

ASX Release | ClearVue Technologies Limited (ASX: CPV)

Major Product Development– Single and Double Glazing

Highlights

- ClearVue develops new single and double-glazed prototype products
- New designs significantly expand upon and open up new market opportunities including for retrofit, transportation and markets that have not yet moved to multi-glazing formats
- New designs based on previously announced improvements to existing technology platform
- Work completed in California with solar specialists D2 Solar

18 May 2021: Smart building materials company ClearVue Technologies Limited (ASX:CPV) (**ClearVue** or the **Company**) is pleased to announce the development of new format single and double-glazed product designs increasing its product range and offering to include, single, double and triple-glazed formats.

Further to the Company's [ASX Announcement of 7 May 2020](#) when the company announced that it had developed a new PV design that increased power by 33% the Company is pleased to confirm that the design developments used to increase the power in the Company's core triple-glazed design have now been implemented into a single-glazed monolithic glass panel design and also into a double-glazed panel design.

The ability for the Company to be able to offer a power producing single-glazed laminated glass product and double-glazed low-e IGU product in addition to its existing triple-glazed design is something that the market has been asking for, especially markets that have not yet moved to multi-glazing formats such as in Singapore, Malaysia, India, China and even parts of Australia.

The new single glazed and double-glazed designs are a major step forward for the Company and significantly expand the Company's opportunities for sales into markets where triple-glazed is not applicable, or otherwise readily accepted currently. Equatorial geographies such as in South East Asia where the sun is at a high angle have traditionally been slow to adopt multi-glazed solutions. China has a wide range of temperatures including much colder temperatures where multi-glazed formats although logical, grapple with the additional cost introduced by the multiple layers of glass in multi-glazed designs. The Company expects that the single glazed and double-glazed designs will mean the path to market in regions such as these will now be much smoother.

The Company also expects that the single glazed version of the product will be well suited to transport applications including automotive where many new electric and other vehicle designs integrate a dynamically tintable panoramic glass roof into their design. The Company is confident that the single glazed design can be integrated with these types of products eliminating the need for power draw from an electric car's batteries.

The double-glazed design is also perfect for the retrofit market including for the very large market for building upgrades to meet new and revised building codes necessary to meet 'Net Zero' in places like New York City and Chicago, and also Europe, where the company has been focusing its marketing efforts over the last 12 months. Many older buildings in such places have heritage requirements and do not permit significant changes to the exterior – the ability to replace and upgrade the existing glazing to power producing energy efficient glazing without materially changing the building appearance represents a significant opportunity for the Company to cater to all retrofit projects where single, double or triple glazing might be specified.

Whilst these designs are still at the trial and testing stages the Company is confident that a commercial ready product could be available within the next 12 months subject to certification (including product certification testing to add this new design to ClearVue's current product certifications for IEC and UL 61730) and any production scaling issues.

As previously announced in relation to its updated 40 watts per square metre (peak) triple-glazed design, the new single and double-glazed designs utilize the core elements of the current ClearVue technology platform including its nano and micro photonic interlayer.



New double-glazed IGU prototype design (left). Looking through the new ClearVue double-glazed IGU design (right).

Power generated from the single-glazed design is rated at around 30w per sqm (peak). The power rating for the single-glazed design has been tested and determined at Standard Test Conditions (or STC) and is the result of research and development work carried out to improve optics and enhance application of the PV cell technology into the standard ClearVue IGU designs.

The double-glazed IGU panels are expected to generate slightly more power than the single-glazed design but full testing is yet to be completed. The double-glazed design also benefits from a significantly reduced form factor with a thickness of around 24mm. Additionally the double-glazed format benefits from the energy efficiency savings associated with double glazing and the low-e coatings used, and uses an inert noble gas between the glazing layers to bring the insulating performance closer to that of the current triple glazed design.

As previously announced, the improved design used in each of the single-glazed, double-glazed IGU and updated triple-glazed IGU formats improves upon the end-product aesthetics with no decrease in the transparent aperture area of the ClearVue PV IGU products and with no expected additional cost per square metre in the manufacture of the commercial finished end-product.

The single and double-glazed designs also benefit from the same optical efficiency improvements announced in relation to the triple glazed design. Specifically, ClearVue's luminescent optical interlayer element and the receiver PV cells and the monocrystalline photovoltaic cell application methods used and form-factor improvements previously announced for the updated triple-glazed design have followed into the single and double-glazed designs.

Development of the new single and double-glazed designs has been completed by ClearVue in conjunction with specialist solar engineering company D2 Solar in San Jose, California (www.d2solar.com), with all testing to date carried out in California.

Chairman's Comments

Commenting on the new single and double-glazed designs, Executive Chairman Mr Victor Rosenberg has said:

"The ClearVue team in conjunction with D2 solar have worked hard over the last approximately 18 months to develop the new triple glazed design and have extended that work to produce these new single-glazed and double-glazed designs.

The addition of single-glazed and double-glazed product designs to the ClearVue product suite is a major leap forward for the Company with the single and double glazing perfectly suited to many retrofit applications including in our key sales territories of the US and Europe, is well suited to automotive applications and is applicable for use in countries where multi-glazing is yet to make an impact.

In addition to these opportunities, ClearVue is also confident that the new double-glazed design will also offer benefits for the greenhouse market.

The ClearVue board and management are very happy with where the company is now both in terms of its technology and product development path but also its current positioning to take full advantage of the enormous global green transformation that is emerging to respond to the climate crisis. The addition of a single-glazed and double-glazed product to our product suite further solidifies this position.

We are looking forward to keeping the market updated on the company's various activities in the coming weeks and months."

Authorised by the Board of ClearVue Technologies Limited.

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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 compliment 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 (amongst others).

ClearVue has worked closely with leading experts from the Electron Science Research Institute, Edith Cowan University (ECU) in Perth, Western Australia to develop the technology.

To learn more please visit: www.clearvuepv.com

Forward Looking Statements

Statements contained in this release, particularly those regarding possible or assumed future performance, revenue, costs, dividends, production levels or rates, prices or potential growth of ClearVue Technologies Limited, are, or may be, forward looking statements. Such statements relate to future events and expectations and, as such, involve known and unknown risks and uncertainties. Actual results and developments may differ materially from those expressed or implied by these forward-looking statements depending on a variety of factors.