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LAGI 2014 - Statement



**Positive Energy Park**

\*Logo is maded only for LAGI2014 competition!

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**01**

**Technology used in design**

- WIND TURBINE ENERGY:

The emphasis is on wind turbines – from the historical point of view, the Vikings used the “green” energy of wind for sailing, producing zero CO2 and virtually no sound and no noise pollution.

This is why wind energy is dominant, but there are variations. Other options are also possible, but there is not enough sunlight year round for sun collectors. The emphasis is on the electric power generated as a result of competitive and recreational activities by the visitors – groups or individuals.

OTHER MODELS:

Basically, this is a “**Positive energy park**”, primarily focused on *the positive human energy* which is the basic inspiration for such ideas and projects, also focusing on the real sources.

The idea is to use the design elements not only for the esthetic impression and renewable “green” power generation, but also for another special and important purpose – active involvement of more segments of the local community.

This means that younger generations will be particularly motivated to contribute to the generation of energy by participating in competitions, but this can also involve families, sports teams, neighborhoods, school classes, fans… to give the greatest contribution in kWh in a given time period competing.

**02**

**Estimate of total kWh the project can generate on an annual basis**

- Directly depends on the wind strength and the use of other additional models of electric power generation in time.

It is estimated that a yearly output might be:

Total assessment : **2.004.182 kWh/Year**

**03**

**Dimensions and descriptions of materials – elements**

Maximum use of the available area with several meters fire clearance with “Moon Light” LED lighting and “electric blue” effect.

Art objects that can produce “green energy” are integrated and creatively designed.

**WIND TOWER** – is the dominant visual element 55.52 m high. It is made from several segments for easier manipulation. The base of the tower is the metal “twisted” mash with 16 supports, 15.4 m high, to allow view of the other side and the surrounding.

The base is topped with closed cone-shaped tower segments made of decorative steel “Corten” which are of brownish-orange color, each 9.5 m high, diameter Ø 220 cm at the bottom and geometrically narrowed into a simple cone at the top.

The only mobile segment on the top are three fixed aluminum “sails” which turn the wind turbine, permanently producing electric power – depending on the dynamics and strength of wind.

The tower also generates power from the three three-armed horizontally internally mounted wind turbines made of light carbon, which are propelled by the permanent circulation of wind through the tower due to temperature difference.

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**GROUNDS:** The dimensions of the grounds follow the space available and there is a fire clearance. The grounds are 200 cm high, forming seven long hills. This creates an excellent undulating effect, which in combination with the mast – tower gives the impression of the Viking “long ships”, so the visitors see each other when they are atop a hill and do not see each other when they are at the bottom.

The visitors can walk around the educational features, going in a zigzag fashion through the valleys alone, making them invisible, but they would still be generating power because at the bottom of the waves following the direction of movement, there would be 20 cm high cylinders arranged in a zigzag manner every 70 cm, which would be electrically active each time someone steps on them.

The hills would be hollow tubes ca Ø 160 cm in diameter, whereby on both ends there would be light carbon wind turbines – 14 in total, which would also generate certain power from the air currents due to temperature difference and draft.

**Note:** The first annex features the base of the grounds with indicated areas for various activities involving groups or individuals.

Some allow a seasonal change of function with new features to encourage visitors to come more frequently, and it is possible to change the technology in time to make the entire park more appealing to the visitors and the media all around the world.

The entire complex is designed to be cloned easily anywhere, from kindergartens in the vicinity to locations on other continents, from small and basic forms to forms maximally adapted to large spaces, hence the name *Positive energy park*!

It is possible to permanently upgrade the features, giving new opportunities from the viewpoint of long-term exploitation.

Everything shown in the project is absolutely original and feasible.

\* All vertical bases are cylindrical with 1 m diameter and 2 m high.

They are covered with red LEGO bricks to emphasize the qualities of the local surroundings.



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L E G E N D:

**001**

GROUND

Multipurpose grounds with wind turbines and active participation of the visitors in the production

of “green energy”. Seen from above, the entire undulating grounds symbolizes two-colored striped “long ship” sail, and the metaphor of the ship is in the shape of the grounds, with the bow, main mast, and rowers, facing the center of the city from where the “green” Laser Light beam is emitted and dispersed on the AL sphere at the bow – symbolically carrying the “positive energy” from the city center.

**002**

RECEIVER – TOWER

Cone-shaped tower made from decorative “Corten” steel, 6 m high, with an AL sphere at the top to receive the directed Green Laser Light symbolic of the “positive energy” of the inhabitants of the city center, whose beam is dispersed after hitting the sphere, creating a wonderful effect.

**003**

MULTIPURPOSE GROUNDS

Various seasonally changeable features for group and individual education programs.

Numerous active educational and experimental features are planned along with the program, play contests, etc. for the visitors and their pets (dogs) to take part in, and all of them will be generating electricity with their own activity. Due to limitations in the application, these features are not detailed but merely outlined.

**004**

GROUP COMPETITION FIELDS

Each of three competition fields can accommodate one team which will turn the pedals in a given time (similar to riding a bicycle) to generate electricity – the winner is the team with the highest kWh output.

**005**

SPHERICAL WIND TURBINE  
Located at the central part of the recreational grounds on a cylindrical base. Its diameter is 5 m and is constructed from pentangon blocks resembling a soccer ball with ring-shaped wind generators sensitive to winds and draft in place of the black pentagons.

**006**

MAIN WIND TOWER

The dominant central 55.52 m high tower producing power in two ways: central top wind turbine and three mounted horizontal wind generators.

**007**

SPIRAL OBSERVATION TOWER

The spiral tower at the entrance which can accommodate visitors who want to see the grounds from above. They then go down sliding through the middle of the tower down the fireman’s pole, generating electricity as they move downwards.

**008**

TECHNO – WOOD with white rabbits 

The formation of 41 6.6 m high wind generators, indicating wind direction and togetherness.

The bottom is covered with green grass teaming with white rabbits symbolizing the energy which extends the species’ existence. Operative throughout the year.

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Project impact on the environment

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**Production of Co2**: 0.00 %

**Noise:** No noise pollution due to the use of the green energy source – wind, and wind turbines are silent, producing only ca 40 Db noise.

**Light emission:** Laser Light and LED “Moon Light”, with minimum consumption and minimum heat emissions.

**Maximum height:** From the + - 0.00 ground level, the height is only 58 m, which is tall enough to use wind power and much less than the maximum 125 m, saving money and simplifying the production, transport, and assembly.

**Materials** for the entire construction are the standard materials used in the construction industry.

**No emission** of illegal waste materials during operation.

**Positive visual impression from two aspects:** From the distance, giving the impression of the undulated plateau with a dominant vertical construction (pole) or tower in the middle, and another – micro aspect in the construction placing the onlooker in a specific and attractive position – viewpoint with emphasized perspective.

**General conclusion:** There is no adverse effect to the environment, on the contrary – by involving various social groups, from families to sports clubs, environmental associations in the process of socialization and production of “green energy” in the project, there is a positive and competitive atmosphere particularly with regards to the youngest visitors of the “Positive green energy park”, making them learn to act responsibly regarding their future.

A special advantage of this educational project is the fact that it can be replenished seasonally with new features and “cloned” to various positions making the necessary adjustments.