



ClearVue^{PV}

ClearVue^{PV} Building Products



Greenhouse Solar Solution

Greenhouse Solar Solution

For a Sustainable Growing Environment

ClearVue^{PV} Greenhouse Glass is engineered to integrate into industry-standard frames, provides 90% transparency to promote healthy plants and delivers clean energy generation due to its bifacial component. With ClearVue, greenhouses can be green on the inside and the outside.

Benefits

- Compatible with standard greenhouse framing systems.
- High-efficiency solar cells maximise energy generation.
- Custom thicknesses available upon request to enhance structural safety.
- Can be utilised in combination with ClearVue Black Spandrel for energy generation.
- IP68 water resistance for a long lifespan.
- Silicon solar cells deliver a proven track record of reliability and longevity.
- Project-specific sizes and bespoke options available.
- Purpose-engineered for agricultural greenhouse environments.



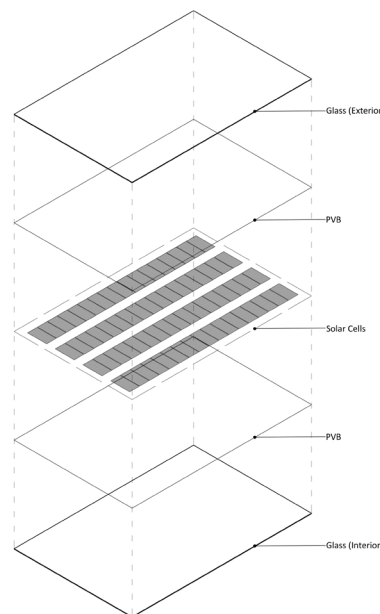
ClearVue^{PV} Greenhouse Solution Specifications

High Transmittance BIPV Glass

ClearVue^{PV} Greenhouse products provide a high-performance energy generating solution for roof light, canopy and other special glass projects where light transmittance is a priority.

Product Features

- Customisable crystalline silicon building integrated photovoltaic (BIPV) glass.
- Clear appearance with varying solar cell distribution for desired light to energy generation levels.
- Construction grade material thicknesses.
- Equipped with ClearVue Thermal Management Junction Box to increase reliability and lifespan.
- Panel size, glass thickness, and shape can be customised and tailored.
- Highly transparent with excellent light transmittance.
- High efficiency for enhanced energy generation.
- IP68-rated water resistance, fire tested, and wind resistant.



ELECTRICAL PARAMETERS

Panel Size	1750 x 1150mm		
Cell Type	TOPCon		
Cells Layout	17 x 6	17 x 4	17 x 2
Module Type	Hex Track	Quad Track	Double Track
Transparency	10%	40%	70%
Power Output (P_{max})	390W	260W	130W
Power Output Tolerances (ΔP_{max})	±3%	±3%	±3%
Solar Cell Efficiency	25.40%	25.40%	25.40%
Voltage at Pmax (V_{mpp})	62.22V	41.48V	20.74V
Current at Pmax (I_{mpp})	6.27A	6.27A	6.27A
Open-Circuit Current (V_{oc})	74.66V	49.78V	24.89V
Short-Circuit Current (I_{sc})	6.58A	6.58A	6.58A

STC: 1000W/m² irradiance, 25 degree cell temperature, AM1.5

CONSTRUCTION MATERIALS

Glass (material/thickness)	3.2mm+3.2mm
Baseplate (material)	PVB
Junction Box (protection degree)	≥IP68
Cable (length/cross-sectional area)	300mm/4mm ² /Customisable
Plug connector (type/protection degree)	MC4/IP67 (minimum)

Case Study

Murdoch University R&D Greenhouse



Overview

Partially funded by a AUD\$1.6 million grant from the Australian Federal Government's AusIndustry Cooperative Research Centres Projects (CRC-P) program and built by Ryan Winston of blanc. Construction, the greenhouse incorporates a range of sensors that record and present an array of data in real time, providing scientists with accurate information relating to conditions like temperature, humidity and the actual amount of light that plants are receiving.

Plant trials were undertaken by an interdisciplinary research team (which included ClearVue research personnel and Murdoch University plant scientists), led by Professor Chengdao Li of Murdoch University. The results of our 2021-2022 greenhouse studies have been peer-reviewed and published in Elsevier's prestigious Cleaner Engineering and Technology journal; this initial article summarising our older plant trials has already attracted very strong attention and 14 citations on Google Scholar. The results of two recent grow seasons and new plant trials conducted between 2024-2026 will be published in 2026.

System Specifications

Location: Perth, Australia
Client: Murdoch University & ClearVue Technologies
Year: 2021
Product: ClearVue Vision Glass
Area: 202m²
System Size: 6.1kWp

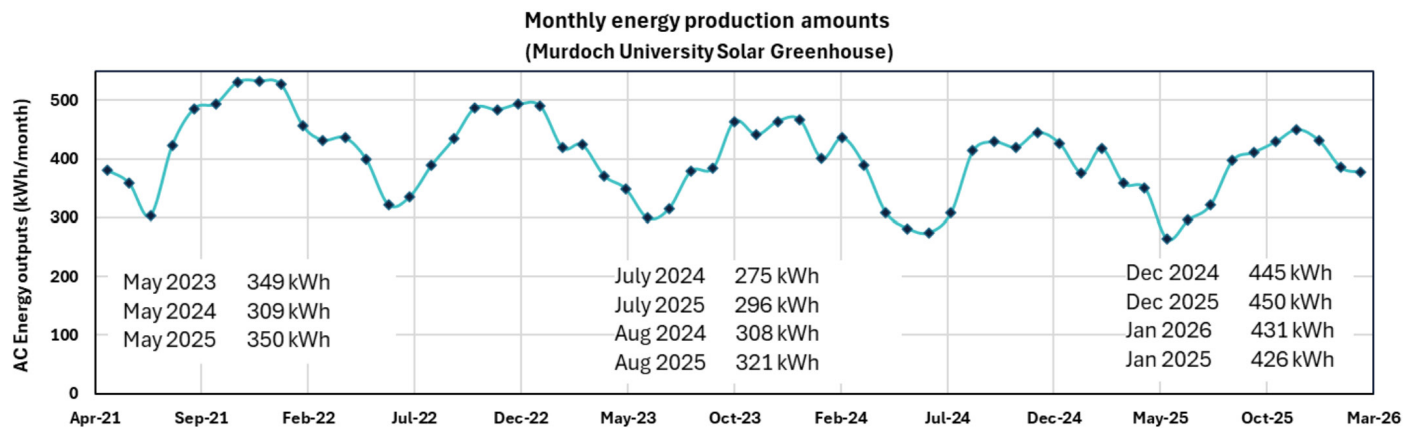


“Thank you to all those involved in its construction and who have supported ClearVue throughout this significant milestone project.” -- ClearVue

Long-Term Energy Performance

Murdoch University R&D Greenhouse

Overall, the Murdoch greenhouse validates ClearVue's ability to deliver durable, high-performance, transparent agrivoltaic solutions that maintain energy stability over time, even in demanding environments.



The ClearVue solar glass greenhouse at Murdoch University demonstrates strong, stable long-term energy generation under real-world operating conditions. While an initial decline in output was observed during the first 12–18 months, this was expected due to early PV “burn-in”, soiling, and the absence of regular cleaning. Importantly, after this initial period, the system’s energy generation stabilised and remained highly consistent year-on-year, driven primarily by seasonal weather rather than degradation.

Despite operating in a dust-prone agricultural environment, the greenhouse continues to perform well. Notably, several months in 2025 produced equal or higher energy output than the corresponding months in 2024 and earlier years, highlighting the durability and long-term reliability of the Gen 1 ClearVue window-integrated PV technology.



Quality Control & Quality Assurance

We are dedicated to delivering high-performance, high-quality, long-lasting and safe façade solutions.

Warranty

12 year product warranty

30 year linear power performance warranty

Safety & Fire Testing

PV safety, fire classification, fire performance of external cladding

Testing & Inspection

Visual inspection of solar cells and testing for quality & performance

Electroluminescence

Inspection and testing of interlayer and solar wafers

Environmental & Stress Testing

Water infiltration, weight bearing, impact, heat, cold and humidity

Quality and Safety

ClearVue^{PV} Solar Greenhouse Solution are engineered to meet and/or exceed industry standards for quality, lifespan and safety.

By undergoing rigorous testing, compliance and certifications, our solar façade solutions demonstrate the reliability and suitability for deployment in diverse building envelope applications. This ensures optimal energy production, fire resistance and thermal efficiency. Adherence to these standards underscores our commitment to deliver high-quality, dependable products that contribute to sustainable and resilient built environments.





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For more detailed product information, warranty terms, and installation guidelines, please refer to official specifications documentation for each individual product or contact our technical support team.