

ACTIVE SOLAR POWER BOX

SolarAce
infrastructure
project.



1. Modern PV power external sources : WEAK & HOPELESS

- LOW SPATIAL POWER DENSITY- 240 W/ sq. m AND LESS
- NUMBER OF PEAK-HOURS- 4 h AND LESS
- TRADITIONAL PV SYSTEM WITH 1 SQ. M. AREA PRODUCE AROUND 1KWH/Day AND LESS.



1.1 Modern PV Vending machines:

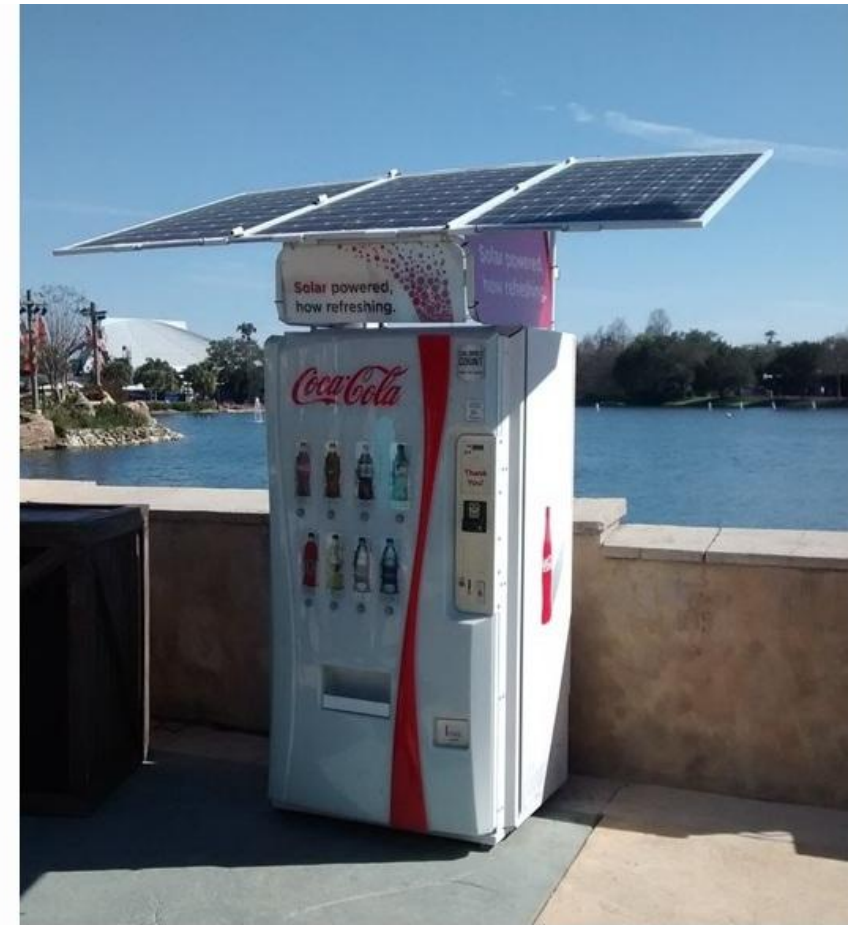
WEAK & HOPELESS

- REFRIGIRATING VM REQUIRE 10-11 KWH/DAY
- TRADITIONAL PV SYSTEM (1 SQ. M. AREA) PRODUCE AROUND 1KWH/DAY, MAXIMUM.



NOCRU3036NBSH3S N-OK303HEZRB
1159X725X1830

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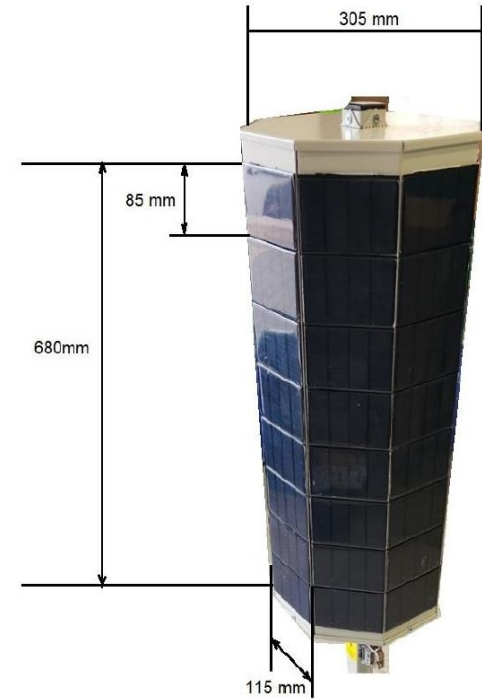


2.ENERGencY generator and the Solar Active Photovoltaic system (ASPS) concept

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.

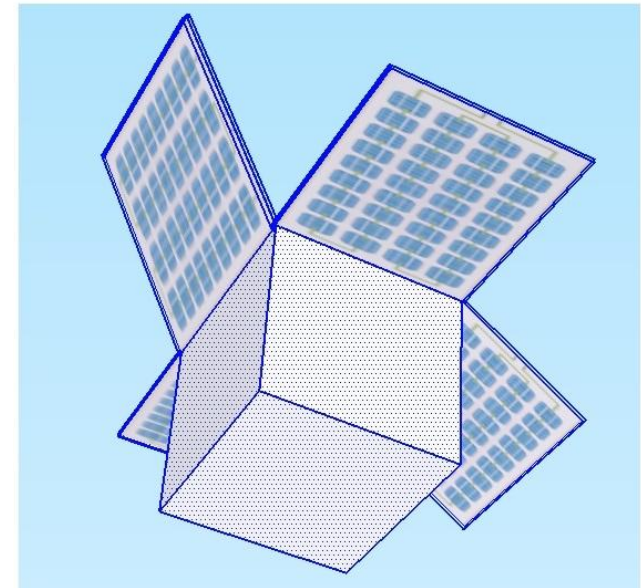
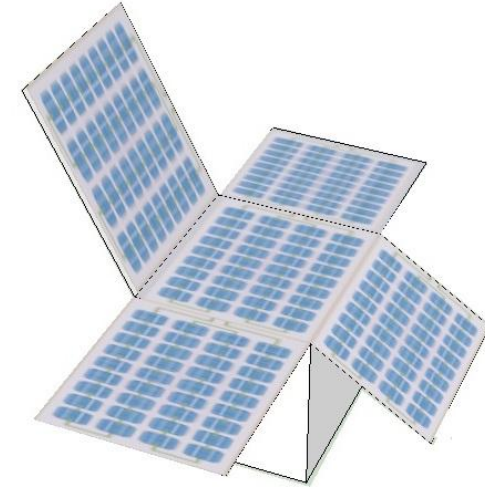


3.1 PRODUCTS

SEMIACTIVE PV

POWERBOX

- POWER - 305 / 360 W
- PANELS NUMBER -5
- ENERGY -1.47 / 2 kWh/day
- DIMENSIONS1 -1X1X0.5 / 1x1x1 m



3.2 PRODUCTS

FULACTIVE PV

POWERBOX

- POWER - 60 W AND HIGHER
- PANELS NUMBER -8
- ENERGY - 1 KWh/Day AND HIGHER
- DIMENSIONS1 -1X0.5 X0.5 M
- DC/ PULSED DC/ AC
- SYSTEM ENLARGING OUTPUT THROUGH THE NUMBER OF USING POWERBOXES



4. FINANCIAL PROJECTIONS



POWERBOX PV MODEL	POWER	ENERGY(DAILY) (for sunny day)
SEMIACTIVE 505	720 WATT	1.4 kWh
SEMIACTIVE 510	1200 WATT	2 kWh
SEMIACTIVE 1310	3120 WATT	4 kWh

FULACTIVE POWERBOX PV AND POWERBOX PV CABINE ARE
IN RESEARCHING PROCESS...

5. GO TO MARKET

- SWIMMING POOLS
- MUSEUMS
- GOLF-CLUBS
- ATTRACTION PARKS
- ZOO
- HOTELS
- MILITARY BASES
- AND OTHER PROTECTED AREAS



6. MARKET

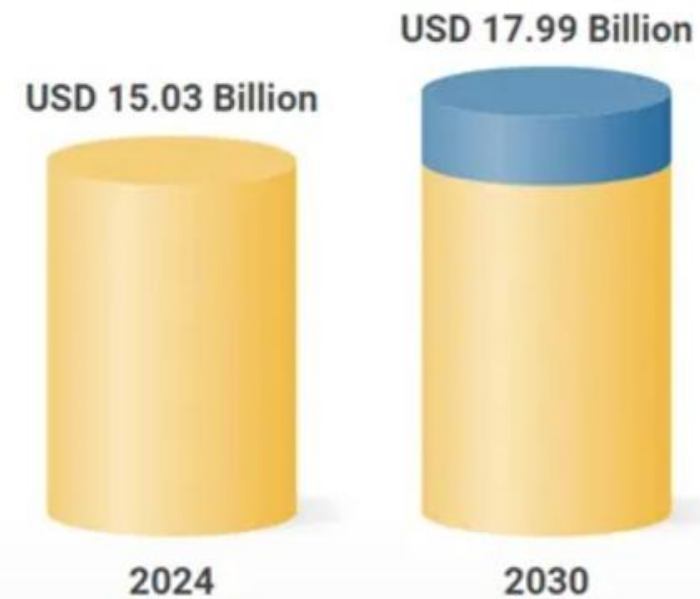
- FOOD AND BEVERAGE INDUSTRY
- SMALL BUSINESS OFF-GRID POWER SOURCES
- EMERGENCY POWER SOURCES



6.1 MARKET SIZE

U.S. Retail Vending Machine Market

Market forecast to grow at a CAGR of 3.1%



<https://www.researchandmarkets.com/reports/6098195>

RESEARCH AND MARKETS
THE WORLD'S LARGEST MARKET RESEARCH STORE

7.COMPETITORS

LANPWR

SOLAR
KIOSK

 **OUPES**

NO POWER OOPS WITH OUPES



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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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%

