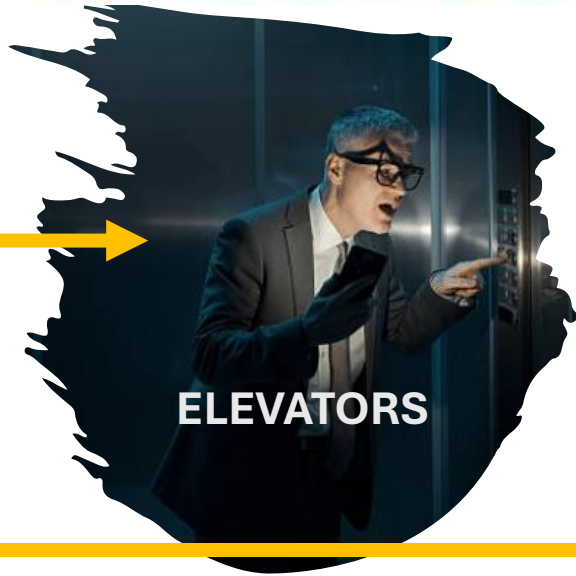


SolarAce PV "ENERGencY" generator.

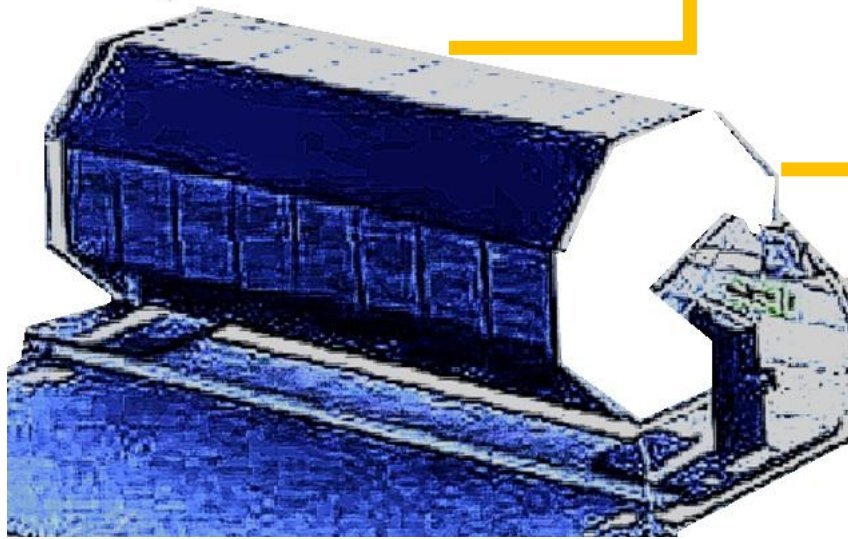
1. "ENERGency" cases and "existing" solutions.



SHUTDOWN AND...



2. Three problems- one solution: “ENERGencY” PV generator!



ENERGencY PV generator.



ELEVATORS



LIGHT



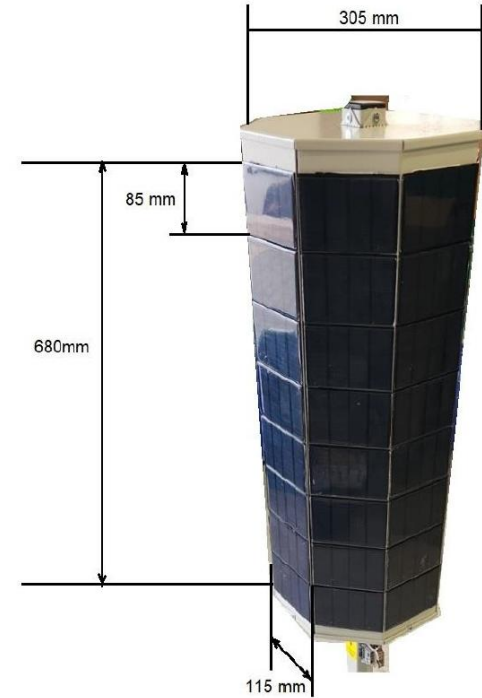
BARRIERS

3. .ENERGencY generator and the Solar Active Photovoltaic system (ASPS) concept

ENERGencY PV generator is basing on the ASPS solution that allows to maximize the power output. ASPS concept consist of two ideas:

- A. PV cell/panel and electric circuit create the separate PV channel.
- B. PV cells/panels/channels are multi-oriented but connected into the same circuit.

Thus, we have ability to increase the energy output per ground area (footprint) in comparison to the traditional PV systems of the same footprint.



4. COMPARISON.

ENERGencY GENERATOR IS POWERFUL ENOUGH FOR OPERATING OF THE SOME CRITICAL FOR FACILITY MANAGEMENT ELEMENTS LIKE LIGHT, CAR ENTRANCE BARRIERS, ELEVATORS, ETC. FOR THE BLACK OUT OR SHUT DOWN CASES.

- TWICE POWERFUL THAN TRADITIONAL PV SYSTEM.
- MORE HUMAN FRIENDLY THAN ANY FUEL GENERATOR(NO FUELS, NO NOISE, NO FUMES)



	FUEL GENERATOR	TRADITIONAL PV SYSTEM	ENERGencY PV GENERATOR
ENERGY OUTPUT	HIGH	LOW	MEDIUM
FOOTPRINT	LOW	EXTRA HUGE	LOW
FUME and GASES	YES	NO	NO
NOISE	YES	NO	NO
FUEL PAIMENTS	YES	NO	NO

5. GO TO MARKET

- “GREEN” BUILDING PROGRAM
- SMART CITY INFRASTRUCTURE
- SMALL BUSINESS OFF- GRID BACK-UP
POWER SOURCES
- REFRIGIRATORS TRUCKS FLEET
- ENTERTAINMENT AND FESTIVAL ORGANIZERS



6.COMPETITORS

“HANOVER PV TRUCK “ TEST



	Hanover truck	ASPS
Daily output	1.65 kWh	3 kWh
Number of peak-hours	4	8



SMART SOLAR LIGHTING



Solar HUB has a unique dome-shaped photovoltaic panel that maximizes solar energy collection regardless of the sun's position. Solar energy is stored in LiFePO4 or NiMh battery that powers environmental sensors, LED lighting system, IoT devices and electronic core. Solar HUB has been engineered to enable mass production and to permit easy maintenance and a fast deployment in cities.

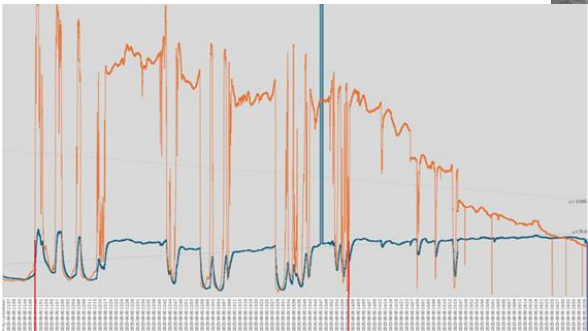
No DATA!



7. ACHIEVEMENTS

2025

- SUCSESSFUL POC PROCESS:
Two, laboratory performed, tests
(TRL5 level)



	ASPS	Traditional PV
Power	20 W	100 W
Footprint	0.064 sq.m	0.5 sq.m
Spatial power density	300-400 W/sq.m	200 W/ sq.m
Number of peak-hours	5-8 h/daily	2-4 h/daily
Energy output	57 Wh (from 11:40 to 16:40)	153 Wh (from 11:40 to 16:40)
Spatial energy output	890+300 Wh/sq.m	300 Wh/sq.m

8.ADVANTAGES

- MORE POWER IN REAL WEATHER CONDITIONS
- MORE PEAK HOURS PER DAY
- MPPT COULD BE EXCLUDED
- INVERTER COULD BE EXCLUDED OR RESIZED TO A SMALLER SIZE
- HIGH ADAPTIVITY AND VERSATILITY TO THE CLIENT REQUIREMENTS
- EMERGENCE ENRGY MARKET GAME CHANGER

9. REQUEST FOR THE PARTNERS...

Close tasks:

- To finish the test process
- To organise the fund rising
- To contacts with the clients
- To organise the generators manufacturing process
- To continue the development process

Are you ready?

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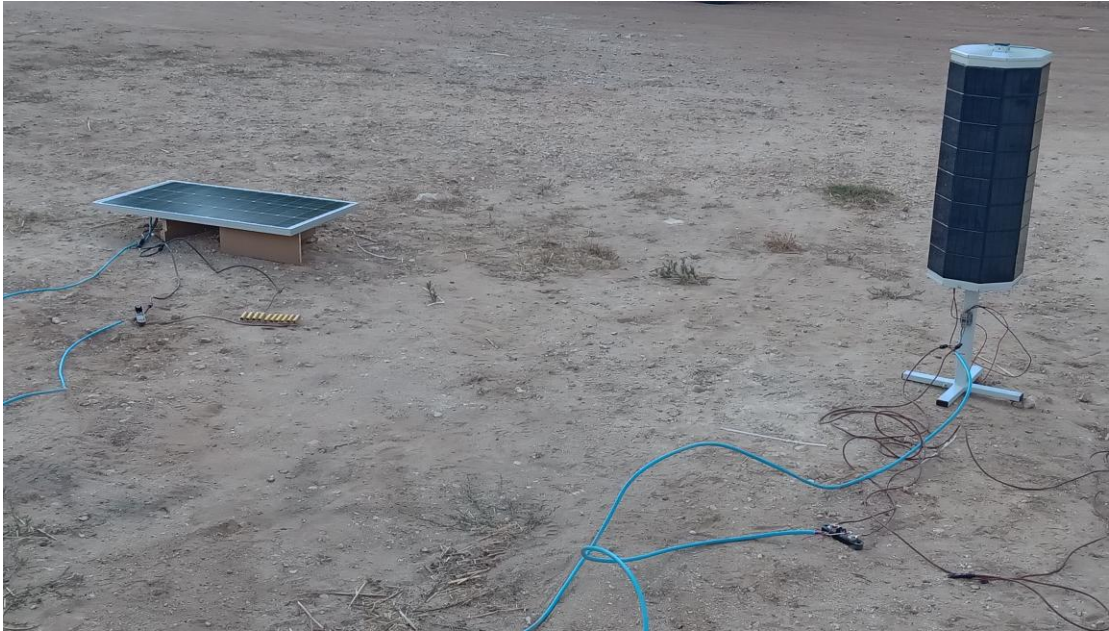
INVENTOR- Alexei Grigoriev (EM ENGINEER)

10. Attachments. POC. FIRST AND SECOND TESTS



Importantly, the spatial power density analysis highlighted a key advantage of the SAG system. With a tested output density of approximately 278 W/m^2 —and projected values of over 400 W/m^2 when extended vertically—the SAG significantly outperforms conventional flat panels ($\sim 200 \text{ W/m}^2$) in footprint-limited scenarios. This metric underscores the generator's value in applications such as urban rooftops, compact installations, mobile platforms, and solar-integrated structures where horizontal space is restricted.

10.1 POC. THIRD TEST



Interesting features of the SOLAR PANEL 2

- The SOLAR PANEL 2 is significantly less affected by cloud cover and variations in radiation intensity compared to a standard panel. (SOLAR PANEL 1):

	Maximum	Minimum	Range	Average	Median	Standard Deviation	Average of Absolute Deviation
P-REG (SOLAR PANEL 1)	91.5124	0.42958	91.0828	36.3723	28.2768	24.435	22.2143
P-SOL2GEN (SOLAR PANEL 2)	20.3463	1.88804	18.4582	13.626	16.0877	4.83302	4.07675

- As a result, SOLAR PANEL 2's output remained much more stable throughout the test period, and the amount of energy the panel produced 56% more energy compared to the standard panel (SOLAR PANEL 1):

	Power[W]	Energy[W*s]
P-REG (SOLAR PANEL 1)	P1=100	E1=549138.11
P-SOL2GEN (SOLAR PANEL 2)	P2=24	E2=205720.53
Ratio	Rp=(P2/P1)=0.24	Re=E2/(E1*Rp)=1.56=156%

