

ASX Release | ClearVue Technologies Limited (ASX: CPV)

ClearVue to form Joint Venture with eLstar Dynamics

Highlights

- ClearVue signs Term Sheet to establish new joint venture with eLstar Dynamics Holdings B.V. in the Netherlands
- Term Sheet follows Collaboration Agreement signed April 2020
- Joint Venture to work on combining both the ClearVue PV technology with eLstar's electrophoretic dynamic glazing technology to create market leading, self-powered autonomous smart windows capable of integrated energy production and lighting control

26 May 2021: Smart building materials company ClearVue Technologies Limited (ASX:CPV) (**ClearVue** or the **Company**) is pleased to announce that it has signed a Terms Sheet with eLstar Dynamics Holdings B.V in the Netherlands (**eLstar**) to form a Joint Venture to develop and commercialise a product suite that combines the technologies of both companies.

The signing of the Term Sheet follows the Company's [ASX Announcement of 14 April 2020](#) where ClearVue announced it had signed a Collaboration Agreement with eLstar Dynamics B.V. in the Netherlands.

The Term Sheet for the proposed Joint Venture seeks to expand upon the intent of the Collaboration Agreement and sets out the framework for the parties to work together more closely including for the establishment of a new joint venture entity to be based in the Netherlands where both Parties are to work on developing new world-leading 'smart self-powered and autonomous dynamically switchable/tuneable light control integrated glazing panels or units' (**Combined Products**) – a product that combines the benefits of the ClearVue PV solar glazing technology with that of eLstar's electrophoretic dynamic glazing technology.

As previously announced, eLstar is a world leader in the development of a groundbreaking dynamic/switchable glazing technology based up on electrophoresis that combines electrophoretic responsive inks, transparent electrophoretic interlayer substrates, and proprietary control software and hardware to offer unprecedented contrast ratio's and dynamic range, fast switching, dimmability and low-power demands compared against other switchable glazing solutions currently on the market.

The Combined Products would create windows that are at the same time highly energy-efficient, generate power, offer maximum comfort and control of lighting levels, can be automatically controlled or can integrate with smart control and IoT building control and management systems - all without the necessity for expensive and difficult to integrate wiring needing to be connected to the windows to operate them.

The previously announced Collaboration Agreement laid out the terms for a collaboration for the promotion, distribution and joint development of ClearVue's integrated glazing unit (IGU) and smart solar window solutions combined with eLstar's smart electrophoretic dynamic switchable glazing solutions anticipating the formation of a joint venture or other arrangement.

The first steps under the Collaboration Agreement were for the Parties to work together to develop a proof-of-concept demonstration and trial. Whilst a *full* proof-of-concept was not possible due to the impacts of COVID-19, a trial to combine the two technologies (per the Company's update in its [31 July 2020 Quarterly Report](#)) successfully confirmed the viability of the ClearVue PV solar glazing solution as a suitable power source to power and operate eLstar's electrophoretic dynamic glazing solution including for switching and dimming the glass and for powering and maintaining the state change in eLstar's electrophoretic layer.

The Term Sheet for the establishment of the Joint Venture provides, amongst other things, that:

- A new joint venture entity is to be established in the Netherlands on a 50/50 basis;
- Each party will license its technology and IP to the joint venture entity exclusively in respect of developing and commercializing the Combined Products (only, with each party retaining the rights to independently develop and promote their own respective products that are not combined products or with other collaborators (limited));
- Following signing of the Term Sheet, the Parties are to work together on formal documents including a Joint Venture Management Agreement, Shareholders Agreement, formal IP Licence Agreements, a joint Business Plan and other supporting documents.

Commenting on the Collaboration Agreement, Executive Chairman Victor Rosenberg has said:

"ClearVue is very pleased to be working with eLstar Dynamics in what both companies believe will create a game changing solution and new product category - windows and glazing that both generates power and then uses part of that power to operate eLstar's autonomously tintable glazing layer to control light levels into a building or vehicle - all at the same removing the need for curtains, blinds and other window treatments.

The self-powered aspect of ClearVue's PV glazing eliminating the need for expensive wiring and the side trades typically required to install large building-scale electrochromic and other dynamic glazing installations offered by the leading dynamic glazing suppliers today.

In addition to the new construction market, a focus for ClearVue is on the retro-fit market for cities such as New York and Chicago where large numbers of buildings need to be upgraded to meet national and local climate targets. Many of these buildings are looking at these sorts of dynamic glazing solutions as a way to control heat load and light coming into buildings – the issue then becomes how to get power to the window to operate these solutions. A combined ClearVue / eLstar product would combine the PV, electrophoretic dynamic glazing, battery and system all within the window to create a completely autonomous and self-contained solution making retro-fits as simple as replacing any existing window.

ClearVue also recently announced the development of its single and double glazing product designs. Whilst full development work and testing is required, the Company is confident that the single glazed version of the product will also be a great complement to the eLstar solution for use in the automotive applications that they are targeting.

We look forward to updating the market on the progress of the establishment of the joint venture in the near term and the progress of this significant opportunity for both companies.”

Commenting on the Collaboration Agreement, Chief Executive Officer of eLstar Dynamics BV, Mr Anthony Slack has said:

“As Victor rightly says, the combination of ClearVue and eLstar technologies to create self-powered, autonomous windows will be game changing. Against the backdrop of the fight against climate change, with every major economy gathering its forces to take on this unprecedented challenge, what better way for both companies to apply their technologies.

The idea that we can combine technologies with such enormous long-term potential, to address the ecological efficiency of both existing and future building stock is, to say the least, compelling.

With the combination our two highly complementary technologies, and the clarity of vision that both companies have to addressing this challenge we believe the combination of our two technologies together could well advance the environmental contribution of a wide range of applications by years.

These applications include the opportunity to upgrade a massive stock of existing buildings globally to increase their energy efficiency, by offering climate effective solutions for new construction projects, as well as offering solutions in other future application areas.

Making such a move at this stage puts both companies in a position to benefit enormously from this extraordinary opportunity.

The greatest chemistry is always created between two parts that are compellingly attracted. That’s how we feel about the combination of our two technologies.”

This announcement was approved for release 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 involving the integration of solar technology into glass and building surfaces specifically windows and building facades, to provide renewable energy. ClearVue has developed advanced glass technology that aims to preserve glass transparency to maintain building aesthetics whilst producing cost efficiencies by generating electricity. ClearVue’s innovative technology has applications in many industries including agriculture, building and construction.

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 spectral selective coating on the rear external surface of the IGU.

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

About eLstar Dynamics B.V.



eLstar Dynamics B.V., a subsidiary of eLstar Dynamics Holding B.V. (**eLstar**), is a Dutch technology company which is developing technology for the next generation of switchable glazing for transport and energy efficient architecture. eLstar is developing its technology based upon electrophoreses that can help maintain the interior climate whilst preserving views with no further need for blinding systems.

To learn more please visit: <https://elstar-dynamics.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.

ANNEXURE

Summary of Key Terms of the Term Sheet

The Term Sheet is made between ClearVue Technologies Limited ACN 071 397 487 (**ClearVue**) and eLstar Dynamics Holding BV registered with the Netherlands Trade Register with number 74790382 (**eLstar**).

The Term Sheet sets out a number of rights and obligations on both parties including:

- that within the first 30 days of signing the Term Sheet the parties are to have created a jointly developed business plan that will become an attachment to and form part of a formal Joint Venture Management Agreement;
- that within the first 60 days following signing of the Term Sheet the Parties to have completed due diligence (if necessary) on the other Party including on intellectual property assets;
- that a new joint venture entity is to be established in the Netherlands with each party having equal shares;
- each party will license its technology and IP to the joint venture entity exclusively in respect of developing and commercialising the Combined Products (defined in the announcement) (only), with each party retaining the rights to independently develop and promote their own respective products that are not combined products or with other collaborators (limited);
- within 90 days following signing of the Term Sheet, the Parties are to work together to put into place formal documents including:
 - Joint Venture Management Agreement,
 - Shareholders Agreement and Subscription Agreement,
 - formal IP Licence Agreements,
 - a joint Business Plan;
 - template Employment Agreements compliant with Netherlands law; and
 - other supporting documents.
- the Term Sheets sets out an outline of the contents for each of the key formal agreements including for the IP Licence Agreements – the Term Sheet sets out an outline of what each Party is licensing to the joint venture and how it may be used and identifies exceptions to the same and provides an outline for the structure for ownership and licensing of newly developed IP
- during the first 180 days following signing of the Term Sheet the Parties to make their own staff available on loan to work within the joint venture;
- the Parties are to work exclusively together on the business of the joint venture during the agreed term;
- the Term Sheet provides for a wind down process in the event the intent of the joint venture cannot be achieved;
- the Term Sheet provides includes a number of standard provisions typical of this type of agreement including for confidentiality, costs, assignment etc.;
- governing law and jurisdiction is the Netherlands.