

## ASX RELEASE | CLEARVUE TECHNOLOGIES LIMITED

(ASX:CPV | OTC:CVUEF)

## Critical certifications achieved in preparation for scaled global commercialisation

### HIGHLIGHTS

- **Critical international certifications achieved** from TÜV and Intertek, with further test results expected throughout 2024.
- **Activities undertaken to support full-scale commercialisation for international licensees:**
  - **Expanded ClearVue PV product range:** ClearVue Power Façade™, including solar spandrel, solar cladding in a range of colours, and architectural BIPV (skylight and balustrade glass), launched at AIA24
  - **New licensee sales tools to support sales**, including:
    - a new **high-rise archetype** for use by international licensees, building and architectural firms which demonstrates a new energy model validated across 15 global locations showing how the ClearVue Power Façade products when deployed across and throughout the façade can meet or exceed the energy needs of the building;
    - an independent **US tax study to support US sales** for use by US licensees, highlighting federal tax incentives; and
    - a new **Custom Flash Tester** for use by licensed manufacturers to certify the power performance of manufactured Generation 2 solar PV glazing.

**26 June 2024:** Smart building materials solutions company ClearVue Technologies Limited (ASX:CPV) (*ClearVue* or the *Company*) has achieved critical international certifications from TÜV and Intertek needed for scaled global commercialisation.

The Company has also expanded its Generation 2 product suite and has developed new licensee tools to support the next stage of international sales, including development of the following:

- **High-rise Archetype 3:** which shows how the ClearVue Power Façade can improve the performance of buildings and showcases what is possible to building and architectural firms through an energy model validated in 15 global locations that demonstrates ClearVue products' capacity to generate a large share of the buildings energy. In many cities this can surpass the buildings demand and is a step towards 'net zero' building. This was not feasible in high rise towers before with conventional PV products.
- **Tax analysis to assist US sales:** an independent report by BRAYN Consulting shows that ClearVue's products qualify for tax credits and other incentives under the United States Inflation Reduction Act. This greatly enhances the competitive edge of the products by shrinking the price gap when compared to conventional options.
- **Custom Flash Tester:** This flash tester will be custom-made for licensed producers to test the power performance of Generation 2 solar PV glazing. It works with standard IGU production lines

and gives quality assurance and important electrical data to ClearVue licensees. It does this without slowing down the CPV IGU production rate, or taking the glass off of the line.

Commenting on the certification milestones and progress, Martin Deil, Global CEO of ClearVue, said:

*"ClearVue now has the key elements in place to scale our commercialisation through licensees in significant markets, with confirmation of a successful outcome on the certification testing completed to date. Achieving our essential international code compliance certifications is a pivotal milestone, enabling our licensed partners to confidently promote and sell ClearVue solar glass and facade products globally. These certifications ensure our products meet stringent regulatory standards, allowing architects and specifiers to order from our licensees with confidence.*

*In addition to an extensive product development and testing regime undertaken over the past approximately eighteen months, the Company has in the last six months undertaken several initiatives to support entering the full commercialisation phase. We have significantly expanded our product range and validated energy efficiency capabilities for high-rise through the completion of a new high-rise specific Archetype-3. We have also investigated significant tax incentives and financial benefits available to our US customers, giving us a substantial boost in our sales efforts in the US market.*

*Further, we received overwhelmingly positive feedback from the attendees at the AIA Conference on Architecture & Design conference in Washington DC, where we launched our expanded product range and full product catalogue. This reaffirmed the immediate need for our building envelope solutions and validated our market timing.*

*Finally, we have moved forward on the design and procurement of custom-designed flash testing equipment needed to measure the power performance of licensee-manufactured ClearVue solar vision glass panels - a critical step in the production process.*

*Having achieved these milestones with crucial certifications, now including new sales tools available to the ClearVue team and our license partners, we are now well-positioned to drive a significant step change in our global sales, supporting the construction industry's transition towards net zero energy buildings."*

## **Certifications and Testing**

ClearVue has achieved critical certifications for its products, ensuring compliance with international building codes and regulations. These certifications for ClearVue's Generation 2 vision glass include:

- Insulating Glazing Certification Council (IGCC) - seal certification;
- EN13501-1 - combustibility with rating confirmed to an industry leading rating of A2-s1, d0;
- IEC 61730 - electrical, heat, fire and seal; and
- IEC 61215 - electrical and seal.

These certifications are essential for the inclusion of ClearVue's vision glass products in building design specifications, enhancing confidence among architects and specifiers globally (see **Annexure** for the table of completed testing).

Critically these certifications validate the Generation 2 vision glass system design and ClearVue's unique ability to pass wiring across the seal barrier.

Additional testing is continuing under UL's testing regime for UL 61730 and UL61215 (harmonised with IEC 61730 and 61215) for the Generation 2 vision glass with results expected in Q4 2024.

In addition to the above certifications, a further nine certifications have been completed for other products in ClearVue's expanded product range. Overall, more than 30 tests have been undertaken across the entire product range, with additional certifications expected throughout H2 CY24 across product types and markets.

### **Product range expanded**

ClearVue has finalised an expanded range of Building Integrated Photovoltaic (BIPV) products, now branded as the ClearVue Power Facade™. This includes solar spandrel, solar cladding, and architectural BIPV (skylight and balustrading glass), designed to cover nearly all façade surfaces. This strategic expansion is projected to increase the total addressable market by USD 350 billion<sup>1</sup>, offering more design flexibility and enhancing the financial viability of BIPV projects. The colours, patterns and transparency options for the various façade solutions mean that solar no longer needs to be black - architects no longer need to compromise on visual design to deploy alternative energy solutions.

These products are industry leading in combustibility performance and are fully certified for deployment.

The ClearVue Power Facade™ was launched at the AIA Conference on Architecture & Design (AIA24) in Washington DC. A comprehensive product catalogue and brochures for the expanded product range have been shared with our licensees to support their sales efforts, and to potential customers.

### **Archetype-3 demonstrates energy efficiency and net zero capabilities**

Further to the Company announcement of 12 January 2022, the Company re-engaged with independent Canadian consultancy Footprint to produce building energy modeling on a high-rise building. The new modelling, 'Archetype-3' validates the potential of ClearVue products to assist end-customers to create buildings that meet material decarbonization goals including achieving high levels of energy generation all while ensuring architects retain maximum design flexibility.

The 'ClearZero Archetype-3', a 36,800 m<sup>2</sup> forty-story office building model, demonstrates that ClearVue products could meet between 50% and 100%<sup>2</sup> of the building's energy demand across 15 global locations including cities in Australia, North America, Europe and Asia. The Archetype-3 building design utilises ClearVue solar spandrel and solar vision glass in different ratios. The modelling provides independent third-party validation demonstrating that 'net zero' buildings utilising ClearVue products are possible in many global locations. Archetype-3 will be used by ClearVue and its licensed partners as a key tool in the sales process. The high-rise archetype can be digitally placed into position at the location of a potential project. The tool can then be used to calculate indicative power generation and

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<sup>1</sup> Cladding Systems: [Cladding Systems Market Global Forecast to 2026 | MarketsandMarkets](#)

Spandrel Glass: [Cladding Systems Market Global Forecast to 2026 | MarketsandMarkets](#)

<sup>2</sup> At all times subject to project location and shading considerations - some locations may return greater than 100% of a building's energy demand.

comparative thermal performance. This data can then be used to calculate payback periods on ClearVue products based on the specific project.

The new Archetype-3 confirms levels of onsite solar energy generation that are able to deliver materially significant reductions in terms of building operating costs and carbon emissions.



*Image: Artist's impression of ClearVue Archetype-3 40-storey building - with ClearVue vision glass and cladding products applied. Every surface of the façade produces energy.*

### **US tax incentives**

ClearVue collaborated with BRAYN Consulting to explore federal tax incentives available under the US Inflation Reduction Act. The study indicates that ClearVue's PV Solar Glass and curtain wall products qualify for the Investment Tax Credit (ITC) and Energy Efficient Commercial Buildings Deduction (179D). These incentives can significantly reduce the cost of new builds and retrofits, potentially covering up to a maximum of 60% of the cost of ClearVue products to be deployed in a project - assuming various bonus requirements are met.

The study highlights that substantial financial incentives that exist for end-customers deploying ClearVue products including: Eligibility for Energy Credits and Deductions, Investment Tax Credit (ITC), Energy Efficient Commercial Buildings Deduction (179D), Bonus Opportunities (Project Bonus, Domestic Content Bonus, Energy Community Bonus, Low-Income Community Bonus).

The Company will be making the Study available upon request to qualified sales leads in the US as part of its US sales process.

### **Custom flash tester**

The Company has partnered with specialist testing equipment manufacturers to design, develop and manufacture custom-designed flash testing equipment, that can be integrated into the existing production lines of licensed IGU manufacturers. This technology will ensure the quality of ClearVue branded solar IGUs by confirming the generation and electrical performance of each individual glazing

product without removing the glass from the production line, lowering the rate of production or impacting line productivity.



Image: Photographs of mockup large scale flash testing equipment.

**Authorised by the Board of ClearVue Technologies Limited.**

**FOR FURTHER INFORMATION, PLEASE CONTACT:**

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**ABOUT CLEARVUE TECHNOLOGIES LIMITED**

ClearVue Technologies Limited (ASX: CPV) is an Australian technology company that operates in the Building Integrated Photovoltaic (BPIV) sector which involves the integration of solar technology into building surfaces, specifically glass and building façades, to provide renewable energy. ClearVue has developed advanced glass technology that aims to preserve glass transparency to maintain building aesthetics whilst generating electricity.

ClearVue's electricity-generating glazing technology is strategically positioned to complement and make more compelling, the increased use of energy-efficient windows now being regulated in response to global climate change and energy efficiency goals.

Solar PV cells are incorporated around the edges of an Insulated Glass Unit (IGU) used in windows and the lamination interlayer between the glass in the IGU incorporates ClearVue's patented proprietary nano and micro particles, as well as its spectrally selective coating on the rear external surface of the IGU.

ClearVue's window technology has application for use in the building and construction and agricultural industries (among others). ClearVue has worked closely with leading experts from the Electron Science Research Institute, Edith Cowan University in Perth, Western Australia to develop the technology.

To learn more please visit: [www.clearvuepv.com](http://www.clearvuepv.com)

## ANNEXURE

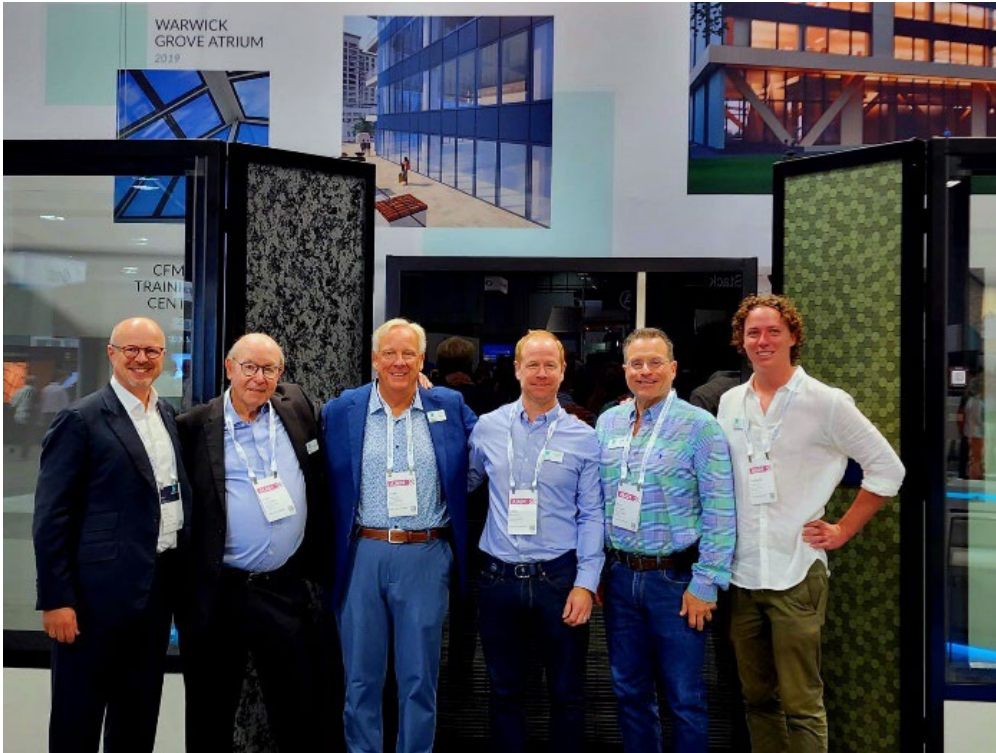


Image: the ClearVue team in front of the ClearVue products display at AIA24 including L to R: Global CEO Martin Deil, Chairman Victor Rosenberg, US President & CEO Charles Mowrey, Chief Business Development Officer Clifton Smythe, US BDO Kevin Debasitis and Mechatronic Engineer Chris Cole.

### Certification Tests Completed to Date:

Product	Certifier	Standard	Test Description	Status
Vision Glass	IGCC	ASTM E 2190	Performance test for the sealed IGUs durability	Completed
	TÜV SÜD	EN13501-1	Combustibility test	Completed (A2 S1 D0)
	TÜV SÜD	IEC 61730 & IEC 61215	BIPV product electricity safety testing	Product testing successfully completed, pending manufacturing facility inspection
All Black Spandrel	TÜV SÜD	EN13501-1	Combustibility test	Completed (A2 S1 D0)
	ATWA	AS 1530.3	Radiant neat combustibility	Completed
Solar balustrade/ railings/greenhouse solar glass	TÜV SÜD	IEC 61730 & IEC 61215	BIPV product electricity safety	Completed
	TÜV SÜD	EN13501-1	Combustibility test	Completed (A2 S1 D0)

	ATWA	AS 1530.3	Radiant Heat Combustibility	Completed
Solar Cladding	TÜV SÜD	IEC 61730 & IEC 61215	BIPV product electricity safety	Testing completed, awaiting certificates
Solar Cladding	TÜV SÜD	EN13501-1	Combustibility test	Testing completed, awaiting certificates