



ANTARCTICA ENTERPRISE

L A S T F R O N T I E R S O L U T I O N S

VETAR

NEXT GENERATION WIND

- **Inaudible**

Does not emit harmful infra-sound and it is almost silent in human hearing range.

- **Makes no vibrations**

Contra-rotating rotors make turbine more efficient while canceling each other rotational vibrations.

- **Efficient**

Advanced aerodynamic futures create pressure difference that accelerate wind inside wind turbine.

- **Safe**

VETAR is compact in size with a lower probability for a bird collision. With a safety grille mounted VETAR is completely safe to use even in the most sensitive ecosystems.



THIS TECHNOLOGY MEETS
THE SOLAR IMPULSE STANDARDS ON
**SUSTAINABILITY &
PROFITABILITY**

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ΕΑΠΟ
ΕΑΡΟ



Intellectual
Property
Office



MORE

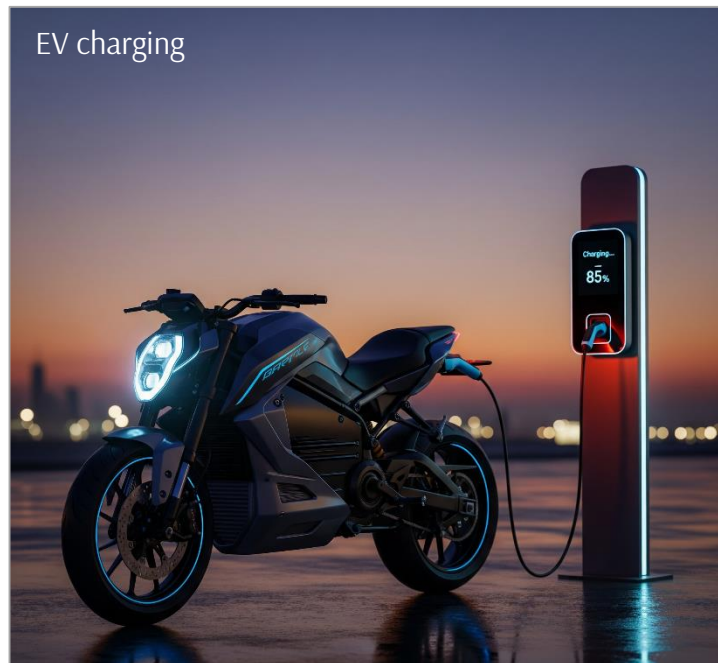
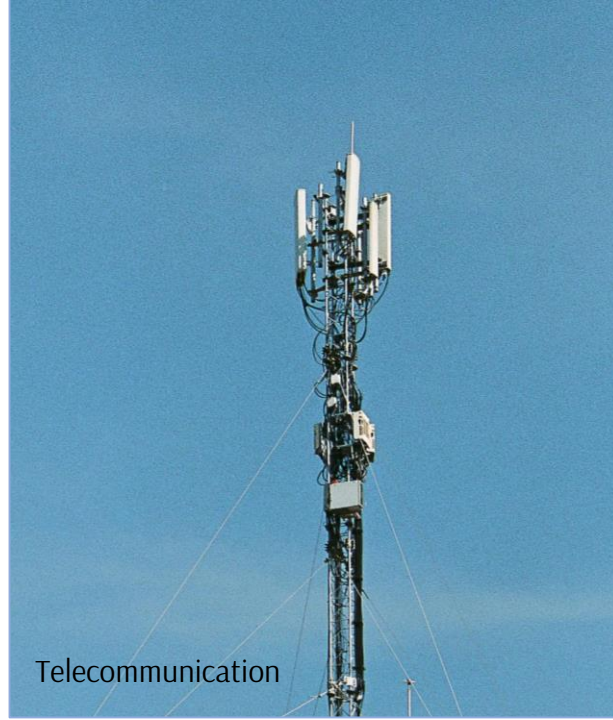
D E G I S S U E S

Current reliance on DEG means issues with:

- Telecommunication towers
- Remote data centers
- Remote security bases
- NO field charging for civilian or combat EVs

No diesel, no nothing everything stops.

- Complicated fuel logistics
- Clear and vulnerable target
- Pollution issues
- Noise issues



VETROSAIL

MOBILE HYBRID RENEWABLE



• Batteries

VETROSAIL is equipped with battery power storage system. Electric power storage capacity range from 100-3000kWh.

The system can operate different types of batteries for every climate and temperature operational range from -40°C to +60°C.



• EV Charger

VETROSAIL is designed to integrate multiple SUPER FAST Electric Vehicle chargers with charging power ranging from 150-300kW.

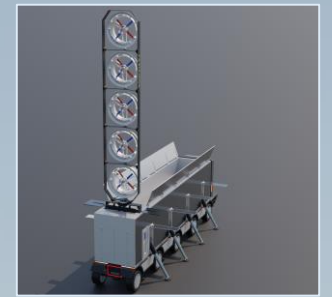
It means that just one VETROSAIL energy platform can, simultaneously, charge up to 4 different EVs.



1.minute



2.minute



3.minute

• Mobile.

VETROSAIL is the most powerful, mobile, renewable energy system. In the same time it is the most compact as well. Power generation combines 25 kW wind with 10kW solar PV totaling 35 kW of installed power. The 43" VETROSAIL container is mounted on Electric Vehicle integrated with AI platform for the optimal resource utilization. Fully automated system can be deployed within minutes.



ΕΛΠΟ
ΕΛΠΟ



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EVERYWHERE

P L U G A N D P L A Y

Plug & PLAY

VETROSAIL is instantly ready for operation.

It requires no specially trained personnel. It is fully automated and ready to use in any environment.

No Permits - saves time

Current power generation as well as EV charging sites, telecommunication and other fixed infrastructure sites are requiring months and often years to get different kinds of permits just to get started.

With VETROSAIL mobile system this is not an issue.

Being a clean-tech and mobile, in most cases, **VETROSAIL requires no special permits.**

No Infrastructure - saves money

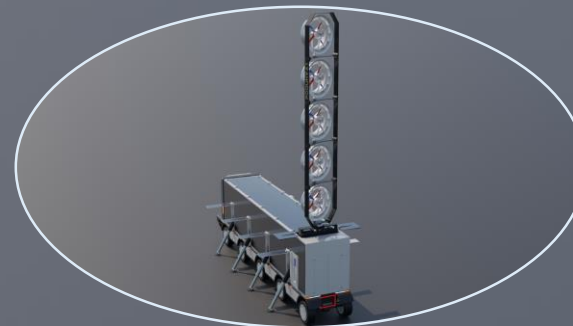
Mobile design of VETROSAIL requires no expensive infrastructure to be built. It eradicates the need for an infrastructure and permits thus **saving time and money.**

• ON SITE CHARGING

When there is a wind and sun, the VETROSAIL batteries can be recharged on site.

• CHARGING LOCATION

Optionally VETROSAIL can be transferred to charging location with higher wind speed where it can be charged more effectively.



• CHARGED TO SITE

OPTIONS:

1. VETROSAIL as a system returns to desired location.
2. Container can be interchanged.
3. Battery packs can be interchanged.



ΕΛΛΑΣ
ΕΛΛΑΣ



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MULTIVERSE

A P P L I C A T I O N

Electricity Production

The basic role of VETROSAIL is to produce electric energy. It does it from renewable sources such as wind and sun. Stored energy can then be used to power different needs from housing to industry.

EV Chargers

Electric Vehicle charging in all, and especially remote locations, is a mayor challenge. To provide electric power from renewable resources is yet another. VETROSAIL offers the solution on both challenges with high power EV chargers.

Telecommunications & IT

VETROSAIL can provide power for energy autonomous telecommunication systems. It can integrate multiple telecommunication equipment or can be paired with another telco unit for a long range, high power system. VETROSAIL makes possible remote data centers, IoT infrastructure and satellite links ground bases.

Transport

Paired with AI integrated Electric Vehicle Platform VETROSAIL can be used to transport people and goods with or without human driver. It can traverse long distances without need for a fuel.

Observation & Defence

VETROSAIL platform can be augmented with multiple sensors for meteorology, ecosystem and climate research as well as defence purposes. As it requires no diesel, or other fuel, it enables long term autonomy and solves the mayor logistic weakness of resupplying.

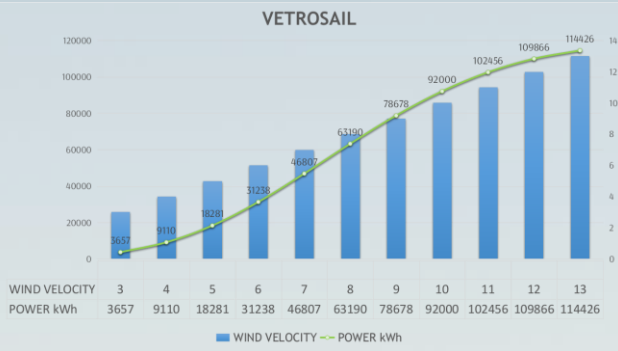


TECHNOLOGY

S P E C I F I C A T I O N

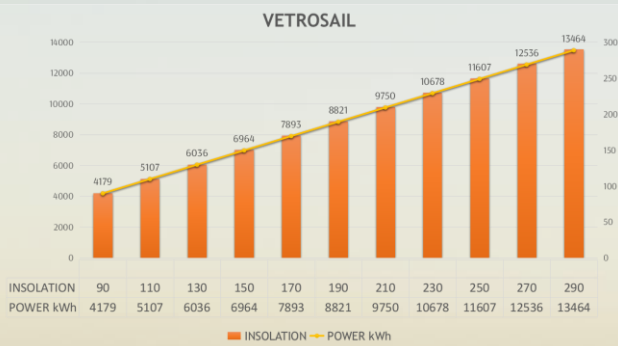
Wind Energy

Annual energy production depends on multiple factors such as average wind velocity (m/s), turbulence and wind distribution pattern (Weibull $k=2$).



Solar Energy

Annual energy production depends on average insolation (Wh/m^2), sun angle and temperature.



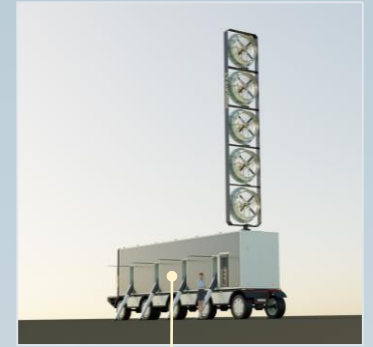
THE SAIL
5X VETAR4
25kW

SOLAR
Thin Film
10kW

VETROSAIL
Container

EV CHARGER
Superfast
150kW

BATTERIES
1000kWh



POWER TO H₂

TECHNOLOGY DEMONSTRATOR

CONFIGURATION

WIND - 10kW

SOLAR PV - 5kW

ELECTRICITY ANNUALLY

WIND SPEED 8.5 m/s - 26.5 MWh

SOLAR ENERGY at 95 W/m² - 2 MWh

HYDROGEN ANNUALLY

H₂ - 511 kg

VETROSLAV
POLAR

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VETROSLAV POLAR is an autonomous renewable energy system with automated snow collection, melting, production and storage of hydrogen. The operating temperature is from 60oC to +50oC.

C O S T

S P E C I F I C A T I O N

35 kW

- (5x VETAR 5kW + 10kW PV)
- £ 600.000

15 kW

- (2x VETAR 5kW + 5kW PV)
- £ 450.000

NOTE:

EV truck is not included in price estimate
Power Storage includes 300 kWh batteries



POWER GENERATION
AUTOMATION + POWER STORAGE

PLUG & PLAY
S O L U T I O N

EVERYWHERE
CHARGING SYSTEM

0.6
million GBP
PILOT

RECOGNITION

T H E C O F O U N D E R S



Climate Smart Urban
Development Challenge



BEST IDEA AWARD
to
Predrag Paunovic
in front of
PODUHVAT

handed over by

Minister of Environment and Protection
Mr. Goran Trivan
and
Deputy Resident Representative UNDP
Ms. Steliana Nedera

BELGRADE
SERBIA
2018



Predrag Paunovic
cofounder
Antarctica Enterprise
& Poduhvat

Nenad Paunovic
cofounder
Antarctica Enterprise
& Poduhvat



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As a ...
2016
WINNER
of

NEW ENERGY
GLOBAL STARTUP FEST

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**BE A HERO
TOO**

Thanking note

Nenad Paunovic

by

Minister of Innovation
and Technological
Development,

Mr. Nenad Popovic



**Autodesk Clean
Tech Partner**



Winner 2012



**Special Guest
2013**



Winner 2016



Winner 2018



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