

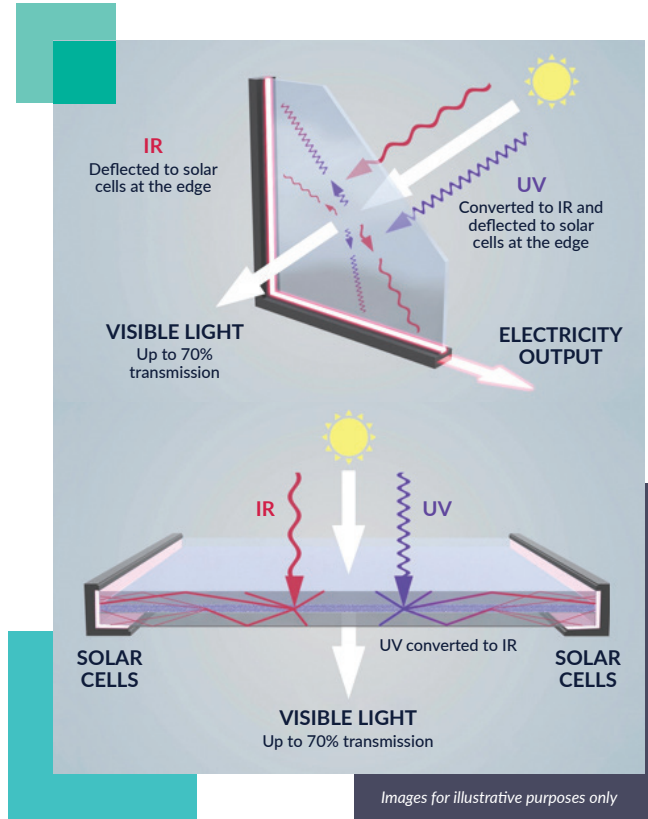


OUR TECHNOLOGY

At ClearVue Technologies, we see a world where nearly all buildings and other surfaces become solar photovoltaic (PV) collection sources and a key part of the response to the climate crisis, with the ClearVue PV Window Integrated Photovoltaics (WIPV), glass PV and smart facade solutions forming an integral part of that future.

ClearVue's patented innovative glazing technology uses an activated interlayer, sandwiched within a panel composed of a number of glass panes, some of which are coated by specialised thin-films.

Our advanced glazing system combines: our proprietary nano and micro particles dispersed into an interlayer; a clever internal design; and our custom shaped PV cells. The combined solution prevents heat and unwanted solar radiation (UV and infrared) from penetrating the glass pane. The unwanted solar radiation is then redirected to the edges of the glass pane for harvesting through standard crystalline PV cells to create clean energy - all whilst allowing natural visible wavelength light to pass through, largely unaltered, to provide maximum natural daylighting.



TECHNICAL PROPERTIES - GREENHOUSES

Electrical, Optical & Thermal Parameters

For a 1.2m x 1.2m ClearVue standard solar unit

Parameters	Values
Energy produced per unit	40 watts at peak
Voltage open circuit V_{oc}	61.5V DC
Amperes short circuit I_{sc}	0.835 A
Maximum power voltage V_{mp}	52 V
Maximum power current I_{mp}	0.77 A
Tolerance	±5%
Fill Factor (FF)	Up to 78%
Visible transmission	Up to 70% ($T_{direct} + T_{diffused}$)
U-Value	1.4W / (m ² .K) with air 1.16W / (m ² .K) with Argon
SHGC *subject to coating selection	<0.67

Mechanical & Structural Properties

For a 1.2m x 1.2m ClearVue standard solar window

Parameters	Values
Wind pressure for deflection	800 Pa
Ultimate strength	3000 Pa
Water penetration test pressure (EN)	900 Pa
Air infiltration test	150 Pa
Height of load impact test (EN)	450mm
Sound test (acoustic insulation)	37dB

COMPLIANCE & CERTIFICATIONS



Listed to IEC & UL 61730 - 1 & 2