

# SolarWat

The most powerful, most reliable SolarWat PV panel for supplying clean, affordable and secure energy



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# Current PV Module's Manufacturing Soldering Process

String 1 of 6

String 1

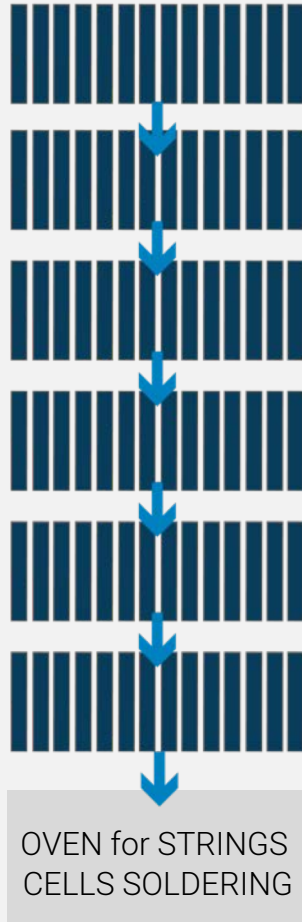
String 2

String 3

String 4

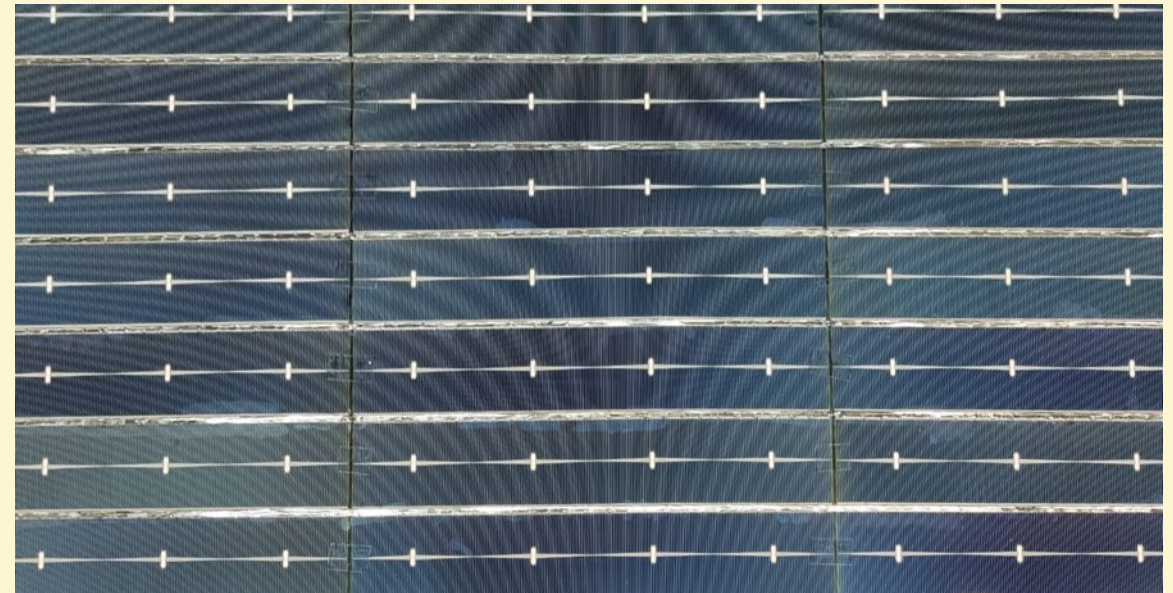
String 5

String 6



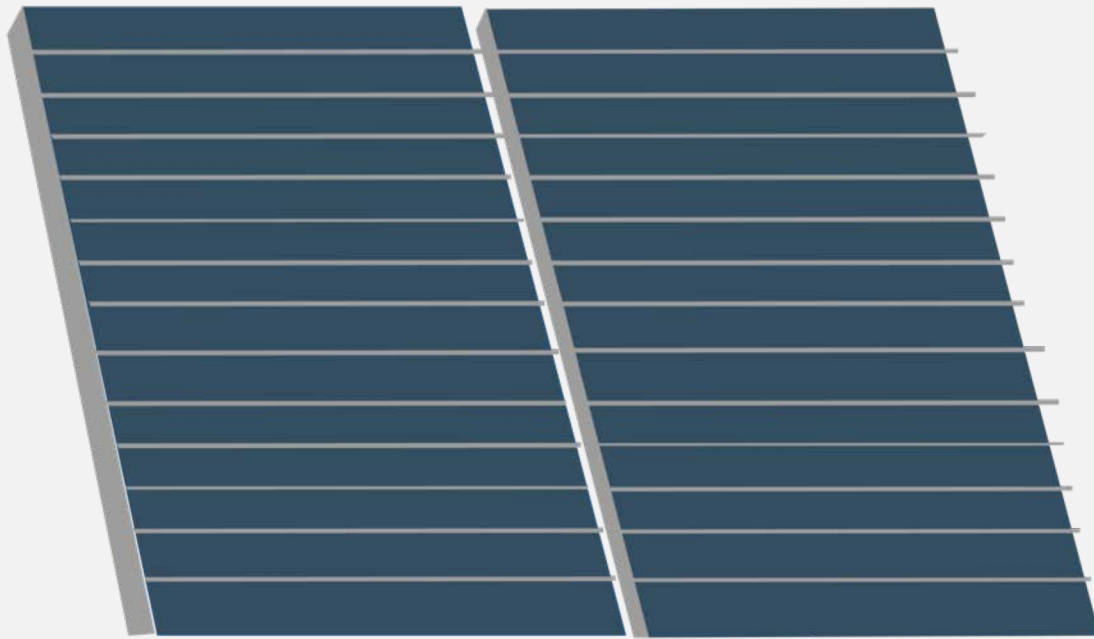
LONG PROCESS of One by One  
String Soldering

# SolarWat Solution



All sub-cells array of solar panels soldered in one step in laminator that incorporated with panel lamination

# Common use PV cells Connecting Process

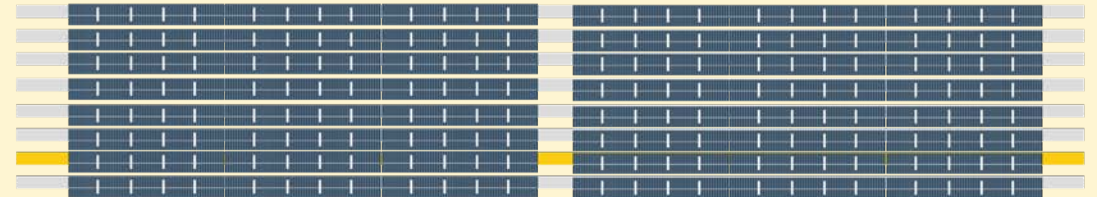


Solar Cell 1

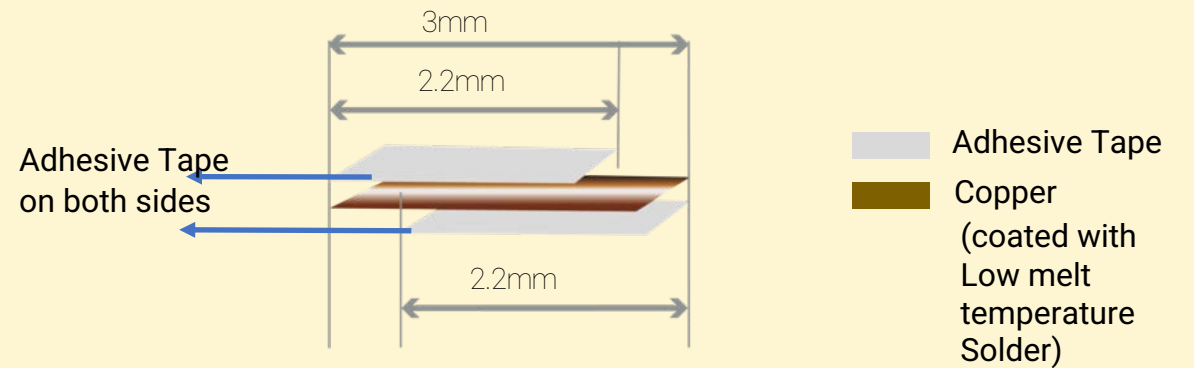
Solar Cell 2

# SolarWat Solution

Innovative PV panel manufacturing technology's  
Three-layer Conductive Tape



2 rows of 12 cells connected in the matrix by  
1-3 layer Conductive Tape



3-layer conductive tape cross section

# SolarWat new panel produces 2.5% more power / m<sup>2</sup> and 12 less power degradation during a long time



## HIGH ENERGY

More than 10%



## PARTIAL SHADING RESILIENCE

Up to thousands of percent more power



## LOWER PANEL COST

Up to 7% less Cost/Watt



## EXTENDED LIFESPAN

Doubled lifespan

8 prototypes Tested and Verified by:



On SolarWat's Demonstration site in Even Yehuda, Israel

# Targeted Market

## Main Implementations

- Building Integrated PV Rooftop Commercial & Resident Applications
- Utility Scale Large Systems



## Expected Geo Markets

- Europe
- Israel
- USA

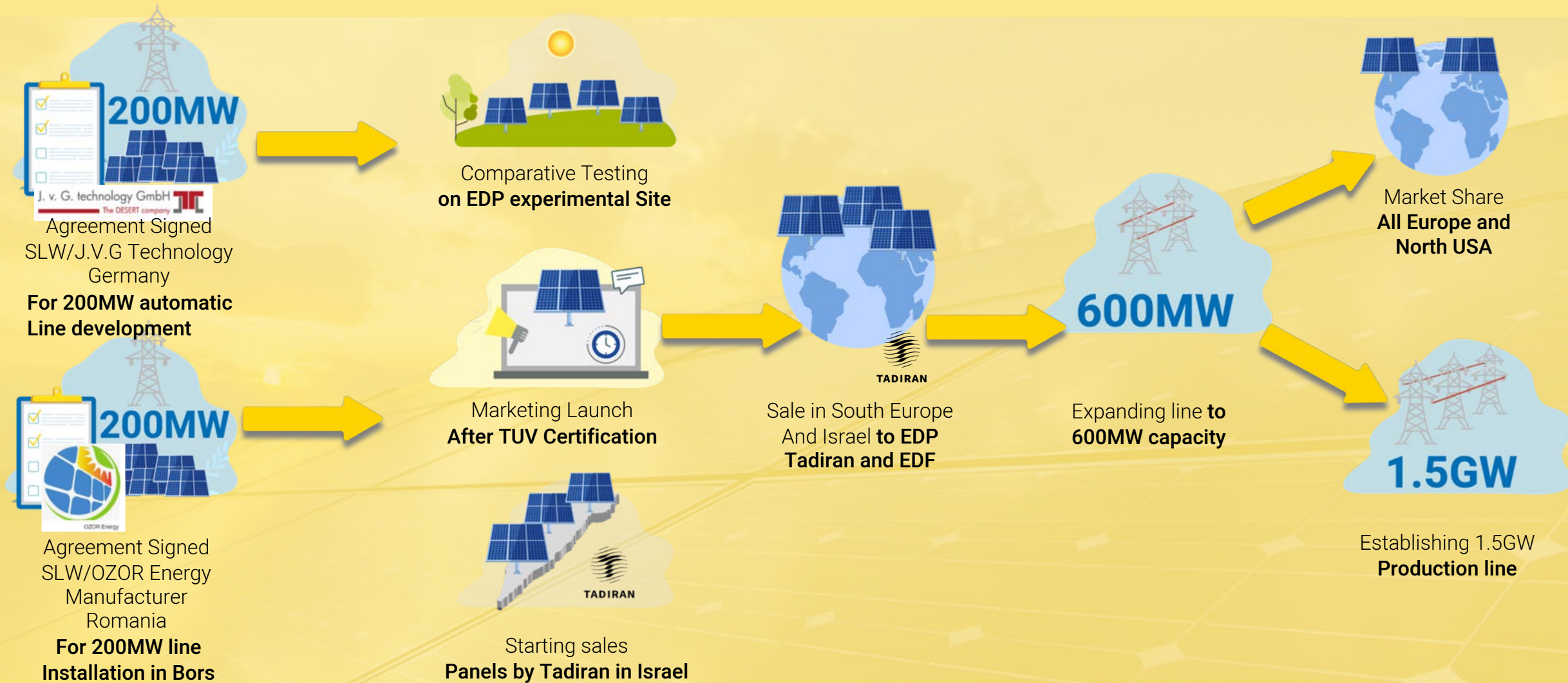


## Potential Customers

- Global Solar System Developers
- Domestic Solar System Manufacturers
- Rooftop Solar System Constructors
- Other Key Stakeholders



# Go to Market



# Company Purpose

Based on the existing 15MW line in Bors (Romania),

A new 200MW PV Panel Manufacturing plant will be established in 2025

Launch the innovative SLW panels sales  
In early 2026

Expanding the PV panel Manufacturing line to 600MW capacity in 2026

Marketing full 600MW production into a worldwide in 2026-2027

Establishing a large-scale 1.5 GW PV panels plant in 2028

# Competitive Landscape

## Is it the same solution?

Like most companies on the market, uses a series of half-cells connected into two strings when the cell is connected with 9-12 busbars and cells are placed one near each other. This causes a matching problem between cells that decrease the energy yield of the panel under different shading conditions, snow residue, production problems impact, etc. Cutting the cell into only two does not decrease cell current to a desirable level that provides significantly higher power losses. Using busbars increases production time and manufacturing costs accordingly. Too much copper is required for 9-12 busbars, which increases the copper consumption and the panel cost. The regular cell placement (instead of shielding placement) increases the panel area by 2.5%

## Is it the same customers?

Most of their sales are in the Far East and less in Europe, but in some significant areas, **SolarWat** panels technology provides significant advantages that will change the market share between these companies. This is actual; first of all, Building Integrated PV struggles with frequent partial shading problems, the same problems that are created in Northern territories due to low sun angle and snow residue. **SolarWat** panel technology provides at least a 10% average higher energy yield that will change the market share and favor **SolarWat**

## What are their limitations?

Solar panel technology is a commonly used technology and lacks the pros that **SolarWat** innovative panels suggest to customers. This is seen in BIPV, Northern Territories, densely populated areas, etc. However, due to inherent higher reliability, lower power degradation, and higher power yield per meter, **SolarWat** will expand its market share because will provide to customers with higher ROI

## How SolarWat is better?

Up to 5% higher power yield under regular sunshine conditions, hundreds percent higher power yield under partial shading conditions, over 10% higher average energy yield, up to 7% lower cost/watt, higher panel lifespan (estimated up to 40 years), eliminated HotSpot that prevents panel burning, 2.5% higher power density per area unit

## Main Competitors





# Value Proposition

SolarWat is only technology for a **utility-scale system** that increasing the power yield at a **lower Cost/W.**

Especially good for **Northern territories** with low sun angle and snow residue.

**Paves the way for a wide range of products in various fields and applications (electrical car, space, etc.).**

The best for densely populated areas and for **Commercial, Residential and Building Integrated PV.**

Very low sensitivity to partial shading, snow, and dirt, making it the best for **road and sidewalk paving.**



# SolarWat Breakthrough technology Main Broader Impact

## Society

Enabling renewable energy adoption through dramatic efficiency improvements and obstacle resilience in space-constrained urban areas.

## Environment & Climate

SolarWat allows the paving of roads and sidewalks by PV panels that save land, reduce fossil fuel by an estimated 0.7%, and avoid significant CO2 emissions.

## Economic

SolarWat's innovations can contribute over \$1.4 billion in cumulative GDP by 2030 as next-generation solar competitiveness grows.

## Energy Efficiency

SolarWat's technology's ability to reduce power losses, increase energy yield, and prevent overheating aligns with Europe's focus on energy efficiency.

## Competitive Advantage

SolarWat's project's innovative approach can position European companies at the forefront of the global solar panel market, enhancing the region's technological leadership.

## Energy Independence

By enhancing the efficiency and reliability of solar panels, SolarWat's technology reduces Europe's reliance on energy imports.

