/698



Family:

Publication number	Publication date	Application number	Application date
CN102598499 A	20120718	CN201080035994	20100810
CN102598499 B	20150624	CN201080035994	20100810
TW201111628 A	20110401	TW20100126068	20100805
US2010133820 AA	20100603	US20090539426	20090811
US2011080007 AA	20110407	US20100965404	20101210
US7851935 BB	20101214	US20090539426	20090811
US7964981 BB	20110621	US20100965404	20101210
WO11019739 A2	20110217	WO2010US45055	20100810
WO11019739 A3	20110623	WO2010US45055	20100810

Priority:

US20090539426 20090811 WO2010US45055 20100810 US20100965404 20101210

Probable Assignee: JASON TSAO

Assignee(s): (std): JASON TSAO ; TSAO JASON

Inventor(s): (std): TSAO JASON ; JASON TSAO

Agent(s): OCCHIUTI ROHLICEK AND TSAO LLP; TSAO Y ROCKY ET AL

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

49) Family number: 48237563 (US2011027089A)

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Title: TURBINE ASSEMBLY AND ENERGY TRANSFER METHOD

Abstract: A turbine assembly comprises 2 or more symmetrical vanes or blades attached to a centralized shaft. The assembly may be placed into a fluid current for transferring energy therefrom. Each blade has a scoop with a relatively broader span at the top end and a relatively narrow span at the bottom, which scoop-like vane or blade resembles an inverted tear drop. Eighty-six percent of the potential energy vector is captured within the blade assembly. One end may be connected to a power generation device that will create electrical power when rotated. Certain energy transferring methodology is believed further supported by the vane or blade designed incorporated into the overall turbine assembly.

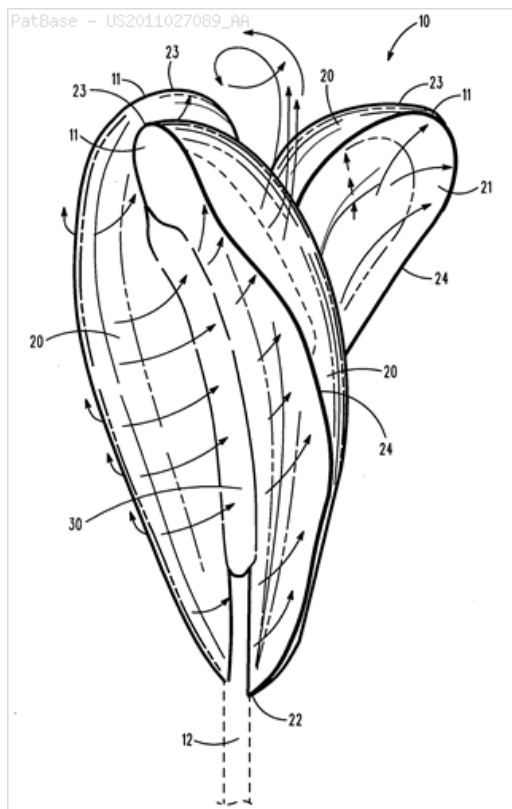
Classifications:

International (IPC 8-9): B63H5/07 F03D3/00 (Advanced/Invention)

CPC: F03D1/0608 F03D3/061 F05B2210/16 Y02E10/721 Y02E10/74

European: F03D1/06B F03D3/06D R05B210/16 Y02B10/30 Y02E10/72 Y02E10/72B Y02E10/74

US: 415/4.2 415/4.4 416/197.00AP 416/197A



Family:

Publication number	Publication date	Application number	Application date
US2011027089 AA	20110203	US20090462149	20090730
US8317480 BB	20121127	US20090462149	20090730
WO11014224 A1	20110203	WO2010US01534	20100526

Priority:

US20090462149 20090730

Probable Assignee: SCARPELLI TADD M

Assignee(s): (std): SCARPELLI TADD M

Inventor(s): (std): SCARPELLI TADD M

Agent(s): MERONI AND MERONI PC; CHARLES F; CHRISTOPHER J; MERONI CHARLES F JR

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

50) Family number: 47993836 (EP2299109A1)

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Title: DEVICE FOR INSULATING HOLLOW BLADES THAT WORK AGAINST THE FLUID CURRENT FOR A WIND TURBINE OR A WATER TURBINE WITH VERTICAL AXIS

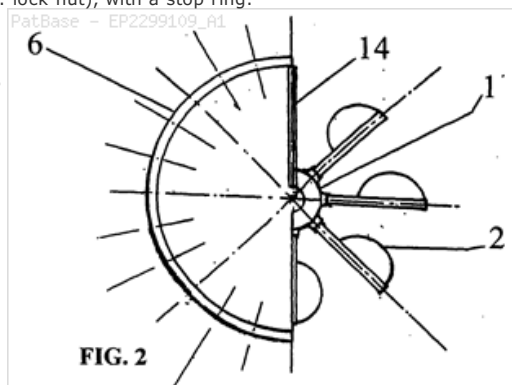
Abstract: The device has lower and upper casings (5, 6) over mounted by a tail section (14) to isolate hollow blades that rises up the wind or marine current from same force of the wind or current. The lower casing is constituted by a crown rotating around a support (3) using a ring (10) and needle bearing cages (11, 12). The crown is maintained by a plate (8) on the support. The upper casing is fixed on the lower casing and guided in rotation on an axle (7) of a wheel (1). The upper casing is maintained in translation on the axle by a nut e.g. SKF(RTM: lock nut), with a stop ring.

Classifications:

International (IPC 8-9): F03B11/00 F03B11/02 F03D11/00 F03D3/00 F03D3/04 (Advanced/Invention)

CPC: F03D3/005 F03B11/00 F05B2240/13 F05B2240/216 Y02E10/226 Y02E10/74 F03D80/00 F03D3/0472 F03D13/20 Y02E10/728

European: F03B11/00 F03D11/00 F03D3/00D F03D3/04 R05B240/13 R05B240/216 Y02E10/22D Y02E10/72 Y02E10/74



Family:

Publication number	Publication date	Application number	Application date
EP2299109 A1	20110323	EP20100290329	20100616

FR2947306 A1	20101231	FR20090003200	20090629
FR2947306 B1	20160729	FR20090003200	20090629

Priority:

FR20090003200 20090629

Probable Assignee: GERARD ANTOINE MARIE LE STER

Assignee(s): (std): LE STER GERARD ; LE STER GERARD ANTOINE MARIE

Assignee(s): GERARD ANTOINE MARIE LE STER

Inventor(s): (std): LE STER GERARD ANTOINE MARIE ; LE STER GERARD

Inventor(s): GERARD ANTOINE MARIE LE STER

Agent(s): GERARD LE STER

Designated states: AL AT BA BE BG CH CY CZ DE DK EE ES FI FR GB GR HR HU IE IS IT LI LT LU LV MC ME MK MT NL NO PL PT RO RS SE SI SK SM TR

51) Family number: 47450022 (US2010270806A)

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Title: VERTICAL AXIS WIND TURBINE

Abstract: A vertical axis wind turbine apparatus can be implemented as a support structure, atop which is located a rotatable domed housing for a blade assembly. The blade assembly includes curved blades vertically attached to a drive shaft which can either turn a magnetic rotor or be attached directly to a generator in order to produce electricity. The blade assembly receives wind through both a main inlet and a secondary inlet and expels wind through an exhaust duct. The device can be constructed from carbon fiber to prevent damage from lightning. The device is also constructed with the appearance of a tree where the support structure resembles a tree trunk and panels resembling palm fronds or branches can be attached to the domed housing. The design creates an efficient and aesthetically pleasing wind turbine that can be utilized in both residential and commercial applications.

Classifications:

International (IPC 8-9): F03D9/00 (Advanced/Invention)

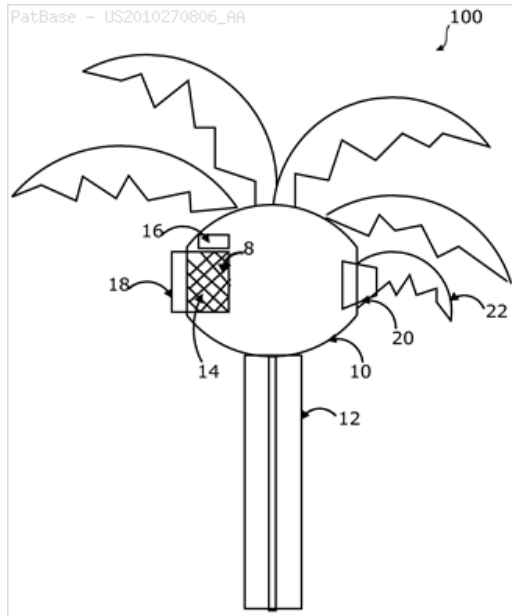
CPC: F05B2220/7068 F05B2240/912 Y02E10/728 Y02E10/74

F03D3/0472 F03D3/0436 F03D9/255 F03D13/20

European: F03D11/04 F03D3/04E R05B220/7068 R05B240/912

Y02E10/72 Y02E10/72N Y02E10/74

US: 290/55



Family:

Publication number	Publication date	Application number	Application date
US2010270806 AA	20101028	US20090429550	20090424

Priority:

US20090429550 20090424

Probable Assignee: ESTRADA VALENTINE LABRADO

Assignee(s): (std): ESTRADA VALENTINE LABRADO

Inventor(s): (std): ESTRADA VALENTINE LABRADO

Agent(s): ORTIZ AND LOPEZ PLLC

52) Family number: 47097183 (US2010260592A)

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Title: GUIDED WIND KITE FOR INCREASED WIND TURBINE POWER OUTPUT

Abstract: A wind turbine system includes a kite positioned upstream to a turbine to direct wind to the turbine, thereby increasing revolutions per minutes and power output of the turbine.

Classifications:

International (IPC 8-9): F03D F03D1/00 F03D1/04 F03D11/00

F03D3/04 F03D7/00 F03D7/02 F03D9/00

F15D1/00 (Advanced/Invention)

International (IPC 1-7): F03D

CPC: F03D5/04 F03D5/06 F05B2250/5012 Y02E10/70 F03D80/00

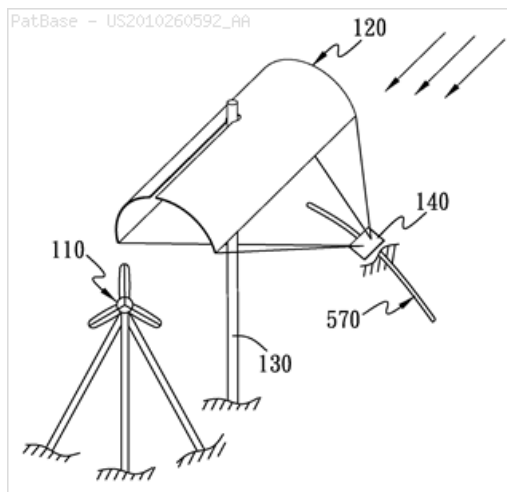
Y02E10/72 F03D1/04

European: F03D11/00 F03D5/04 F03D5/06 R05B250/5012

Y02E10/70 Y02E10/72

US: 415/1 415/13 415/13S 415/149.2 415/156 415/157 415/1P

415/208.1 415/208.100S 415/4.3 415/7 416/1 416/85 416/9



Family:

Publication number	Publication date	Application number	Application date
CA2696226 AA	20101013	CA20102696226	20100309
CN101858301 A	20101013	CN200910166805	20090831
CN101858301 B	20121205	CN200910166805	20090831
DE102009028885 A1	20101014	DE200910028885	20090826
DE102009028885 B4	20130523	DE200910028885	20090826
IN00603CH2010 A	20101126	IN2010CH00603	20100308
US2010260592 AA	20101014	US20090484257	20090615
US8061963 BB	20111122	US20090484257	20090615

Priority:

US20090212500P 20090413 US20090484257 20090615

Probable Assignee: CHEN XUNQIN

Assignee(s): (std): CHEN FRANKLIN F K ; CHEN FRANKLIN FK ; CHEN XUNQIN

Assignee(s): FRANKLIN F K CHEN

Inventor(s): (std): CHEN FRANKLIN F K ; CHEN FRANKLIN FK

Inventor(s): FRANKLIN F K CHEN

Agent(s): CUSTOMER NO 70416 PERKINS COIE LLP; PERKINS COIE LLP; AARON

53) Family number: 47487394 (US2010276940A)

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Title: WIND POWER GENERATOR SYSTEM, APPARATUS, AND METHODS

Abstract: A wind generator turbine apparatus 100 with (a) a base 1 for supporting the apparatus 100; (b) a base mount 9 mounted on the base 1; (c) a permanent magnet generator (PMG) 6 seated on the base mount 9, the PMG 6 comprising an aligned shaft 13 extending along an elongated axis X-X defined by the shaft 13 and adapted to generate electricity when caused to spin circularly; and (d) a wind turbine 101. The wind turbine 101 comprises i. a housing 8 mounted over and around the shaft 13 of the PMG 6 about the axis X-X having a first end 81 and a second end 82; ii. a plurality of blades 4 (1) circumferentially arranged about the axis X-X defined by the shaft 13 of the housing 8, (2) extending along with the axis X-X of the shaft 13, and (3) mounted between a first 2 and a second 3 linkage member, wherein the first linkage member 2 is mounted on the first end 81 of the housing 8 and the second linkage member 3 is mounted on the second end 82 of the housing 8; iii. a linkage cap 5 mounted on the first linkage member 2 and the first end 81 of the housing 8, wherein the shaft 13 is caused to spin about the axis X-X when wind force is applied to the blades 4 to generate electricity. The apparatus 100 can be used in airports, roadways, or rail systems to generate electricity in the presence of man made air. Systems and methods for harnessing aircraft wind energy also are disclosed.

Classifications:

International (IPC 8-9): F03D3/06 F03D9/00 (Advanced/Invention)

CPC: F03D3/061 F03D3/005 F03D3/062 F05B2240/40 F05B2240/9113 Y02E10/728 Y02E10/74 F03D9/255 F03D9/43 F03D13/20 Y02B10/30

European: F03D11/04 F03D3/00D F03D3/06D F03D3/06E R05B240/40 R05B240/9113 Y02E10/72 Y02E10/72N Y02E10/74

US: 290/44 290/55 290/55P



Family:

Publication number	Publication date	Application number	Application date
US2010276940 AA	20101104	US20100661858	20100325
US8378518 BB	20130219	US20100661858	20100325

Priority:

US20090211100P 20090326 US20100661858 20100325

Probable Assignee: GRINSTEAD ROBERT LEE III

Assignee(s): (std): GRINSTEAD III ROBERT LEE ; KHAVARI ABOLFAZL ; TERRA TELESIS INC

Assignee(s): GRINSTEAD ROBERT LEE III
Inventor(s): (std): GRINSTEAD III ROBERT LEE ; KHAVARI ABOLFAZL
Agent(s): BUTZEL LONG

54) Family number: 46869264 (US2010236230A)

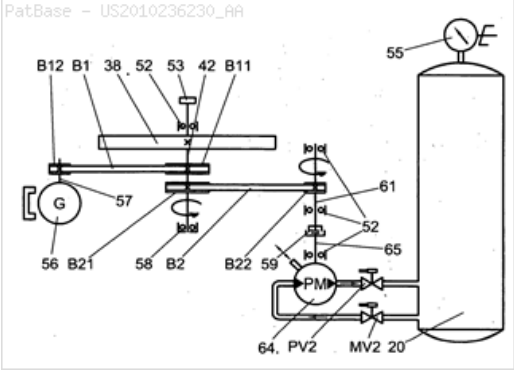
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Title: AIRFLOW POWER INSTALLATIONS

Abstract: Power installations versions are proposed for conversion of airflow energy by a turbine and pump into compressed air energy used by a pneumo-motor or/and by an electro-generator associated with a control system. One installation comprises turbine units arranged in box-sections serving as walls and roof of a truck. The turbine unit includes X-shaped members supporting a shaft with a turbine driven by resistance airflow appearing during the movement of truck. The rotation of turbine is conveyed to a pump, charging a tank with compressed air, used for driving the truck. Another installation additionally includes a conventional engine driving one pair of wheels, while the pneumo-motor drives the other pair. A stationary installation includes a shutter coupled with a vane configured for creation of an unevenly distributed airflow applied to the turbine, a gear, a pump charging a tank with compressed air, a brake mechanism for regulation of the turbine's speed.

Classifications:

International (IPC 8-9): B60K16/00 F03D9/00 F03D9/02 F03D9/25 F04D13/04 F15B1/027 F15B11/064 (Advanced/Invention); F03D9/00 F04D13/02 F15B11/00 (Core/Invention)
CPC: Y02E10/725 B60K2016/006 F05B2240/941 Y02B10/30 Y02E10/728 Y02T10/90 F03D13/20 F03D3/0463 F03D9/17 F03D9/28 F03D9/32 F03D15/10 F03D9/25 B60K16/00 Y02E60/15
European: B60K16/00 F03D11/04 F03D9/00C L60K16/00B R05B240/941 Y02B10/30 Y02E10/72 Y02E10/72N Y02T10/90
US: 180/165 180/2.2 290/55 290/55P 290/55S 417/405 417/405S 60/398 60/398S 60/409 60/409P



Family:

Publication number	Publication date	Application number	Application date
US2010236230 AA	20100923	US20090381823	20090317
US2011156402 AA	20110630	US20110932650	20110303
US7997371 BB	20110816	US20090381823	20090317
US10018181 BB	20180710	US20110932650	20110303

Priority:

US20090381823 20090317 US20110932650 20110303

Probable Assignee: KHYMYCH VASYL

Assignee(s): (std): KHYMYCH VASYL

Inventor(s): (std): KHYMYCH VASYL

Agent(s): ALEKSANDR SMUSHKOVICH; ALEKSANDR

55) Family number: 46625361 (US2010213716A)

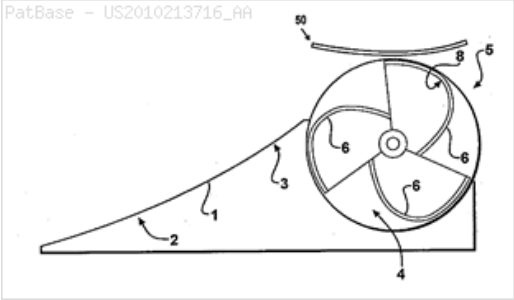
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Title: FLUID FLOW ENERGY CONCENTRATOR

Abstract: An energy conversion system for converting energy of naturally occurring fluid flow into output power. The energy conversion system includes an accelerator plate that has a leading edge and an upper surface that is substantially linearly inclined from the leading edge and transitions into a gradually increasing inclined shape so as to receive a fluid flow and form a vortex at a rear portion of the accelerator plate, a turbine positioned at the rear of the accelerator to rotate in the vortex created by the accelerator plate, and a deflector plate position down stream of the accelerator plate and adjacent the turbine. The cross-sectional shape of the accelerator plate has a duckbill shape which causes the fluid flow to increase up to five times and before turbulence is created and directs the increased air flow onto the blades of the turbine. The deflector plate can also have a duckbill cross-sectional shape.

Classifications:

International (IPC 8-9): F03D11/00 F03D3/04 F03D9/00 (Advanced/Invention); F03D11/00 F03D3/00 F03D9/00 (Core/Invention)
CPC: F03D3/0454 F03D3/0481 F05B2240/213 F05B2240/2212 F05B2240/2213 F03D9/30 F03D13/20 F03D1/04 F03D3/002 F03D3/0445 F05B2240/13 Y02E10/72 Y02E10/74
European: F03D1/04 F03D3/00C F03D3/04E2 F03D3/04E2B F03D3/04E4B R05B240/13 R05B240/213 R05B240/2212 R05B240/2213 Y02E10/72 Y02E10/74
US: 290/54 290/54P 415/1 415/1S 415/208.1 415/208.100P 415/208.100S



Family:

Publication number	Publication date	Application number	Application date
US2010213716 AA	20100826	US20100695684	20100128
US2010215488 AA	20100826	US20090391713	20090224
WO10099025 A2	20100902	WO2010US24578	20100218
WO10099025 A3	20101216	WO2010US24578	20100218

Priority:

Probable Assignee: SANTORO WIND HARVESTER INC**Assignee(s):** (std): SANTORO STEPHEN P ; SANTORO WIND HARVESTOR INC**Assignee(s):** SANTORO WIND HARVESTER INC**Inventor(s):** (std): SANTORO STEPHEN P**Agent(s):** BRINKS HOFER GILSON AND LIONE/ANN ARBOR; BRINKS HOFER GILSON AND LIONE ANN ARBOR; GZYBOWSKI MICHAEL S**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PE PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**56) Family number: 4552582** (US2010156103A)

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Title: SYTEM AND METHOD FOR GENERATING ELECTRICITY

Abstract: A system for generating electricity including a substantially frustoconical shaped scoop having a fluid intake opening at a larger end for receiving fluid flow, and a fluid outlet opening at a smaller end for allowing the fluid flow to exit the scoop. The scoop is rotatably mounted to a tower. One or more sets of turbine blades are located within the scoop in relative proximity to the smaller end, wherein the set of turbine blades are caused to rotate by the fluid flow. One or more turbines are located within the tower, and one or more shafts operatively connect the one or more sets of turbine blades to the one or more turbines to transmit torque of the one or more sets of turbine blades to the one or more turbines to generate electricity.

Classifications:**International (IPC 8-9):** F03B13/00 F03D1/04 F03D9/00 F03D9/02 H02P9/04 (Advanced/Invention);

F03B13/00 F03B13/10 (Advanced/Non-invention);

F03B13/00 F03D9/00 (Core/Invention)

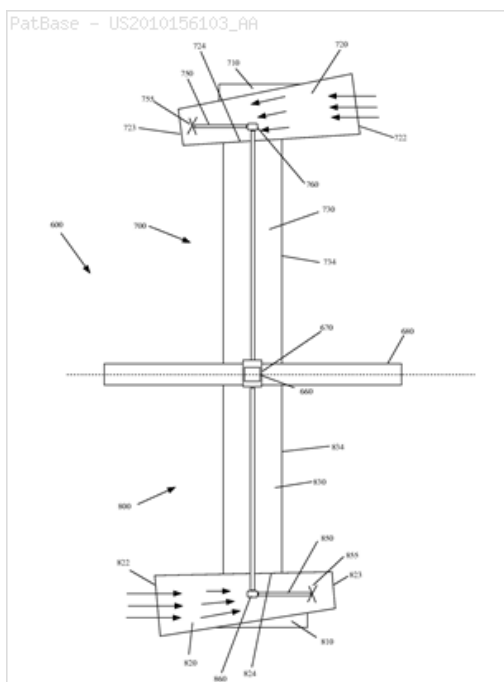
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F05B2240/131 Y02B10/30 Y02B10/70 F03D1/02 F03D9/11

F03D80/00 F03D9/10 F03D9/35 F03D1/04 Y02E10/725

European: F03D1/04 F03D3/04 R05B240/131 R05B240/911

Y02B10/30 Y02B10/70 Y02E10/72 Y02E10/74

US: 290/43 290/44 290/50 290/50P 290/52 290/52P 290/52S 290/53 290/54 290/54S 290/55 290/55P 290/55S**Family:**

Publication number	Publication date	Application number	Application date
US2010156103 AA	20100624	US20100716015	20100302
US2010156105 AA	20100624	US20100715928	20100302
US2010156107 AA	20100624	US20090368036	20090209
US2010156108 AA	20100624	US20100715969	20100302
US2011309626 AA	20111222	US20100967950	20101214
US7821153 BB	20101026	US20090368036	20090209
US7872366 BB	20110118	US20100715969	20100302
US7875992 BB	20110125	US20100715928	20100302
US7948109 BB	20110524	US20100716015	20100302
US8421265 BB	20130416	US20100967950	20101214

Priority:

US20090368036 20090209

US20100716015 20100302

US20100715928 20100302

US20100967950 20101214

US20100715969 20100302

Probable Assignee: GRAYHAWKE APPLIED TECHNOLOGIES**Assignee(s):** (std): GRAY R O NEAL ; GRAYHAWKE APPLIED TECHNOLOGIES**Inventor(s):** (std): GRAY R O NEAL**Inventor(s):** GRAY R O'NEAL**Agent(s):** AMSTER ROTHSTEIN AND EBENSTEIN LLP**57) Family number: 46170396** (US2010181838A)

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Title: ROOF POWER GENERATOR

Abstract: A device to generate electricity for building may include a rotating heat electric generating device including turbine blades to rotate in response to heat escaping an attic of the building, a DC/AC power inverter to convert the energy generated by the rotating turbine blades into electricity energy, a storage battery device to store the electrical energy, a switch device to receive the electrical energy from the storage battery device and to switch between a electric bus of the building or a utility service provider, and a controller to control the storage battery device and the switch device so the storage battery device selectively charges and discharges the electric power and so the switch device switches between the building and the utility service provider. The DC/AC power inverter may convert the DC power from the storage battery device to AC power for the splitter switch device, and the apparatus may include a solar electric generating device to generate electric power from the sun's rays. The solar generating electric device may be connected to an electric motor, and the solar generating electric device may be connected to the storage battery device.

Classifications:

International (IPC 8-9): F03D9/02 H02J3/38 (Advanced/Invention);

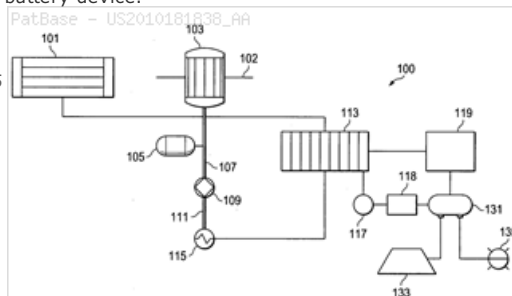
F03D9/00 H02J3/38 (Core/Invention)

CPC: F05B2220/604 F05B2260/24 Y02B10/30 Y02B10/70 Y02E10/465 Y02E10/725 Y10T307/658 F03D9/34 F03D9/007 F03D9/11 F03D9/25

European: F03D9/02B R05B220/604 R05B260/240 Y02B10/30

Y02B10/70 Y02E10/46U Y02E10/72H

US: 290/55 290/55S 307/72 307/72P



Family:

Publication number	Publication date	Application number	Application date
US2010181838 AA	20100722	US20090356132	20090120

Priority:

US20090356132 20090120

Probable Assignee: FARRIS WAYNE

Assignee(s): (std): FARRIS WAYNE

Inventor(s): (std): FARRIS WAYNE

Agent(s): WILSON DANIEL SWAYZE JR

58) Family number: 44434735 (US2010135768A)

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Title: COLUMN STRUCTURE WITH PROTECTED TURBINE

Abstract: A turbine system includes a turbine positioned so that its blades are exposed during at least part of their rotation to a region of fluid flow accelerated by a columnar structure, such as a building or a bridge pylon. A protective casing moves to isolate the turbine blades from the fluid flow, thereby protecting the turbine from overpowering conditions. Upwind and downwind fairings may be used when retrofitting pre-existing buildings. Turbines may be positioned on opposing sides of a building. Multiple turbine modules may be positioned in line along peripheries of a building. Turbines may be mounted on in-water structures, such as buoys.

Classifications:

International (IPC 8-9): B60P3/00 B63B35/44 F01D5/02 F03B1/00 F03B11/02 F03B13/00 F03B13/10 F03B13/12 F03B13/14 F03B13/22 F03B13/26 F03B15/06 F03B17/06 F03B3/00 F03B3/12 F03B3/14 F03D1/00 F03D1/06 F03D11/00 F03D11/02 F03D11/04 F03D13/20 F03D3/00 F03D3/04 F03D3/06 F03D5/00 F03D7/02 F03D7/04 F03D9/00 F03D9/11 F03D9/25 F03D9/34 H02J3/32 H02J7/34 H02K11/04 H02K7/10 H02K7/18 H02P9/04 (Advanced/Invention);

B63B1/12 B63B35/44 F03B13/12 F03B13/22 F03B3/12 F03D1/06 F03D11/00 F03D11/02 F03D3/04 F03D9/00 (Advanced/Non-invention);

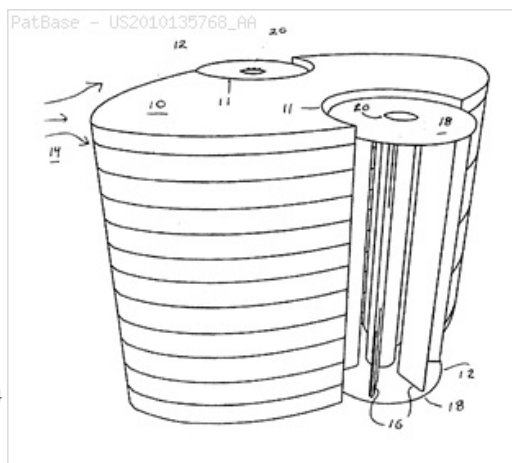
B60P3/00 B63B35/44 F03B11/00 F03B13/00 F03B15/00 F03B3/00 F03D1/00 F03D11/00 F03D3/00 F03D7/00 F03D9/00 H02K7/18 (Core/Invention);

F03B1/00 F03D11/00 F03D5/00 (Core/Non-invention)

CPC: F03B13/12 F03D7/0244 F03D7/0264 F05B2240/941 H02K7/1807 F05B2240/641 Y10S415/908 F05B2240/913 F05B2240/142 Y02E10/726 F03D1/00 F03D1/0608 F03D3/005 Y02E10/72 F03D3/061 F05B2220/25 F03B13/10 F03B13/264 F03D7/0216 F03D1/0666 F03D7/041 F03D3/002 F03B3/12 F03B13/14 F03B13/22 B63B1/121 B63B35/44 B63B2035/446 B63B2035/4466 F05B2240/243 F05B2240/932 F05B2250/25 Y02E10/727 F03D13/25 H02K7/1008 H02K7/183 H02K11/046 F03D9/11 F03D13/40 F03D9/003 F03D9/255 F01D5/023 H02K7/1823 H02K7/1004 H02J3/32 H02J7/34 F05B2220/32 F05B2240/93 F05B2220/706 F03D9/25 Y02E10/725 F05B2240/2022 F05B2240/33 Y02E10/723 F03D3/02 F03D9/34 F03D3/0454 F03B17/063 F03D3/0472 F03D3/0481 F05B2240/912 Y02B10/30 Y02B10/70 Y02E10/28 Y02E10/728 Y02E10/74 F03B17/061 Y02E10/722 F03D9/32 F03D13/20 F03D13/10 F03D9/008 F03D1/0658 F03D7/0236 F03D7/0268 F03D15/00 F05B2240/2213 F05B2240/313 Y02E10/38 Y02E10/721

European: B63B35/44 F03B13/10 F03B13/26C F03B17/06B F03B17/06C2 F03D1/00B F03D1/00D F03D1/06C2 F03D11/02 F03D11/04 F03D3/04E4 F03D3/04E4B F03D3/06D F03D7/02D6 F03D7/02K2 L63B1/12B L63B35/44E7 L63B35/44E9 R05B220/25 R05B240/142 R05B240/2213 R05B240/243 R05B240/313 R05B240/912 R05B240/932 R05B240/941 R05B250/25 Y02B10/30 Y02B10/70 Y02E10/28 Y02E10/38 Y02E10/72 Y02E10/72B Y02E10/72D Y02E10/72F Y02E10/72H Y02E10/72J Y02E10/72L Y02E10/72N Y02E10/74

US: 1/1 290/43 290/50 290/50P 290/52 290/52S 290/54 290/54P 290/54S 290/55 290/55P 290/55S 415/1 415/13 415/13S 415/151 415/151S 415/4.3 415/4.5 415/60 415/60S 415/7 415/7P 415/908 416/120 416/142 416/146.00RS 416/146R 416/147 416/147S 416/15 416/195 416/195S 416/223.00RS 416/223R 416/85 416/85P



Family:

Publication number	Publication date	Application number	Application date
CA2734728 AA	20110218	CA20092734728	20090821
CA2734748 AA	20100225	CA20092734748	20090821
CA2734772 AA	20100225	CA20092734772	20090821
CA2734772 C	20160802	CA20092734772	20090821
CA2734773 AA	20100225	CA20092734773	20090821
CN102171443 A	20110831	CN200980138939	20090821

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CN106164479 A	20161123	CN201580017097	20150130
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GB2475217 A1	20110511	GB20110004678	20090821
GB2475217 B2	20130320	GB20110004678	20090821
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US2010140951 AA	20100610	US20090461719	20090821
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US2015219072 AA	20150806	US20150609732	20150130
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WO10021731 A3	20100520	WO2009US04767	20090821
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Priority:

US20080189950P 20080822	US20080193395P 20081124	US20090202126P 20090130
US20090202189P 20090204	US20090213597P 20090623	US20090213829P 20090720
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WO2015US13692 20150130	US20160078440 20160323	US20170467352 20170323

Probable Assignee: NATURAL POWER CONCEPTS INC

Assignee(s): (std): HUANG STUART ; NATURAL POWER CONCEPTS INC ; NATURAL POWER CONCEPTS INCC ; PITRE JOHN

Assignee(s): NATURAL POWER CONCEPTS INC US

Inventor(s): (std): PITRE JOHN ; JOHN PITRE ; HUANG STUART

Agent(s): SMART AND BIGGAR; SMART AND BIGGAR LLP; STEPTOE AND JOHNSON LLP; CONNOLLY BOVE LODGE AND HUTZ LLP; NOVAK DRUCE CONNOLLY BOVE AND QUIGG LLP; POLSINELLI PC; WATKINS SCOTT D ET AL; WATKINS SCOTT

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BN BR BW BY BZ CA CF CG CH CI CL CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IR IS IT JP KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PA PE PG PH PL PT QA RO RS RU RW SA SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TH TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

59) Family number: 44514598 (US2010143096A)

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Title: WIND MANIPULATOR AND TURBINE

Abstract: A vertical axis turbine machine for converting fluid flow into rotational energy and having a housing with an inlet, a turbine rotor having two spiral turbine blade sets, namely an upper blade set and a lower blade set, mounted on a common vertical axis in the housing, and in which the upper blade set twists in one direction and in which the lower blade set twists in the opposite direction, the upper and lower blade sets meeting at a central area of the rotor midway between top and bottom, and flow guides in the housing guiding incoming fluid flow onto the turbine rotor, and the rotor being surrounded by a plurality of impeller vanes extending vertically within the housing, and the housing having upper and lower outlet ducts, and outlets rearwardly of said housing.

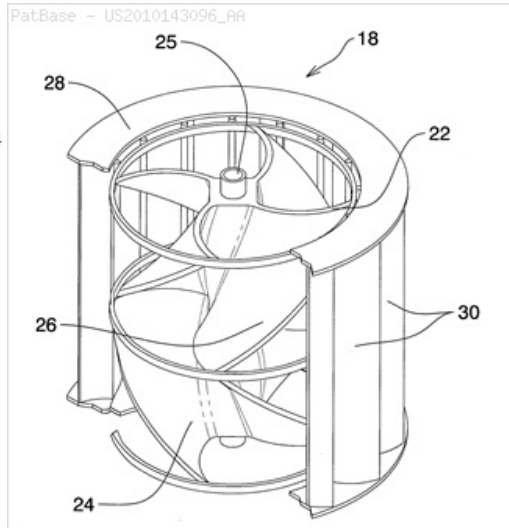
Classifications:

International (IPC 8-9): F03B3/12 F03B3/16 F03D3/02 F03D3/04 F03D7/00 (Advanced/Invention); F03B3/00 F03D3/00 (Core/Invention)

CPC: F03D3/0427 F03D13/20 F03D3/02 F05B2240/13 F05B2250/15 Y02E10/74 Y02E10/728

European: F03D3/02 F03D3/04 R05B240/13 R05B250/15 Y02E10/74

US: 415/4.2 415/60 415/60P 416/176



Family:

Publication number	Publication date	Application number	Application date
CA2676363 AA	20100221	CA20092676363	20090821
CA2676363 C	20140415	CA20092676363	20090821
US2010143096 AA	20100610	US20090461712	20090821
US8360713 BB	20130129	US20090461712	20090821

Priority:

US20080190694P 20080821 US20090461712 20090821

Probable Assignee: PURUS POWER CORP

Assignee(s): (std): CAROSI CLAUDIO D ; CAROSI MARIA D

Assignee(s): PURUS POWER CORP

Inventor(s): (std): CAROSI MARIA D ; CAROSI CLAUDIO D

Agent(s): ROLSTON GEORGE A; GEORGE A ROLSTON

60) Family number: 44151475 (US2009322095A)

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Title: WIND TURBINE

Abstract: A wind turbine having one or more sets of opposing magnets to create an opposing force between a turbine support and a turbine rotor great enough to form a space between them thereby reducing friction between the turbine support and the turbine rotor. The reduction of friction between the turbine rotor and the turbine support allows for an increase in energy production and scale of the wind turbines.

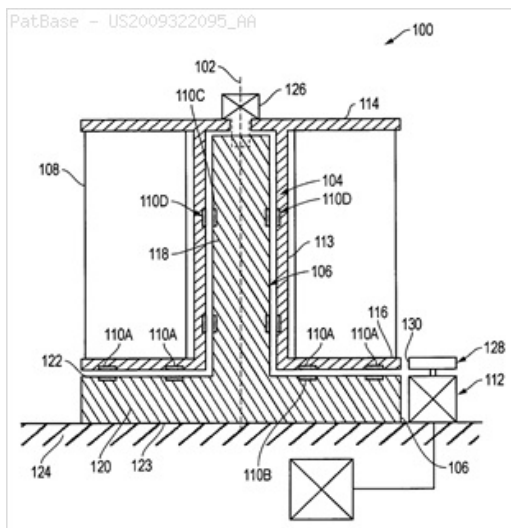
Classifications:

International (IPC 8-9): F01D1/02 F01D9/00 F03B1/04 F03B15/06 F03B3/16 F03B7/00 F03D1/00 F03D1/02 F03D1/04 F03D1/06 F03D11/00 F03D11/02 F03D11/04 F03D13/20 F03D13/40 F03D15/00 F03D17/00 F03D3/00 F03D3/04 F03D3/06 F03D7/00 F03D7/02 F03D7/06 F03D80/00 F03D80/70 F03D9/00 F03D9/25 F03D9/28 F03D9/32 F04D29/44 F04D29/54 F16C32/04 F16C39/06 H02K7/09 H02P9/04 (Advanced/Invention); B64C11/00 B64C27/00 H02K7/09 (Advanced/Non-invention); F03D11/00 F03D3/00 (Core/Invention)

CPC: F03D3/005 F05B2240/50 H02K7/09 F03D7/0224 F03D7/0204 F05B2240/13 F05B2240/511 F05B2240/941 F16C32/0431 F16C39/066 Y02B10/30 F03D1/0675 F03D3/062 F03D11/02 F03D80/00 F03D15/00 F03D80/70 F03D13/20 F03D7/06 F03D17/00 Y02E10/721 F03D1/005 F03D9/002 F03D13/40 F16C2360/31 F03D9/10 F03D9/255 F03D9/003 F03D11/0008 F03D9/25 F03D9/28 F03D3/04 F03D9/30 F03D3/049 F03D3/02 F03D9/32 F03D3/0409 F03D9/11 F03D9/12 F03D9/257 F03D15/10 Y02E10/74 Y02E10/722 Y02E10/725 Y02E10/728 Y02P90/50 Y02E60/16

European: F03D11/00B F03D11/02 F03D3/00D F03D3/04B2 F03D3/04D F03D3/04E4 F03D3/04E4B R05B240/13 R05B240/50

R05B240/511 R05B240/941 Y02B10/30 Y02E10/72 Y02E10/74
US: 1/1 290/44 290/55 290/55P 310/90.5 415/1 415/121.3 415/151
 415/191 415/2.1 415/4.2 415/4.200P 416/1 416/204A 416/205
 416/244A 417/423.4



Family:

Publication number	Publication date	Application number	Application date
GC4378 A	20161004	GC2008P011685	20080910
GC5095 A	20170306	GC2008P011686	20080910
US2009322095 AA	20091231	US20080215233	20080626
US2009324383 AA	20091231	US20080215232	20080626
US2013140826 AA	20130606	US20120607270	20120907
US2013147202 AA	20130613	US20120607167	20120907
US2014105722 AA	20140417	US20130107922	20131216
US2014105724 AA	20140417	US20130107951	20131216
US2014203565 AA	20140724	US20130854736	20130401
US2015226182 AA	20150813	US20150691695	20150421
US2015226184 AA	20150813	US20150696449	20150426
US2015330360 A9	20151119	US20130107951	20131216
US2016186728 AA	20160630	US20160052597	20160224
US2016348648 AA	20161201	US20160224721	20160801
US2016348649 AA	20161201	US20160232324	20160809
US2018066631 AA	20180308	US20170804972	20171106
US8513826 BB	20130820	US20080215233	20080626
US8608425 BB	20131217	US20120607167	20120907
US8608426 BB	20131217	US20120607270	20120907
US9133821 BB	20150915	US20130107922	20131216
US9404475 BB	20160802	US20150691695	20150421
US9410530 BB	20160809	US20150696449	20150426
US9605652 BB	20170328	US20130107951	20131216
US9803624 BB	20171031	US20160232324	20160809
US9810201 BB	20171107	US20160224721	20160801
US9856858 BB	20180102	US20130854736	20130401
WO09157913 A1	20091230	WO2008US09801	20080815
WO09157914 A1	20091230	WO2008US09803	20080815

Priority:

US20080215232 20080626	US20080215233 20080626	US20120607270 20120907
US20120607167 20120907	US20130854736 20130401	US20130107922 20131216
US20130107951 20131216	US20150691695 20150421	US20150696449 20150426
US20160052597 20160224	US20160224721 20160801	US20160232324 20160809
US20170804972 20171106		

Probable Assignee: HOVER ENERGY LLC

Assignee(s): (std): MAZUR ED ; WARD ROBERT O ; MAZUR EDWARD L ; REGENEDYNE LLC ; HOVER ENERGY LLC ; MCLELLAND ALBERT

Assignee(s): VAN DYKE LAW ; BEACH GENTRY ; BEACH GENTRY T ; ED MAZUR ; GENAM LLC

Inventor(s): (std): MAZUR EDWARD ; MAZUR EDWARD L ; WARD ROBERT O ; MAZUR ED

Inventor(s): ED MAZUR

Agent(s): SULEIMAN I AL AMMAR LAW OFFICE; DAMBROSIO AND ASSOCIATES PLLC; VAN DYKE LAW; RAYMOND VAN; RAYMOND; D AMBROSIO JO KATHERINE

Designated states: AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KR KZ LA LC LR LK LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW

61) Family number: 46653043 (US7786611B)

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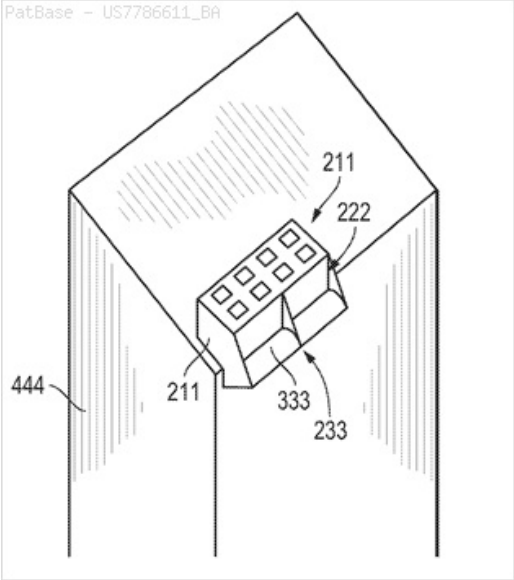
Title: SYSTEM AND METHOD FOR GENERATING WIND POWER FROM A VERTICAL STRUCTURE

Abstract: A ducting structure for generating wind power from a vertical structure. The ducting structure includes a main housing sized and shaped to be coupled to a wind turbine and located on the vertical structure. The main housing includes a vertically oriented aperture having a first duct leading to the coupled wind turbine and a horizontally oriented aperture having a second duct leading to the coupled wind turbine. The vertically oriented aperture captures a prevailing wind and the

horizontally oriented aperture captures an updraft flowing upwardly along the vertical structure. The captured updraft and the prevailing wind are guided through the first and second ducts past the coupled wind turbine.

Classifications:

International (IPC 8-9): F03D9/00 (Advanced/Invention);
F03D9/00 (Core/Invention)
CPC: F05B2240/13 F05B2240/911 Y02B10/30 Y02E10/465
Y02E10/725 Y02E10/728 F03D1/04 F03D9/25 F03D9/34
European: F03D1/04 F03D9/00 R05B240/13 R05B240/911
Y02B10/30 Y02E10/46U Y02E10/72 Y02E10/72H Y02E10/72N
US: 290/44 290/55 415/4.2



Family:

Publication number	Publication date	Application number	Application date
US7786611 BA	20100831	US20090483707	20090612

Priority:

US20080060809P 20080612 US20090483707 20090612

Probable Assignee:

LEON DAVID

Assignee(s): (std):

LEON DAVID ; MANAUGH THOMAS

Inventor(s): (std):

MANAUGH THOMAS ; LEON DAVID

Agent(s):

MICHAEL

62) Family number: 43839506 (US2010109326A)

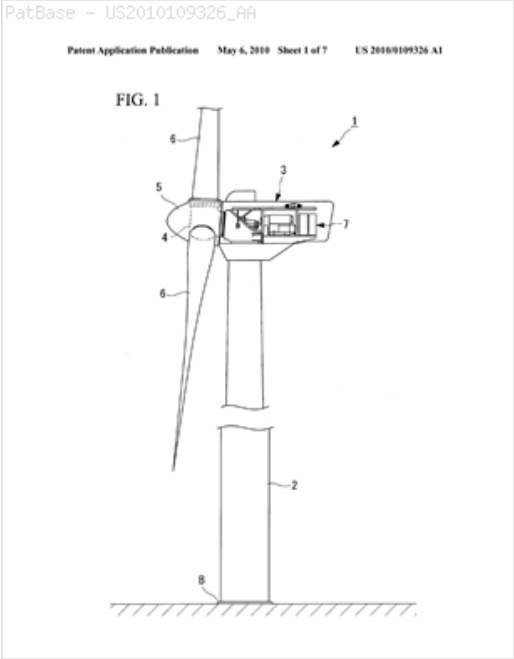
© PatBase

Title: FAN UNIT FOR WIND POWER GENERATOR AND WIND POWER GENERATOR

Abstract: To provide a fan unit for a wind power generator and a wind power generator, which are capable of preventing a loss of a flow at a flow port from increasing and capable of preventing a pressure loss of a heat exchanger from increasing. A fan unit for a wind power generator (52) having an axial fan (54) for discharging air in a nacelle of the wind power generator to a rear side of the nacelle, the axial fan (54) being provided on a floor (F) of the nacelle, and an equipment (51) of the wind power generator provided in front of the axial fan (54) in a direction of a rotation axis (L) is characterized by including a rectification part (56) for adjusting distribution of the flow rate of air flowing into the axial fan (54).

Classifications:

International (IPC 8-9): F03D1/06 F03D11/00 F04D29/54 F04D29/56
H02P9/04 (Advanced/Invention);
F03D1/00 F03D11/00 F04D29/40 H02P9/04 (Core/Invention);
F03D11/00 (Core/Non-invention)
CPC: F04D25/08 F04D15/029 Y02E10/721 Y02E10/726 F03D9/25
F03D13/20 F03D80/60
European: F03D11/00 F04D15/02F F04D25/08 R05B260/20
Y02E10/72B Y02E10/72D Y02E10/72J
US: 290/44 290/44P



Family:

Publication number	Publication date	Application number	Application date
JP2009250214 A2	20091029	JP20080102755	20080410
TW200942696 A	20091016	TW20080145741	20081126
US2010109326 AA	20100506	US20080374140	20081110
WO09125513 A1	20091015	WO2008JP70438	20081110

Priority:

JP20080102755 20080410 WO2008JP70438 20081110

Probable Assignee: MIITSUBISHI HEAVY IND LTD**Assignee(s):** (std): HIRAI SHIGETO ; MITSUBISHI HEAVY IND LTD ; SATO SHINSUKE ; SATO TOSHIHIRO ; SHIRAISHI TATSUYA**Assignee(s):** MITSUBISHI HEAVY INDUSTRIES LTD ; MIITSUBISHI HEAVY IND LTD**Inventor(s):** (std): SATO SHINSUKE ; HIRAI SHIGETO ; SATO TOSHIHIRO ; SHIRAISHI TATSUYA ; HIRAI SHIGETAKA**Agent(s):** KANESAKA BERNER AND PARTNERS LLP; FUJITA TAKAHARU ET AL**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT KE KG KM KN KP KR KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN ST SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**63) Family number: 42759761 (US2009001724A)**

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Title: METHOD AND APPARATUS FOR CONTROLLING VERTICAL AXIS WIND POWER GENERATION SYSTEM

Abstract: Provided are an apparatus and method for controlling a vertical axis wind power generation system that controls the rotation of guide vanes according to wind direction and speed, appropriately controls a direction of wind passing over an impeller, thereby maintaining a rotational speed generating the maximum power, maintains output power of a generator as rated power according to wind direction and speed, and stops the generator when a low or high wind speed outside a setting value range, an error in a structure, a fault in a braking unit, and/or a fault in guide vanes is detected.

Classifications:**International (IPC 8-9):** F03D3/00 F03D7/06

F03D9/00 (Advanced/Invention);

F03D3/00 F03D7/06 (Advanced/Non-invention);

F03D3/00 F03D7/00 F03D9/00 (Core/Invention)

CPC: F03D7/06 F03D3/0418 F05B2260/90 F05B2270/1011

F05B2270/3201 Y02E10/74

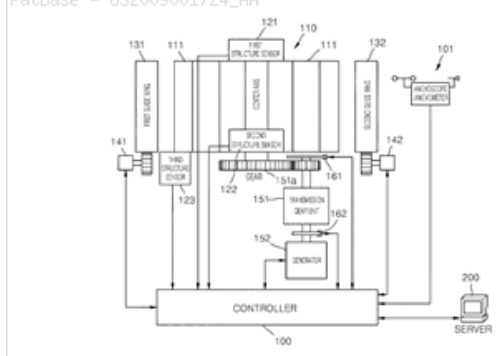
European: F03D3/04B2 F03D7/06 R05B260/90 R05B270/1011

R05B270/3201 Y02E10/74

US: 290/44 290/44P 416/23 416/23S 416/25 416/25S 416/32

416/32S

PatBase - US2009001724_AA

**Family:**

Publication number	Publication date	Application number	Application date
CN101334005 A	20081231	CN200810110289	20080626
KR100883099 B1	20090211	KR20070062798	20070626
KR20080113851 A	20081231	KR20070062798	20070626
US2009001724 AA	20090101	US20080144644	20080624
WO09002107 A2	20081231	WO2008KR03684	20080626
WO09002107 A3	20090226	WO2008KR03684	20080626

Priority:

KR20070062798 20070626

Probable Assignee: KR CO LTD**Assignee(s):** (std): HAN HEE SEOK ; JANG JEOUNG IK ; KIM MAN SA ; KIM SA MAN ; KR CO LTD ; LEE SEUNG BAE**Assignee(s):** KR CO**Inventor(s):** (std): JANG JEOUNG IK ; LEE SEUNG BAE ; IK JANG JEOUNG ; BAE LEE SEUNG**Agent(s):** JASON Y PAHNG AND ASSOCIATES LLC; YP LEE MOCK AND PARTNERS**Designated states:** AE AG AL AM AO AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KZ LA LC LK LR LS LT LU LV LY MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**64) Family number: 41530619 (US2010072752A)**

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Title: POWER GENERATION SYSTEM USING HELICAL TURBINE

Abstract: Disclosed is a helical turbine power generation system for generating electricity by using a helical turbine and an overload prevention generator, the system including: a helical turbine rotatably provided in a frame so as to continuously generate rotation force under unidirectional or multidirectional fluid flow; a step-up gear for increasing a rotational velocity of the helical turbine up to a level required for generating electricity; and an overload prevention generator for generating electricity by using the rotational velocity transferred from the step-up gear, and for preventing overload caused by a sudden increase in a rotational velocity. Therefore, it is possible to reduce equipment costs and to prevent environmental pollution.

Classifications:**International (IPC 8-9):** F03B13/00 F03B13/12

F03B13/26 (Advanced/Invention);

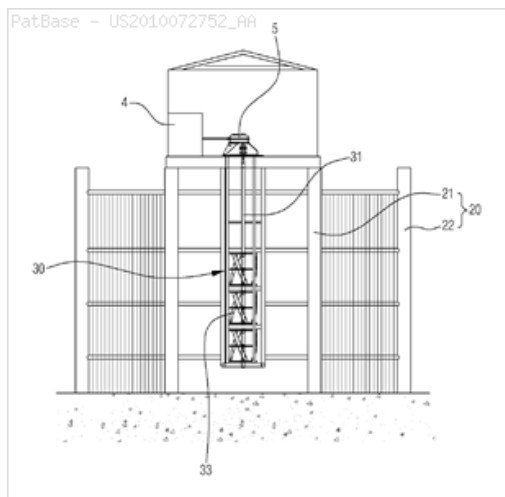
F03B13/12 F03B13/26 (Advanced/Non-invention);

F03B13/00 (Core/Invention)

International (IPC 1-7): F03B13/26**CPC:** Y02E10/38 F05B2240/40 F05B2250/25 F05B2270/103

Y02E10/28 F03B13/26

European: F03B13/26 R05B240/40 R05B250/25 R05B270/103

**Family:**

Publication number	Publication date	Application number	Application date
CA2671027 AA	20090528	CA20072671027	20071127
CA2671027 C	20121002	CA20072671027	20071127
CN101589224 A	20091125	CN200780043663	20071127
CN101589224 B	20111109	CN200780043663	20071127
KR100774309 B1	20071108	KR20060118646	20061128
US2010072752 AA	20100325	US20070516675	20071127
US8308424 BB	20121113	US20070516675	20071127
VN16473 A1	20170225	VN20090001044	20071127
WO08066313 A1	20080605	WO2007KR06037	20071127
WO08066313 A8	20090702	WO2007KR06037	20071127

Priority:

KR20060118646 20061128 WO2007KR06037 20071127

Probable Assignee: KOREA OCEAN RESEARCH AND DEVELOPMENT INST**Assignee(s):** (std): JIN JAE YOULL ; KANG SOK KUH ; KOREA OCEAN RES DEV INST ; LEE KWANG SOO ; PARK JIN SOON ; KOREAN OCEAN RES AND DEV I ; PARK WOO SUN ; YUM KI DAI ; KOREAN OCEAN RES AND DEV INST**Assignee(s):** KOREAN OCEAN RES AND DEV INSTITUTE ; KOREA OCEAN RESEARCH AND DEVELOPMENT INST ; KOREA OCEAN RESEARCH AND DEVELOPMENT INSTITUTE ; KOREAN OCEAN RESEARCH AND DEVELOPMENT INSTITUTE**Inventor(s):** (std): LEE KWANG SOO ; KANG SOK KUH ; JIN JAE YOULL ; PARK JIN SOON ; PARK WOO SUN ; YUM KI DAI ; JAE YOULL JIN ; WOO SUN PARK ; KI DAI YUM ; JIN SOON PARK ; KWANG SOO LEE ; SOK KUH KANG**Agent(s):** MCCARTHY TETRAULT LLP; EDWARDS ANGELL PALMER AND DODGE LLP; EDWARDS WILDMAN PALMER LLP; KIM MOON JAE ET AL**Designated states:** AE AG AL AM AT AU AZ BA BB BE BF BG BH BJ BR BW BY BZ CA CF CG CH CI CM CN CO CR CU CY CZ DE DK DM DO DZ EC EE EG ES FI FR GA GB GD GE GH GM GN GQ GR GT GW HN HR HU ID IE IL IN IS IT JP KE KG KM KN KP KZ LA LC LK LR LS LT LU LV MA MC MD ME MG MK ML MN MR MT MW MX MY MZ NA NE NG NI NL NO NZ OM PG PH PL PT RO RS RU SC SD SE SG SI SK SL SM SN SV SY SZ TD TG TJ TM TN TR TT TZ UA UG US UZ VC VN ZA ZM ZW**65) Family number: 41772236** (US2008101932A)

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Title: WIND DRIVEN POWER GENERATOR

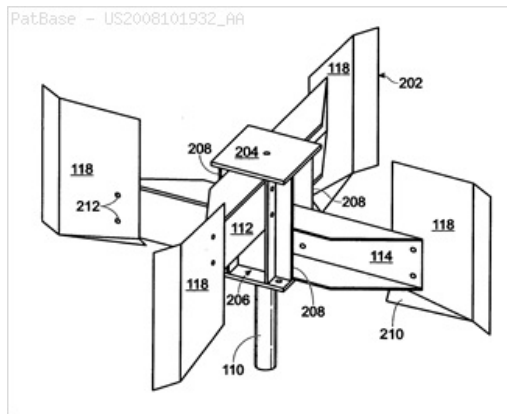
Abstract: The present invention is a wind driven power generator that has a rotational shroud assembly that has a base portion that is attached to a plurality of rotational base guides. A structure base has an annular shaped receiving rotational track that the rotational base guides rotate within. There is a turbine assembly that rotates within the shroud assembly which has a top portion and a shaft end. The shaft end extends through the base of the rotational shroud assembly and through the structure base. The top portion of the turbine assembly has at least one elongate arm that has a first arm end and a second arm end. The arm is attached to the shaft near the top portion of the turbine assembly and equidistance from the first arm end and the second arm end. Each arm is essentially perpendicular to the shaft of the turbine assembly. There is at least one vertical wind blade attached to each of the first arm ends and the second arm ends. Each of the wind blades has a wind side that incoming wind contacts and a back side opposite the wind side. The wind blades are spaced equidistance apart around the shaft of the turbine assembly. The rotational shroud assembly covers approximately half of the turbine assembly throughout the rotation and shields the back side of the blades from the incoming wind during rotation. The turbine assembly rotates independently from the rotational shroud assembly and the shaft end is coupled to a rotational energy conversion device.

Classifications:**International (IPC 8-9):** B63H1/06 F03D11/04

F03D7/06 (Advanced/Invention);

B63H1/00 (Core/Invention)

CPC: Y10S416/06 F03D9/34 F03D13/20 F03D3/0481 Y02E10/74 Y02E10/728**European:** F03D3/04E4B Y02E10/74**US:** 415/4.2 415/4.4 416/132.00BP 416/132B 416/197.00A 416/197A 416/211 416/244.00R 416/244R 416/DIG.6

**Family:**

Publication number	Publication date	Application number	Application date
US2008101932 AA	20080501	US20060586803	20061025
US8011876 BB	20110906	US20060586803	20061025

Priority:

US20060586803 20061025

Probable Assignee: GRADWOHL DONALD R**Assignee(s):** (std): GRADWOHL DONALD R ; GRADWOHL JONALD R**Inventor(s):** (std): GRADWOHL JONALD R ; GRADWOHL DONALD R**Agent(s):** TERI G ANDREWS ATTORNEY AT LAW; TERI G**66) Family number: 38523639 (US2007231118A)**

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Title: VERTICAL WIND TURBINE SYSTEM WITH ADJUSTABLE INLET AIR SCOOP AND EXIT DRAG CURTAIN

Abstract: A wind driven vertical axis power generating system is disclosed. An air scoop directs air from the prevailing wind into an air turbine. An exit drag curtain provides for an efficient re-entrainment of the power generating air back into the prevailing wind. The design provides for an efficient method of utilizing the energy from a prevailing wind. The air scoop and exit drag curtain may be rotated to be suitably oriented to the prevailing wind direction. The invention is visually pleasing in shape, as well as efficient in the production of useful power.

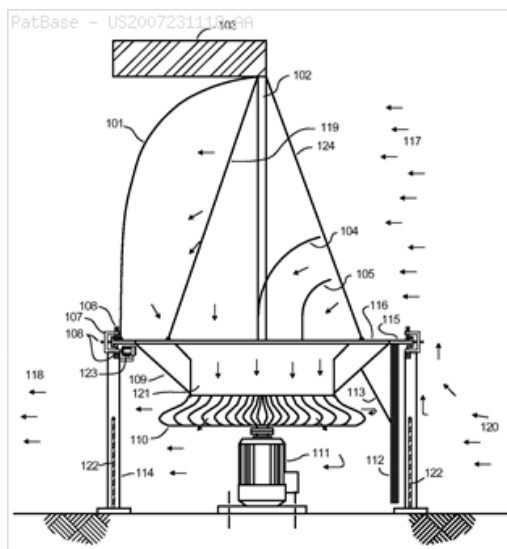
Classifications:

International (IPC 8-9): F03D1/04 F03D13/20 F03D3/00 F03D3/04 F03D7/06 F03D9/00 F03D9/25 F03D9/45 H02K7/18 (Advanced/Invention); F03D3/00 (Advanced/Non-invention); F03D3/00 F03D7/00 (Core/Invention)

CPC: Y10S415/907 F03D3/005 F03D9/39 Y02E10/728 F03D9/32 F03D9/34 F03D3/0454 F03D3/049 F03D9/35 F05B2240/13 F05B2250/5012 Y02B10/30 F03D9/37 F03D3/002 F03D3/04 F03D3/0436 F03D1/04 F03D3/0409 F03D3/0427 F03D3/0481 Y02E10/74 F03D9/45 H02K7/183 F05B2240/9112 F03D9/25

European: F03D1/04 F03D3/04E4B R05B240/13 R05B250/5012 Y02B10/30 Y02E10/72 Y02E10/74

US: 1/1 290/55 415/1 415/116 415/127 415/147 415/177 415/177S 415/182.1 415/182.100P 415/1P 415/211.2 415/220 415/4.2 415/4.200P 415/4.3 415/4.4 415/4.5 415/58.4 415/58.400S 415/58.5 415/907 416/132.00A 416/132.00B 416/132A 416/132B 416/244.00R 416/244R 416/9

**Family:**

Publication number	Publication date	Application number	Application date
US2007231118 AA	20071004	US20060608658	20061208
US2009155043 AA	20090618	US20090355411	20090116
US2010278629 AA	20101104	US20100834722	20100712
US2012121396 AA	20120517	US20120352259	20120117
US2012288357 AA	20121115	US20120488400	20120604
US2016084227 AA	20160324	US20150960286	20151204
US7488150 BB	20090210	US20060608658	20061208
US7753644 BB	20100713	US20090355411	20090116
US8403623 BB	20130326	US20120352259	20120117
US8459930 BB	20130611	US20120488400	20120604
US9273665 BA	20160301	US20120607614	20120907
US9453494 BB	20160927	US20150960286	20151204
US10280900 BA	20190507	US20160249467	20160828

Priority:

US20050766003P 20051229
US20100834722 20100712

US20060608658 20061208
US20120352259 20120117

US20090355411 20090116
US20120488400 20120604

US20120607614 20120907 US20150960286 20151204 US20160249467 20160828

Probable Assignee: KRIPPENE BRETT C

Assignee(s): (std): KRIPPENE BRETT C

Inventor(s): (std): KRIPPENE BRETT C

Inventor(s): KRIPPENE BRETT

Agent(s): LOEN PATENT SERVICES; ALEX R; INVENTION TO PATENT SERVICES; ALEX; HOBSON ALEX