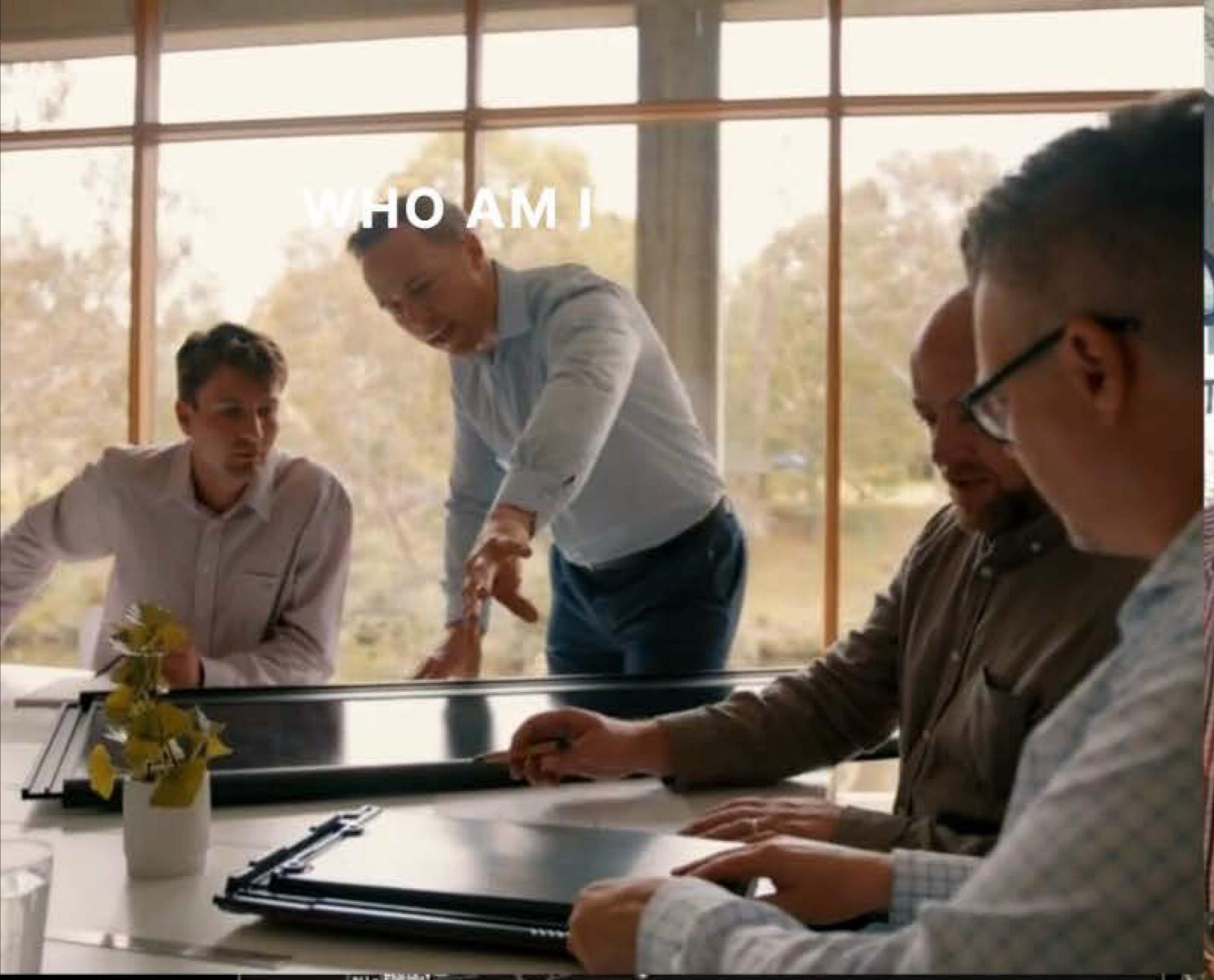


**EXPLORING REAL-WORLD APPLICATIONS OF BIPV,  
ASSESSING THE LEVELISED COST OF ENERGY,  
AND IDENTIFYING FUTURE MARKET  
OPPORTUNITIES**





# SOLAR FARM DEVELOPMENT



Leeson Projects launched in 2015, developing utility-scale solar farms most notably the 34MW Cohuna Solar Farm with a current pipeline of 800MW in the connection application process in Victoria and 1GW in Australia.

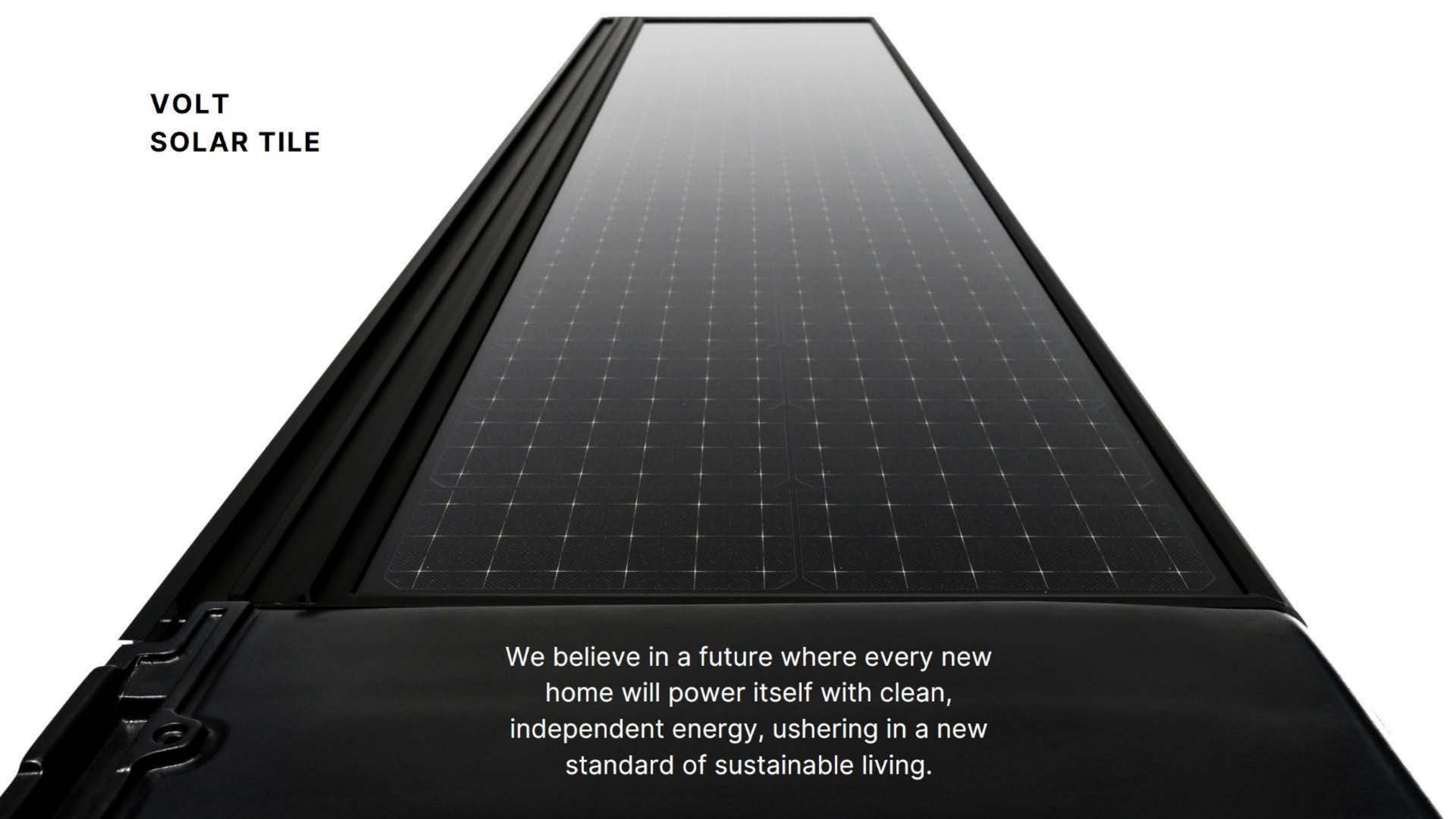


## RESIDENTIAL AND COMMERCIAL SOLAR



"Our vast design and technical knowledge ensures the best possible outcome for our systems."

# VOLT SOLAR TILE



We believe in a future where every new home will power itself with clean, independent energy, ushering in a new standard of sustainable living.

## BIPV APPLICATIONS



## BIPV APPLICATIONS



# YIELD FACADE - SUMMER SOLSTICE



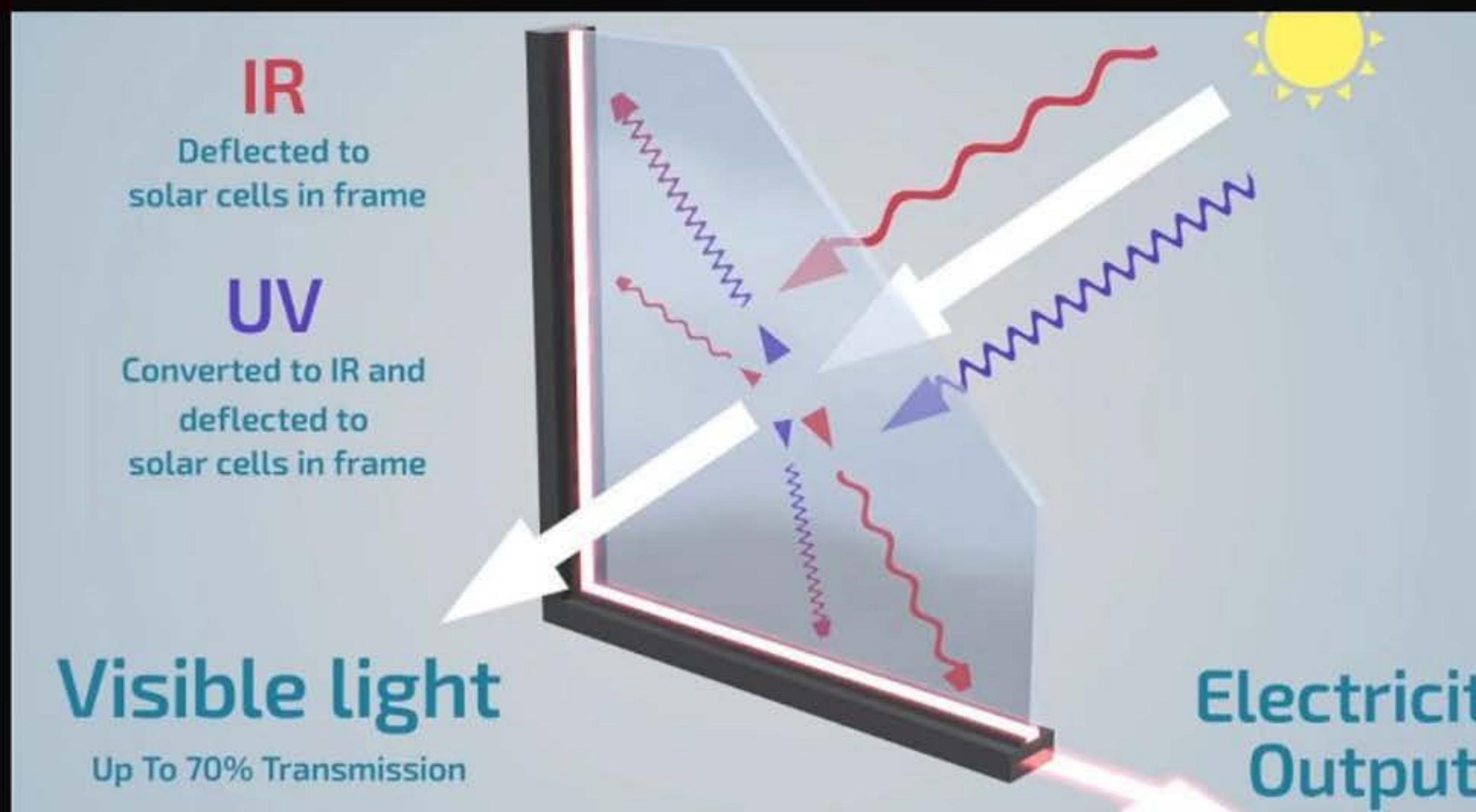


## CLEARVUE SOLAR GLASS

- 3% efficiency
- 70% light transmission

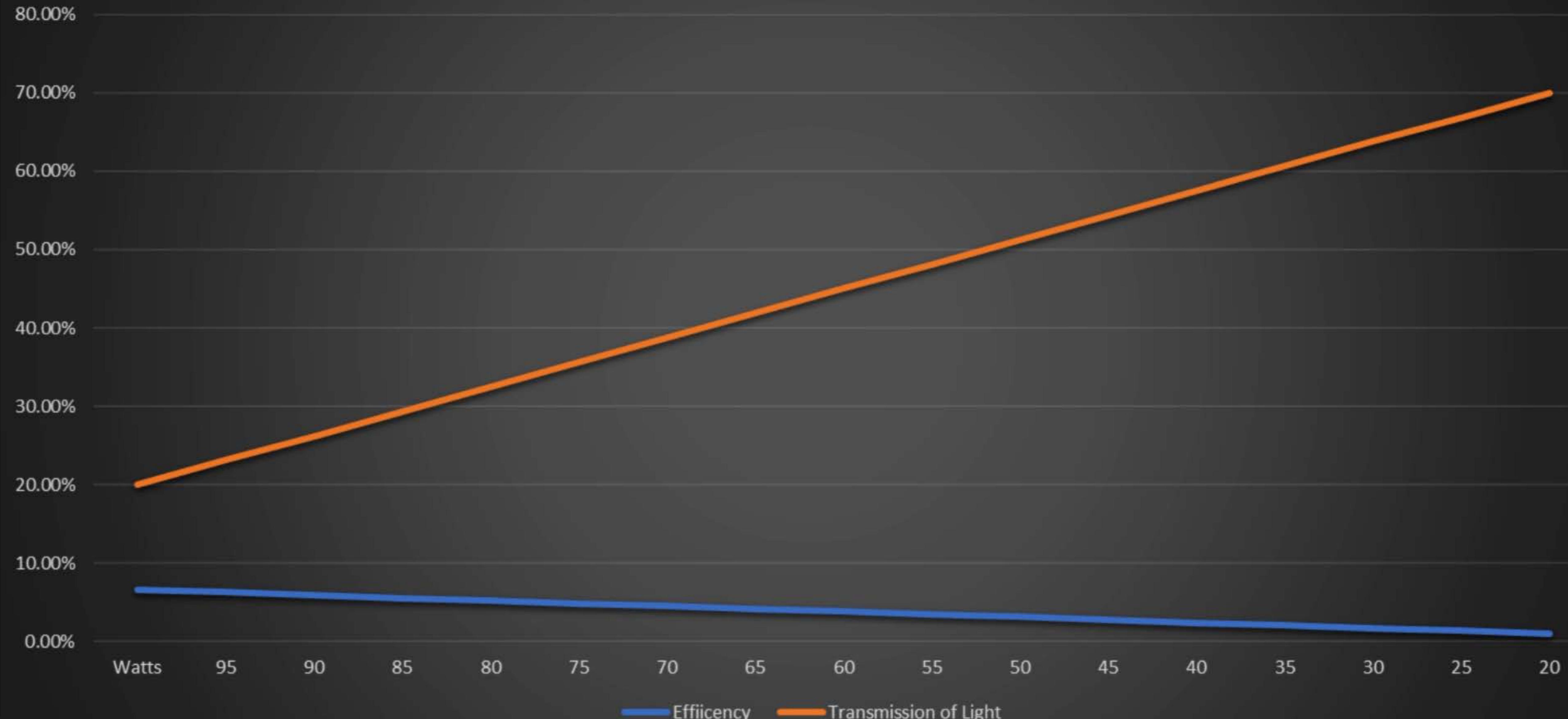
## THINFILM SOLAR GLASS

- 6.6% efficiency
- 20% light transmission



# THINFILM SOLAR GLASS

## THINFILM SOLAR GLASS LIGHT TRANSMISSION



# CLEARVUE



**Visible light**

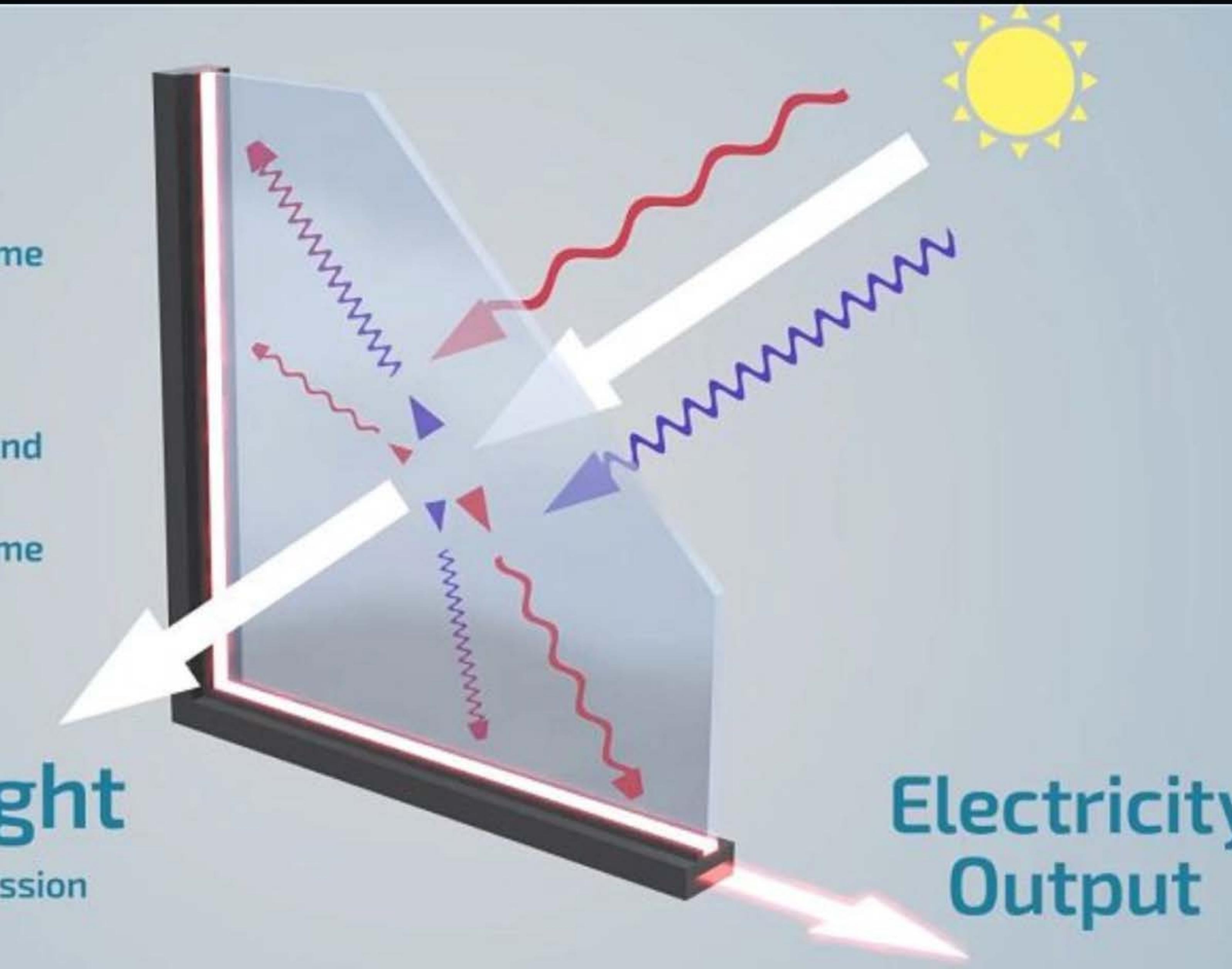
Up To 70% Transmission

**IR**

Deflected to  
solar cells in frame

**UV**

Converted to IR and  
deflected to  
solar cells in frame



**Electricity  
Output**

# SOLAR GLASS CHALLENGES

- low efficiency and performance
- electrical connections
- electrical installation cost
- isolation
- Maintenance access

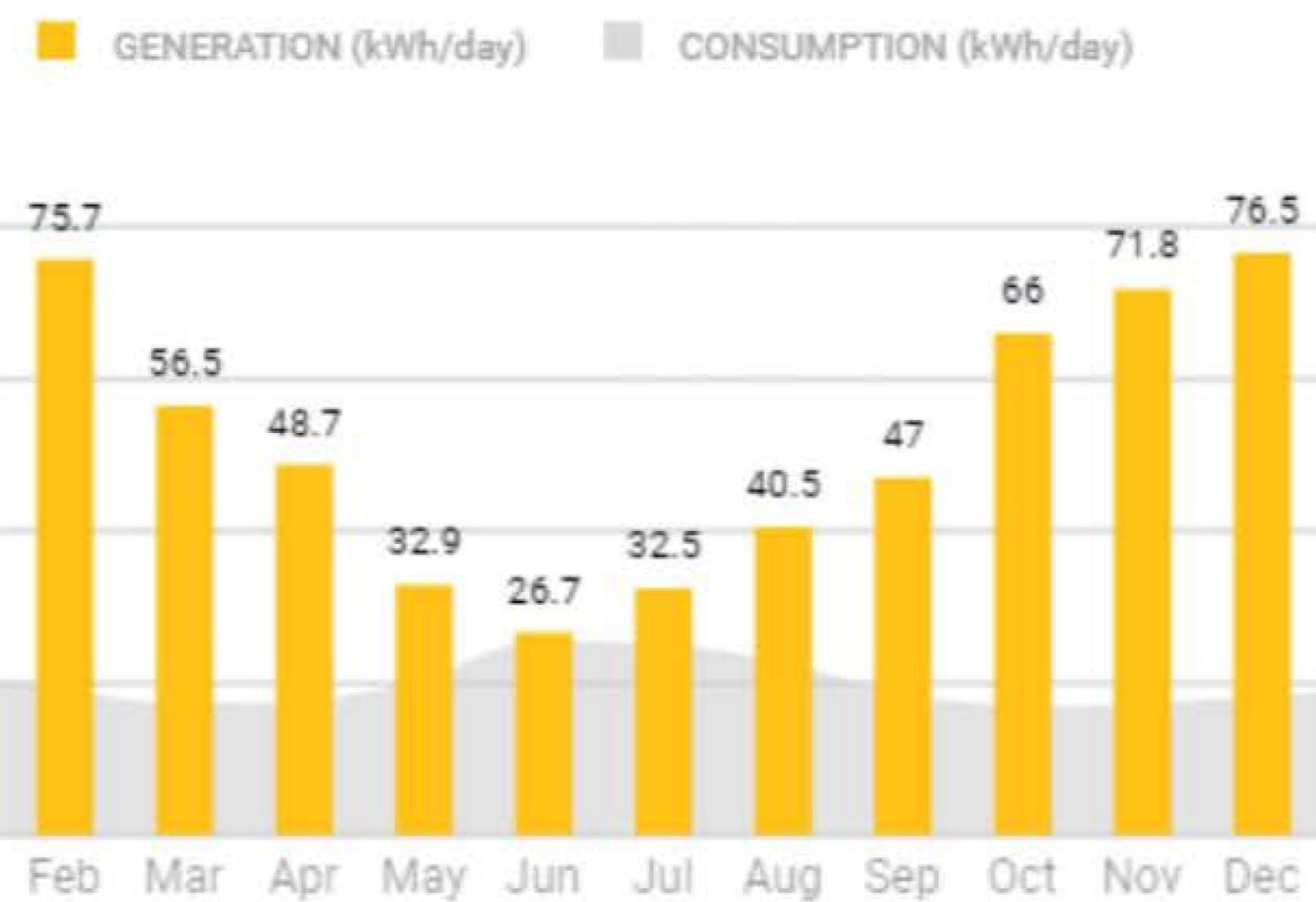


# SOLAR GLASS PERFORMANCE

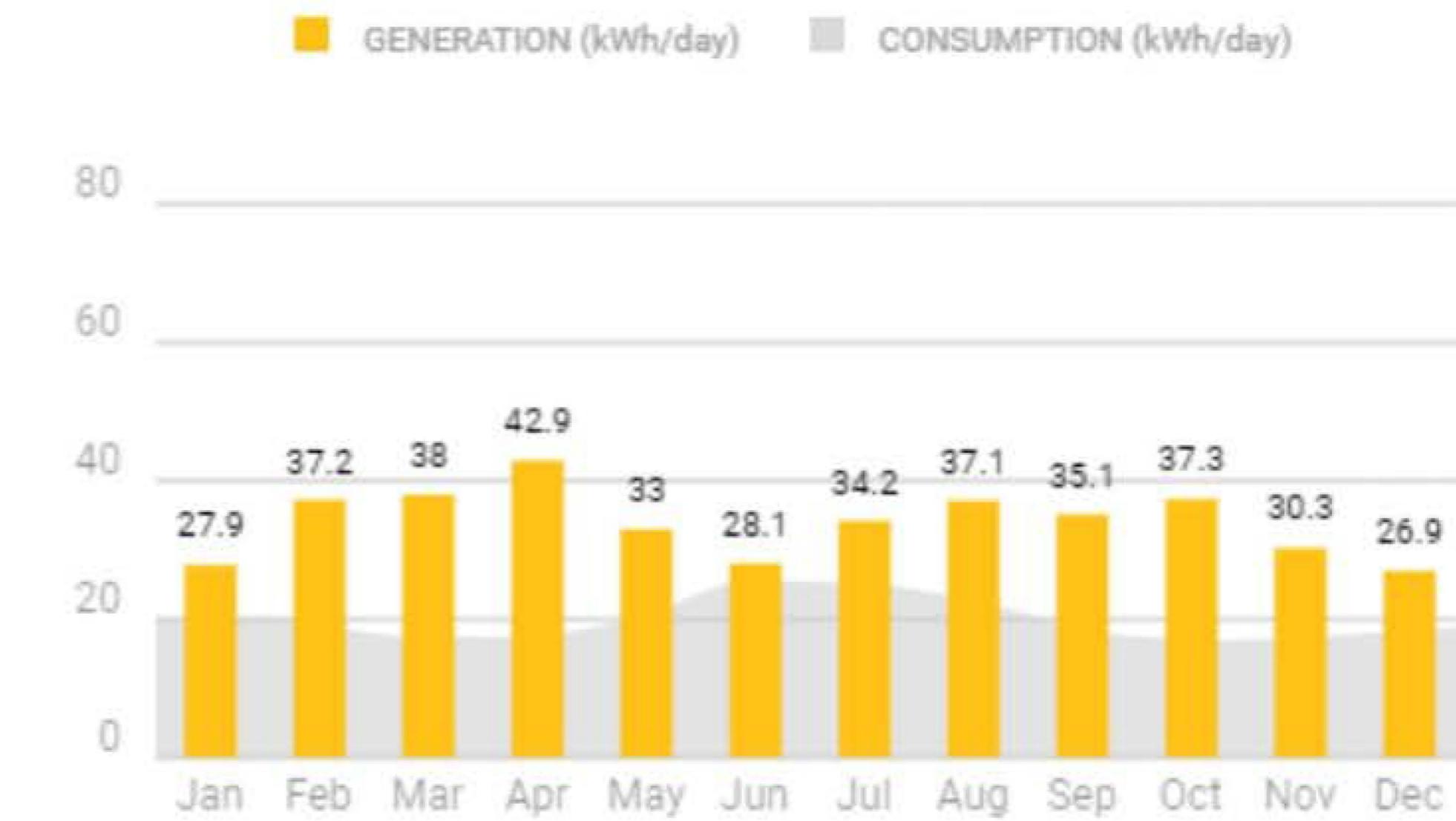
15kW System Melbourne cbd  
22 degrees north no shading

15kW System Melbourne cbd  
90 degrees north no shading  
performance reduction calcualted 37%  
Actual 52%

System Performance



System Performance



# BIPV FACADES



ACCESS



WIRING



# ISOLATION



Isolator Locations and



# FACADES AND WINDOWS

## BUSINESS CASE

# LCOE OVER 20 YEARS

Total cost of system PV only - \$18,000

Total Cost of Extrusion and Glass Installation - \$26,000

Total Cost of System - \$44,000

Energy Generation 20 years - 76,800kWh

Simplified LCOE (No Maintenance) - \$23.4 cents per kWh

Simplified LCOE Including Facade (No Maintenance) - \$57.3 cents per kWh

Volt<sup>°</sup>

# PLANUM

THE WORLD'S MOST POWERFUL  
SOLAR TILE, WITH A MAXIMUM  
POWER OUTPUT OF 115W, AND  
18.8 % EFFICIENCY.

## PLANUM ROOF TILES



### MECHANICAL CHARACTERISTICS

Cell Size (mm) 166 x 83

No. of cells 32

Module Size (mm) 1723 x 445 x 54

Module Weight (KG) 12

Fixing Method Screwed at top. Interlock at nose (refer manual). This product must not be installed using clamps.

Fire Class Rating UL 1703 Class C



LODGE

MAX POWER OUTPUT OF  
105W WITH AN INCREDIBLE  
19.5% EFFICIENCY.

PRESTIGE



ETON



PREMIERE



#### MECHANICAL CHARACTERISTICS

---

Cell Size (mm) 166 x 83

---

No. of cells 34

---

Module Size (mm) 1542 x 445 x 57

---

Module Weight (KG) 10

---

Fixing Method Screwed at top. Interlock at nose (refer manual). This product must not be installed using clamps.

---

Fire Class Rating UL 1703 Class C

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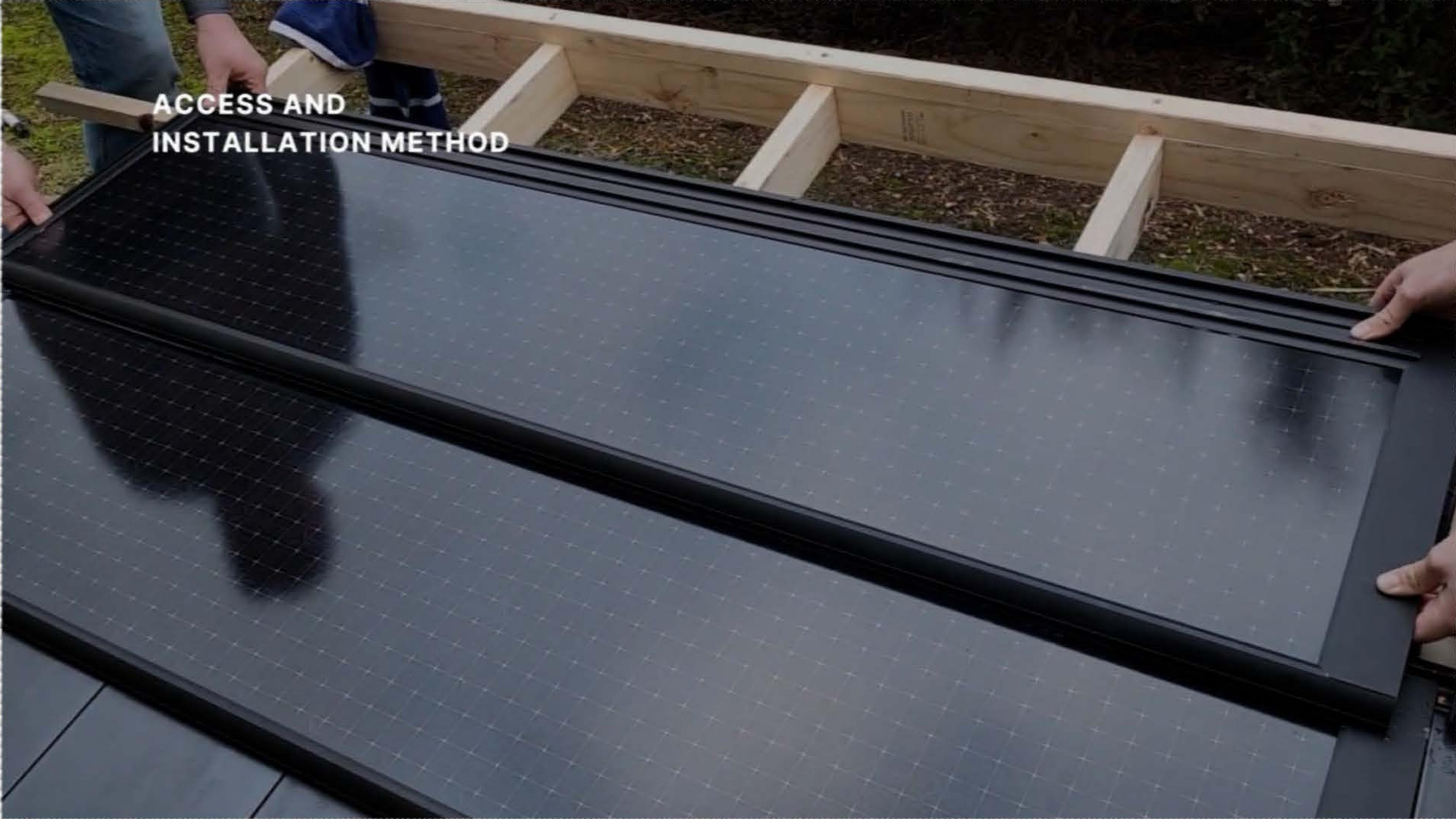




**VOLT SOLAR TILE**

## ACCESS AND INSTALLATION METHOD

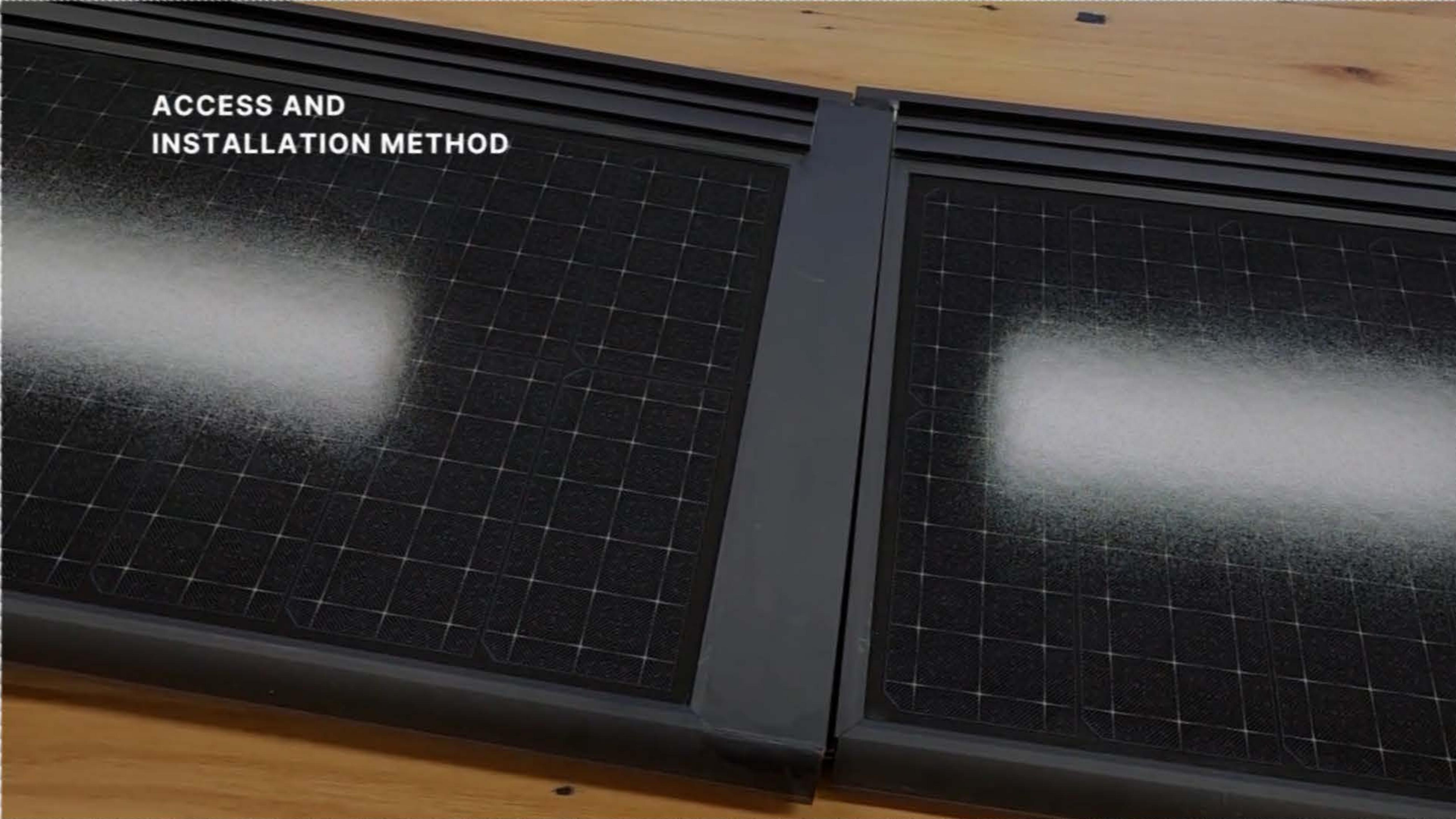




A close-up, top-down view of a person's hands installing dark grey solar panels onto a light-colored wooden frame. The panels are being held in place by white metal brackets. The background shows a grassy area with fallen leaves.

## ACCESS AND INSTALLATION METHOD

## ACCESS AND INSTALLATION METHOD



## ACCESS AND INSTALLATION METHOD



# ACCESS AND INSTALLATION METHOD



WIR

VOLT

# INSTALLATION BARRIERS



# LCOE OVER 20 YEARS



Total cost of 5kW Volt System - \$13,000

Energy Generation 20 years - 122,000kWh

Simplified LCOE (No Maintenance) - \$10.6 cents per kWh

# ADDRESSABLE MARKET - AUSTRALIA

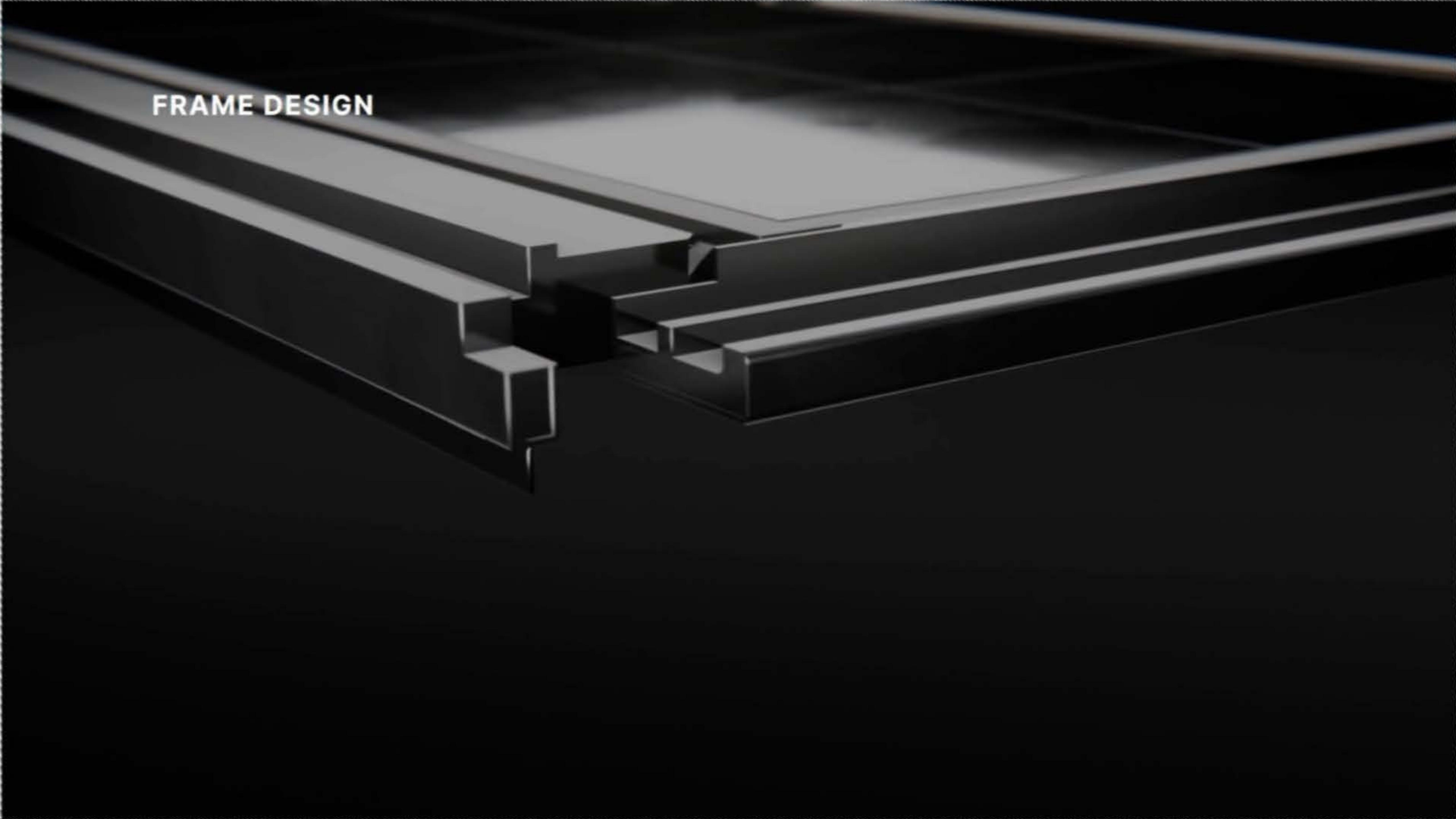
- 11,000,000 Homes
- 170,000 Homes built per year of which -
- 100,000 Semi Detached Dwellings
- NCC Requirements for Energy Budget
- BIPV - New Home \$76M Market in 2025 and Growing



A stack of several solar panels, tilted at an angle, against a dark background. The panels are dark grey or black with a grid of lighter-colored cells. They are stacked in a staggered, overlapping fashion.

**PATHWAY TO  
MANUFACTURING IN  
AUSTRALIA**

## FRAME DESIGN



# COST BENEFIT

- Dedicated Manufacturing Line Creating a Cost benefit
- Automated for Bespoke Product
- Quality improvement and control
- Maintaining IP in Australia
- Exporting Globally
- Australia's only manufacturer to export solar modules
- Vertical manufacturing opportunities