



[PITCH VIDEO](#) [INVESTOR PANEL](#)

INVEST IN HALCIUM ENERGY

Safe, effective small wind turbines for homes and businesses

halcium.com Salt Lake City, UT

Climate Change

Energy

Highlights

- 1 A small wind turbine with no external moving parts.
- 2 Specifically designed to produce energy in towns and cities.



- 3 Omnidirectional - can take wind from changing directions, or even multiple directions at once.
- 4 We've received interest from people, businesses, non-profits, and governments across the world.
- 5 Distributed energy is a \$285 billion market a year - projected \$918 billion by 2032.
- 6 Over 40,000 people have signed up to be notified when the PowerPod is ready to sell.
- 7 Over 3,000 have signed up to become installers or distributors.

Featured Investor



Tanner Allen

Invested \$11,000 

Follow

“Energy projects and products are always interesting. It gives the possibility of change and innovation. I believe Nick is on to something here and I can see the huge potential and possible industry changing product . Just imagine the possibilities. Looks like he is having a a great team put together, it seams he knows what needs to be done, what the market is, what the costs are. And the fact that it seams we are almost at the finish line?! I am excited to invest and see where this goes!”

Our Team



Nicholas Hodges Founder



Startup and small business lover. Expert in growing and scaling companies.

I believe in the future of clean power, but current wind turbines just didn't look like something I'd want on my house or business. I wanted a viable option besides solar panels to help generate power in cities and towns.



Emil Bohn Growth Adviser

Emil has 30+ years of experience helping young, high-growth companies, leading both private and public companies. Previous clients include Black Diamond Equipment (now Clarus Corp), Blue Shield California, 3form, Packsize, and Kaiser Permanente.



Theodore Espiritu Technical Lead (3rd Party)

Theodore is the founder and director of Espiritu Design. For the past 17 years, he's developed new products for founders up to international conglomerates and even the US Air Force. His involvement will end when prototyping has been completed.



Dr. Juhyeong Lee Technical Adviser (3rd Party)

Dr. Juhyeong Lee is a professor of engineering at Utah State University. After seeing our turbine in testing by a 3rd party, he reached out to help design a blade specifically for our turbine. His involvement will end when prototyping has been completed.

Meet PowerShell



Meet PowerShell

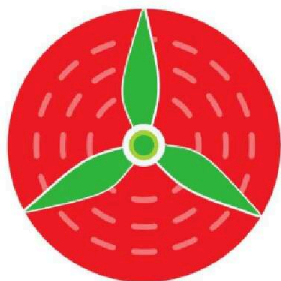


A small wind turbine made specifically for the challenges of urban and residential environments.

It has no external moving parts. The internal blade is completely contained within a stationary shell.

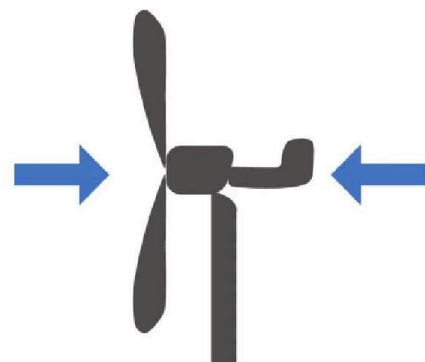
The Problem

In most towns and cities, air becomes extremely turbulent as it bounces off buildings and down streets.



This turbulent air is incompatible with traditional open bladed turbines, causing them to malfunction and possibly even shatter.

Wind can also change directions suddenly, or even come from multiple directions at once, wreaking further havoc on regular turbines.



The Solution



360°
COLLECTION
=

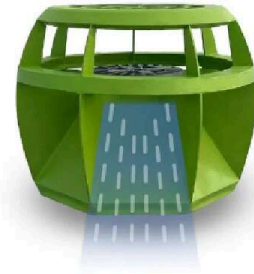


NO EXTERNAL
MOVEMENT
=



SAFER POWER

Gather up turbulent wind and focus it on a blade designed specifically to receive it. Reduces sheering forces on the blade.



Omnidirectional - takes wind from any direction, or even multiple directions at once. No loss of speed, no extra stress on blades.



NO EXTERNAL MOVING PARTS
Safe for birds, people, and wildlife

Market

\$285 Billion in
2022*

\$918 billion by
2032*
(13.3% CAGR)

- Our target market is distributed energy sales around the world.
- B2B Sales to large corporations, government entities, and local installers.
- Over 3,000 distributors and installers have already signing up to add the PowerShell to their offerings.

* Spherical Insights, Report SI2100 (2023)

Current Technical State

Prototype has shown system validation in the relevant environment during in-house testing.

Espiritu Design, a prototype engineering firm in Salt Lake City, has finished a feasibility report estimating a coefficient of power of roughly 0.15, which is in line with similar turbines such as the Flower Turbine.

Flower Turbines reports a total of \$17 million raised and is in final product testing, according to their website.



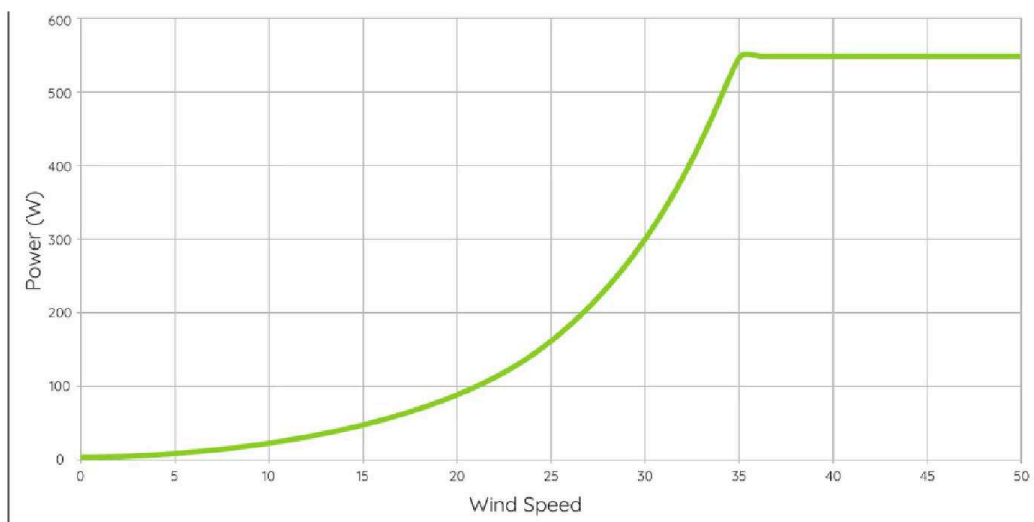
1x
Patents
allowed

1x
Patents
pending

Expected Power Curve by Espiritu Design

Potential Halcium Power Generation from 500W Generator

Halcium PowerShell 2 m



A turbine this size could potentially generate between 1,000-1,400 watts, however this graph is limited by the selection of a 500 watt generator with a brake at 35 mph. A higher rated generator is being explored, however a power curve for a larger generator is not available at this time.

Next Steps

Espiritu Design, a Salt Lake City prototype engineering firm, has committed to finishing the PowerShell's development. Dr. Juhyeong Lee, of Utah State University, has asked to lead development of the blade.

They need \$2 million over 2 years, at the end of which they expect to deliver a manufacturable turbine with all parts sourced and ready to order.



1x
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allowed

1x
Patents
pending

