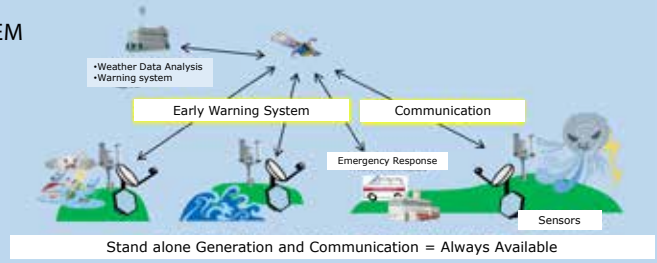
DISASTER RISK REDUCTION

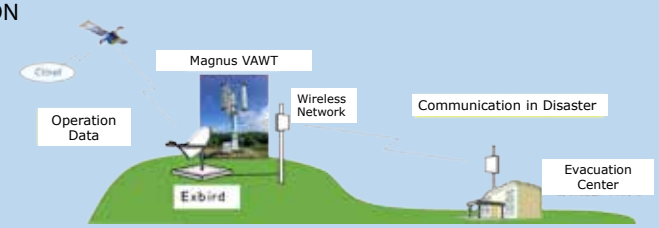
DISASTER ALARMING SYSTEM

- Wind energy used for the independent power source of sensor and satellite antenna.
- Stable connection with the central agency.



SATELLITE COMMUNICATION

- Secured power supply for medical and communication purpose
- Satellite antenna for monitoring and emergency communication



MOU PARTNERS, investors (for approval)

REAL TECH FUND
MS&AD 三井住友海上キャピタル
THK The Mark of Linear Motion
GLOCALINK

OUR PARTNERS

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Challenergy

Innovation for Energy Shift

Next generation wind turbine that harness energy from Typhoons

THESE DAYS…

Nowadays, due to the consequences of climate change, the typhoons' frequency and intensity are increasing every year. Also, there are more than 1.3 billion people living without access to electricity, especially in vulnerable countries.

WHO WE ARE…

Our vision is to "Supply safe electricity to all human beings through the innovation in wind energy".

Guided by this vision, we have created the world's first Magnus Vertical Axis Wind Turbine (Magnus VAWT) which can generate clean energy even in strong typhoon winds. Unlike conventional wind turbines that stop operating under strong wind conditions, our turbines can continue to generate power and can withstand these extreme wind speeds. In this context, it would be suitable for these areas where local residents suffer from insufficient or lack of electricity especially in times of typhoons and hurricanes. Our product would surely enhance the management of wind energy all over the world through providing safe, stable and cost-competitive electricity to all human beings. We intend to change hazard maps of the world to energy maps and provide clean energy and lighten and brighten lives, just like a picturesque sunny day after typhoons pass by.

Atsushi Shimizu
Founder and CEO

OUR SOLUTION…

The world's first Magnus x Vertical Axis Next Generation Wind Turbine (Magnus VAWT) is our solution. Instead of propellers, our turbines utilize the principle of the "Magnus Effect" and integrate a Vertical Axis orientation, enabling it to control its power generation even in extreme wind speed and changing directions, just like during typhoons and hurricanes. The MAGNUS VA technology also reduces the manufacturing costs while maintaining the strength it needs to withstand extreme weather conditions. Compared to conventional wind turbines, the Magnus VAWT rotates much slower, producing less noise and avoid bird strikes. Not only would it bring positive impactes to the environment by producing clean energy, but it can also help in improving disaster response especially in isolated areas since it can provide stable communication through its antenna and satellite. Through our turbines, we intend to help the world, not only to have clean energy, but to also have a secured source of electricity that can withstand any weather condition and can also help ensure prompt response especially in times of disasters.

Although, the world goes toward Renewable Energy, especially Wind Energy as a stable power source. But the conventional windmills have environmental impacts such as noise disturbances, bird strikes and safety concerns.

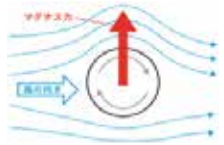
OUR TECHNOLOGY…

FIELD TESTS

In 2017, our 1KW prototype in Nanjoushi, Okinawa, Japan started conducting experiments in the following windspeeds: 83km/h, 86km/h, and 120km/h.

Last August 3, 2018, we launched the 10kw prototype in Ishigaki Island, Okinawa, Japan and is currently undergoing field tests as well.

1KW Prototype in Nanjoushi, Okinawa Japan



- "Magnus effect"
- Principle of curve ball
- Controllable by rotation speed
- More durable but cheaper than propellers

- Vertical axis
- Omnidirectional
- Low maintenance cost
- Installability in urban areas

OUR MARKET…

World Typhoon Map
It is said that around 90 typhoons and hurricanes occur every year. Considering the characteristic of our product, there is a big opportunity to develop the niche markets for the small-scale and isolated areas.

OFFGRID AREAS

There are many islands where typhoons take power supply away. Usually, these far-flung areas depend on diesel generator sets for their electricity and this torments them with a high generation cost. Our turbines would be a great fit for them to reduce the cost and obtain clean energy as well.

OUR TIMELINE…

We are scheduled to do a field test in 2019 in the Island of Batanes, Philippines through our partnership with NPC. In the same year, we intend to start our business expansion in Southeast Asia, initially in the Philippines which is one of the countries most frequently visited by typhoons. We plan to start a mass production of the 10kw turbine in 2020.

10KW Unit , Ishigaki Island, Okinawa, Japan