Buzz WindPower

A foldable, mountable/removable, low-drag wind turbine - to charge your Buzz, go camping with, etc

Target group

2: Young people driven by design & innovation and 1: Families with kids

Observation

A. Young people dig renewable energy, sustainability, and want to *be a part of the solution*. They know that an EV charging from the grid is actually using a mix of conventional *not so clean* and some clean electricity. An EV that's powered solely by the electric grid is indirectly contributing CO2 emissions!

B. Families (and everybody!) will appreciate an EV that is not a slave of the charging outlet. Being able to go longer without needing to stop for charging - that's everyone's dream.

Conclusion

Regardless of whether a vehicle is moving or is parked, the wind can be harvested using a vehicle-mounted wind turbine, to charge (top up) the vehicle battery.

The ideal solution should not depend on the motion of the vehicle (or the relative velocity) to harvest the wind energy - instead, it should work even when the vehicle is parked, and store wind energy as electric energy in the vehicle battery. This reduces the

Solution

One (or two?) small turbine that mounts on the Buzz and charges its electric battery with free wind energy. Our team is iterating on designs, and we seem to have at least one that will efficiently harvest available wind power *regardless* of whether the Buzz is moving or is parked. The turbine is great for camping trips, since it can power the vehicle, users' devices AND a camping tent - thus appealing to the lifestyle choices of users, as well as their interest in sustainable energy.

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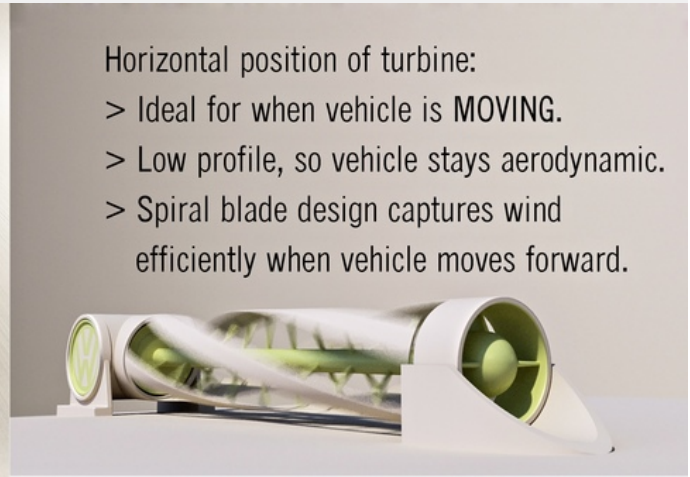

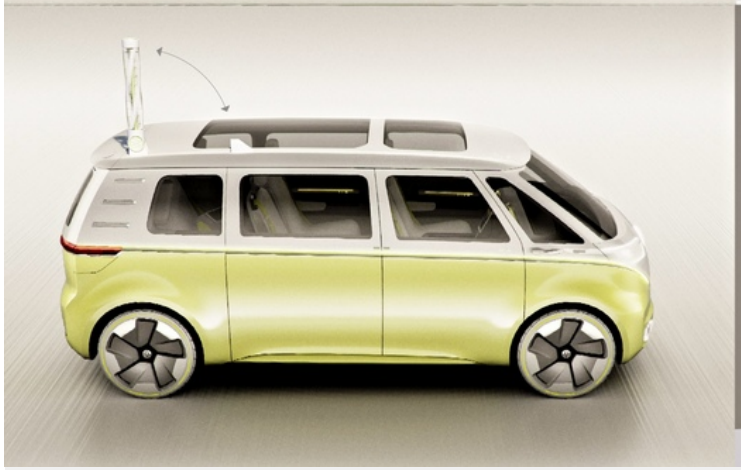

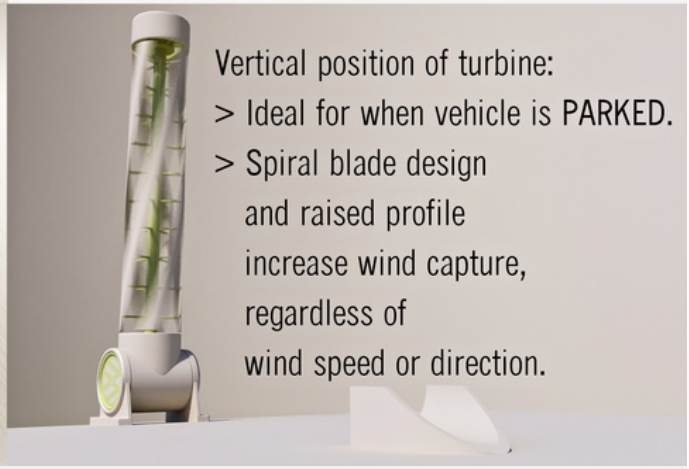

Need addressed by this product

The design and hinged mount *optimize wind harvesting - whether moving or parked*. For simplicity, we have shown just 1 turbine mounted on the roof. You can also imagine a two-turbine configuration (one on each side). Alternatively, just 1 turbine might suffice, on the roof's midline.

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Further elaboration of the product

VW engineering will optimize the parameters of the DNA helix-inspired blades, creating algorithms that can optimize the turbine's 3D design to match each owner's driving patterns, wind index in parking spots, personalization choices, etc. Hence, several parts/aspects are suited for 3D printing.

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Further elaboration of the product

We'll confer the Buzz with a level of self-sufficiency that other EVs & autonomous cars don't have today. The Buzz has a great range, but now we can reduce its dependency on the grid! In FUTURE: after the battery is full, a parked Buzz's turbine can even put excess electricity back into the grid.

Status: 23.09.2018

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Creative's profile

sarkar
Ideator

Collaborators

RK_341 PRO
Architect

Third party materials used

https://fortunedotcom.files.wordpress.com/2017/01/db2016au01085.jpg

https://www.nytimes.com/2017/10/05/automobiles/wheels/electric-cars-charging.html

https://www.standard.co.uk/news/transport/charge-rage-fears-as-electric-car-drivers-battle-for-insufficient-number-of-charging-points-a3626771.html

https://pixabay.com/en/dna-white-male-3d-model-isolated-1889085

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