“Green” Technology

Overview Report

ClearVue Technologies Ltd
(ASX: CPV) (OTCQB: CVUEF)

Equity | Australia
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VIRIATHUS®

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Company Description:

ClearVue Technologies is commercializing a patented solar window technology that allows up to 70% of visible light to pass through (a much higher percentage than competitor products) with energy conversion efficiency as good or better than peers. The company is deploying its solar windows at reference sites across Australia, the US, Europe and Asia that are generating interest among architects, façade engineers, real estate developers and other key decision-makers. The company is initially selling its fully assembled PV windows to distributors and licensed channel partners, then plans to recruit manufacturing licensees who will purchase its technology and components. ClearVue has commenced a digital marketing campaign in 2021 and established sales targets for its licensees that, if achieved, would generate minimum sales of US$25 million per distributor over the next five years.

Overview Report Highlights:

- **ClearVue addresses a huge market opportunity.** The market for Building Integrated Photovoltaics (BIPV) is estimated to reach $4.3 billion in 2021 and has been growing 12% CAGR, fueled by rising energy costs, environmental concerns, government regulations mandating reduced carbon emissions and the housing needs of the world’s expanding population**.** Tax credits in the US, Europe and other developed countries serve as another catalyst to PV market growth by providing investors with quick paybacks on solar window investments.
- **Superior solar window technology.** Unlike competitors tinted windows, ClearVue transparent solar windows allow more visible light to pass through. Other ClearVue advantages include efficient energy conversion, better scalability (with multiple window sizes available) and ease of manufacturing.
- **Clear runway to commercialization.** ClearVue is showcasing its patented technology at various reference sites worldwide, has secured distributors in major PV markets and launched a digital marketing campaign in 2021, supported by a new website**.** The company anticipates achieving EBITDA breakeven when sales meet or exceed a run rate of 40,000 square meters of solar windows annually.

ClearVue’s management team has decades of experience leading BIPV start-ups, developing and defending proprietary technologies, raising capital and negotiating licensing agreements. The Company is well-capitalized with roughly A$3.5 million of cash on hand to fund initial marketing efforts and the 2021 business plan.

Financial Data (AUD):

Share Price:	0.80
Market Capitalization (mln):	126.10
Shares Outstanding (mln):	157.6
Float (mln):	95.1
Average Volume (90 Day approx.):	762,470
52 Week Range:	0.097 – 0.990
Exchange:	ASX

Recent Milestones:

- Completes showcase “sustainable” greenhouse at Australia’s Murdoch University in Perth. Data gathered from the site and certified by third party labs verifies power outputs in excess of 30-watt peak (wp) per square meter of window.
- Signed new distributor Tomita Technologies in Japan for greenhouses.
- Signs South American distributor AMB Brazil and secures $200,000 order.
- Announces new prototype solar window that improves energy output by 33%.
- Signs Letter of Intent with Jinmao Green Building Technology (a subsidiary of Sinochem) to install solar windows at a luxury “green” villa being constructed near the 2022 Beijing Winter Olympics village.
- Raised A$3 million through an equity private placement.

Balance Sheet (A$ mil)	Dec 2020
Cash	2.387
Assets	5.961
Shareholders’ Equity	5.172
Non-Current Liabilities	0.131
NCL to Equity Ratio	0.02%

P&L Data (A$ mil)	2019	2020
Revenues	0.023	0
Expenses	2.637	1.311
Net Loss	3.853	2.049
EPS	0.04	0.02

Cash flow: (A$ mil)	2019	2020
From Operations	2.528	2.370
Used in Investing	0.503	0.231
From Financing	0.590	2.088

Financial Metrics

ClearVue Technologies
(ASX: CPV) (OTCQB: CVUEF)

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Company Overview

ClearVue has developed a patented solar window technology that provides superior transparency and a high conversion rate of radiance to energy.

Australia's ClearVue Technologies Limited (ASX: CPV) is an emerging leader in Building Integrated Photovoltaics (BPIV), which seek to integrate solar technologies into building surfaces (glass and building façades) to generate renewable energy. ClearVue has developed a patented PV window technology that provides superior transparency and a high conversion rate of radiance to energy. The company's technology relies on an activated interlayer between the panes of glass that allows visible light to pass through while trapping UV and infrared light and converting these to longer wavelengths. These wavelengths are collected by solar PV cells along the window edge and converted into electricity.

ClearVue PV windows not only reduce heating and cooling costs by as much as 40% by blocking damaging UV and infrared light, but also collect these wavelengths to generate renewable energy. The company estimates a 3-4% conversion rate of radiance to energy. Its patented technology has large-scale applications in the construction industry helping developers and building owners achieve "Net Zero" carbon emission consumption goals. In addition, the technology has agricultural applications in sustainable greenhouses boosting growing seasons and crop yields while reducing production costs.

ClearVue has begun commercially deploying its solar windows in 2021 via a digital marketing campaign targeting architects, façade engineers, sustainability engineers and other "green energy" specialists. The company supports its product rollout across the US and Europe. The product rollout is backed by economic analysis and data generated from demonstration sites evidencing the energy output, energy cost savings and other benefits of its novel technology.

Supported by showcase sites and compelling cost/benefit analysis, ClearVue has begun the commercial rollout of its technology in 2021.

ClearVue is heightening its visibility among investors via a share listing on the US OTCQB market under the ticker symbol CVUEF. The company's shares are already traded in Australia on the ASX Exchange under the symbol CPV and in Germany on the Frankfurt Exchange under the symbol CPV and CKJ.F, respectively.

Major reasons to invest in ClearVue Technologies include the following:

Huge Building Integrated Photovoltaics (BIPV) market opportunity. The global market for BIPV technologies has been growing 12% annually and is forecast to reach US$3.4 billion in 2021, fueled by an increased focus on energy efficiency and reducing carbon emissions. ClearVue estimates its target market at 2.1 billion square meters of glass annually.

ClearVue's product has *clear* competitive advantages. ClearVue PV windows allow up to 70% of visible light to pass through, unlike competitor products that typically rely on films or tints to block UV and infrared light. In

addition to greater transparency, ClearVue windows offer highly efficient energy conversion, scalability and ease of manufacturing, all of which support a strong rollout. The company's solar windows are also priced competitively at roughly 15-30% more than standard multi-glazed windows.

A licensee who meets ClearVue's minimum sales requirements could generate $25 million of revenues over five years.

Each licensee could generate minimum $25 million in sales over five years. Initially ClearVue plans to supply its distributors with fully assembled integrated glazing units (IGUs) or finished windows, and then as demand grows transition to a licensing model, where the company licenses its technology and components to manufacturing partners, who will embed these components in standard multi-glazed windows.

ClearVue has established minimum sales requirements for manufacturing licensees and distribution licensees based on size, territory granted, extent of exclusivity (e.g., greenhouses only, high-rise only, specific applications etc.). Each license is different, but early licenses have typically included minimums for a five- year license of 1) 5,000 square meters of glass in year one; 2) 10,000 square meters in year two; 3) 20,000 square meters in year three; 4) 30,000 square meters in year four; and 5) 40,000 square meters in year five. In the company's licensing model and assuming component sales at around US $245 per square meter, each ClearVue licensee would be expected to generate at least US $25 million in sales over a five-year period. For distributors selling finished IGUs or completed windows with similar minimums, the financial model is slightly different but assumes sales at around US $406 per square meter (subject to fluctuations in global glass and material prices) such that the company could expect to generate at least US $42 million in sales before cost of sales over a 5-year period.

Compelling return on investment. A key aspect of the company's sales pitch is its carbon payback on the product and, for the US in particular. A quick payback and high returns on solar window investment. When working with architects, the company has engaged independent economic analysis from a third-party firm (Solar Skyrise - www.solarskyrise.com). Solar Skyrise has modelled a number of building projects for ClearVue in different locations around the world – each location delivers different results based on the building design, surrounding buildings, geographic location etc. One such model, shown in the company's August 2020 Investor Presentation, found that a typical high-rise commercial building owner would realize $57,000 annually in energy savings and $8,000 annually in HVAC savings by installing ClearVue windows rather than standard double or triple glazed windows. In the US, the building owner would also benefit from a $66,000 solar investment tax credit and a $10,000 annual depreciation tax shield.

Assuming a 5% cap rate, annual energy cost savings and tax benefits would increase the value of the building by approximately $2.8 million and more than offset a higher initial investment of $1.32 million in ClearVue windows.

A typical high-rise building owner could realize $65,000 annually in energy cost savings and $76,000 in investment tax credits and depreciation shields by deploying ClearVue's solar window solution.

Clear path to commercialization. ClearVue is transitioning from a technology start-up to commercial sales in 2021. In recent months, the company has begun developing its sales pipeline in Europe, Asia and the US, recruiting manufacturing partners and distributors, and completing installations at showcase sites while further developing its technology.

The company's OEM manufacturing partners in China purport to have the capability to manufacture 1.0 square meter windows at a rate of 300,000 units annually and also have the ability to produce solar PV windows over 3.0 square meters in size, or nearly twice its previous largest size. The company is building its visibility in China by partnering with Sinochem's "green building" subsidiary to build a "green" luxury villa adjacent to the Beijing 2022 Winter Olympic village.

ClearVue's initial deployment of its technology was at the Vicinty Group's (ASX: VCX) Warwick Grove Shopping Centre in Perth, where its solar windows are generating 605 Kilowatt hours of electricity annually. Other demonstration sites include the world's first solar greenhouse recently opened at Murdoch University, a greenhouse at a winery in Japan, and an energy efficient mining hut that is part of another collaboration with Murdoch University.

Seasoned management team. ClearVue Chairman Victor Rosenberg has 25 years of glass industry experience and is a serial entrepreneur globally recognized for his contributions to the glass industry. New European CEO Dieter Moor has over 17 years of BIPV industry experience and is the former co-founder and CEO of ertex solar GmbH – a leading global BIPV supplier with more than 2,000 projects delivered worldwide. European CEO Moor has a background in civil engineering and over 30 years of experience marketing BIPV systems.

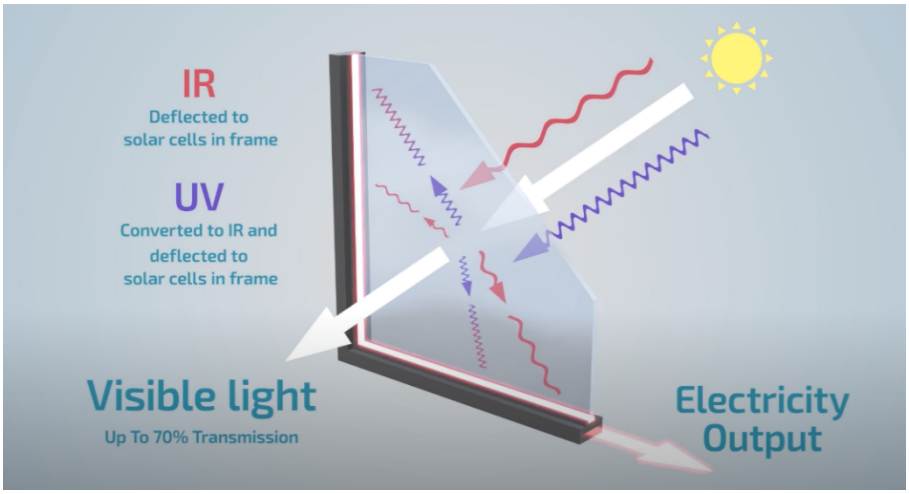
Products/Technology Overview

ClearVue technology allows up to 70% of visible light to pass through while harvesting UV and infrared wavelengths to produce renewable energy.

ClearVue's patented PV window technology enables up to 70% of visible light to pass through a pane of glass, ensuring high transparency while redirecting invisible wavelengths (infrared and UV light) away to the window perimeter where these wavelengths are harvested by solar PV cells and converted into electricity.

ClearVue windows can help building owners achieve up to 40% savings in energy costs through superior themo insulation properties. By converting unwanted radiation into electricity, ClearVue products also help building designers achieve "Net Zero Emissions," goals, a key consideration of modern building design. In addition, ClearVue windows provide an economic payback on the higher initial investment (i.e., difference in cost between ClearVue windows and standard multi-glazed windows) in less than one year via energy cost savings and tax credits and pay back the embodied carbon footprint multiple times during the installed life of the product.

The product is also competitively priced. Compared to a similar triple-glazed window without photovoltaics, the ClearVue product is priced only 15-30% higher.



ClearVue has been working on its core IP for converting a pane of glass into a luminescent solar concentrator since 2011 and has already been awarded over 80 issued patents, with more than 40 additional patents pending.

The technology is also highly energy efficient, easily scalable and suitable for mass production.

The technology is efficient, with a conversion rate of 3-4% of radiance to energy, highly scalable (windows over 3.0 square meters in size), easily integrated into window manufacturing supply chains, cost-effective and ready to deploy. In addition, ClearVue's technology can be combined with "smart" sensors to optimize lighting, temperatures and CO2 emissions since the window generates its own power source.

ClearVue embeds its technology in double or triple-glazed windows typically found in colder climates. The company's windows are UL and IEC certified, allowing sales in North America and Europe.

The company's technology is being deployed in shopping centers, commercial high-rise buildings, villas, greenhouses, mining camps and other showcase sites worldwide. A renewable greenhouse in Australia, built through a collaboration with Murdoch University, opened in April. This greenhouse and associated research were partially funded by a $1.6 million Cooperative Research Centres Projects (CRC-P) grant from the Australian federal government. Data gathered from the site and verified by third-party labs evidences energy output of 30-watt peak (wp) for every square meter of solar window.

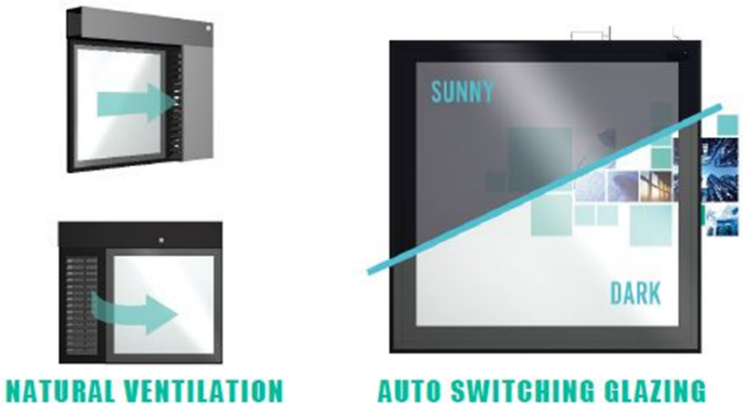
New Products

ClearVue is working with a US partner on a new prototype solar window that improves power output by 33% to 40 watts per square meter. This product could be commercially available as early as next year.

Another development project underway focuses on smaller, lighter solar windows with automotive applications such as moonroofs in new vehicle designs.

ClearVue's SmartVuePV product application concepts

In addition, the company is collaborating with global engineering group Arup (www.arup.com) on the development of self-powered, smart façade windows using 100% renewable energy from the ClearVuePV solar window product and incorporating intelligent automated operation. These windows can automatically adjust blinds, tinting and fans to achieve maximum heating and cooling efficiency. Embedded dynamic glazing technology (electrochromic/PDLC/SPD/electrophoretic) automatically adjusts the window tint and WiFi enabled environmental sensors control light, temperature and CO2 emissions. These smart façade windows are also commercially available and ClearVue believes these higher-margin product lines could eventually grow to represent a significant percentage of its revenues.



ClearVue's SmartVuePV product application concepts

Business Strategy

ClearVue is targeting markets in the US, Europe, Asia and Australia. The technology is also highly energy efficient, easily scalable and suitable for mass production.

ClearVue has commenced the commercial rollout of its technology, initially targeting markets in the US, Australia, northern Europe and China. Sales efforts in China will be through joint venture entities. These markets were targeted because of their high utility prices, the availability of tax credits and incentives, temperature swings that make double and triple-glazed windows common, and the overall size of each market. Manufacturing supply chains have been established in the US, Europe, China and Taiwan to serve customers.

The types of structures ClearVue is targeting include commercial high-rise buildings, villas, greenhouses, and other crop-producing structures. ClearVue is pursuing sales opportunities in both retrofit and new construction.

The company launched a digital marketing campaign, supported by its new marketing website, in early 2021 The new website was developed for ClearVue by Firefly 360, a leading creative and digital agency, which is also working with the company on its marketing campaign. The types of customers being targeted include architects, façade and sustainability engineers, project developers, property fund managers, greenhouse developers and other key decision-makers.

The technology has applications in retrofit and new construction in high-rise buildings, villas, green houses and other structures.

ClearVue plans to generate sales direct, through distributors and licensed channel partners and through technology licensing agreements with manufacturing partners. Showcase deployments and feasibility studies are helping to generate a sales pipeline by highlighting the cost benefits and quick return on investment from ClearVue's technology.

ClearVue's SmartVuePV bus shelter application concept

ClearVue is establishing three international offices that will provide in-market support to its licensed manufacturers and distributors.

The company's current team is handling direct sales leads. A new European CEO, Dieter Moor, joined ClearVue on 1 May to lead sales efforts in the EU market. The company also has a subsidiary in Singapore working with contractors and a partner (CSME Power Systems) to build a sales pipeline in Southeast Asia and India. In the US, the company has established a US

subsidiary (in Delaware), is planning a sales office (likely San Francisco) and is working with consultants in New York, Seattle, Los Angeles and other major cities to generate sales leads. A full-time consultant based in California is assisting with next-generation product development as well as marketing and sales. In Europe, ClearVue is establishing a subsidiary in the Netherlands that will become its EU marketing hub. These three international offices will ultimately provide in-market support for ClearVue's licensed manufacturers and distributors, each of which will have their own sales support teams and channels.

Distributors and Manufacturing Partners

ClearVue has signed Full Treasure Corp. Ltd in Hong Kong, AMB Brasil in Brazil, Tomita Technologies in Japan and Insulsteel in the USA as distributors. In Singapore, the company's wholly owned subsidiary is collaborating with power generation systems designer CSME Power Systems on sales and marketing opportunities.

ClearVue has signed agreements with two OEM partners in China to fabricate its window components and discussions are underway with Seiko Wall to become another OEM manufacturer partner for ClearVue and a distributor serving Singapore and Malaysia.

Initially the company plans to supply fully assembled solar windows to its distributors and channel partners. As demand builds, manufacturing licensees will be appointed, and the company will transition to a new model selling technology and product components to licensees. The components consist of the company's patented proprietary nano and micro particle doped activated interlayer and its mini solar photovoltaic strips that are used inside each window unit. Licensees will be supported by an educational campaign being developed by the company that will train their construction crews how to install its solar windows.

The company sets minimum sales requirements for licensees that typically rise from 5,000 square meters of glass in year one to 10,000 square meters in year two, 20,000 square meters in year three, 30,000 square meters in year four and 40,000 square meters in year five.

Showcase Deployments

A showcase deployment of ClearVue solar windows at the Warwick Grove Shopping Center in Perth has already generated over 460 kilowatts of renewable energy.

ClearVue's initial showcase deployment was in its native Australia. In 2019 the company installed PV windows in the atrium entrance of the Warwick Grove Shopping Center located in Perth. Since then, the 18 ClearVue windows installed in the atrium have been generating approximately 605 kwh of electricity annually.

ClearVue's solar glass windows installed at Warwick Grove Shopping Centre, Perth, Western Australia

The company recently opened its showcase sustainable greenhouse in Perth, Australia (the Murdoch University project) and is also developing a sustainable greenhouse at the Fujisan Winery near Mount Fuji in Japan. The Murdoch greenhouse has already begun generating power over and above what was predicted in modelling. Data from this site is being verified by Murdoch University, Edith Cowan University and the company pursuant to its obligations under its federal government grant. Initial data evidences energy output of more than 30 wp per meter of glass and anticipated improvements in plant growth and crop yields.

ClearVue's world-first clear solar glass greenhouse at Murdoch University, Western Australia

ClearVue windows have been installed in a recently completed, prototype four-person mining hut built in collaboration with Murdoch University. ClearVue solar windows could help major mining companies such as BHP and Rio Tinto

achieve targets of "net zero" carbon emissions across their operations by 2050. The test site will explore not only how to increase the energy efficiency of the mining huts, but also improve thermal comfort for the hut's occupants, typically fly-in mining workers. In addition to improving the hut's insulation, ClearVue solar windows will supply power to USB mobile phone chargers, LED lighting and sensors. Data collected from the prototype will be used to develop a virtual building model able to simulate a mine-site camp.

Also in Australia, the company has a Memorandum of Understanding with hemp-based sustainable building materials manufacturer Mirreco to install ClearVue PV windows in that company's showcase "green" micro-house display lab in the Western Australia city of East Fremantle.

Mirreco™ Lumecast ® Display Lab concept design, East Fremantle, Western Australia

In China, ClearVue has signed a Letter of Intent with Jinmao Green Building Technology, a subsidiary of Sinochem, to construct a luxury "green" villa in Heibei Province adjacent to the site of the Beijing 2022 Winter Olympics Village. ClearVue solar windows have been fitted into the villa.

ClearVue recently secured its first South American order from its distributor partner AMB Brasil. The initial order was for 500 square meters of glass and is valued at approximately US$200,000, making this ClearVue's largest order to-date. The PV glass will be used in two AMB Brasil commercial building projects in Sao Paulo, Brazil. The first building installation was originally scheduled for June 2021 but has been delayed due to the COVID pandemic. The second order is a retrofit project at AMB Brasil's corporate offices. Both projects will serve as reference sites to build a South American sales pipeline. AMB Brasil is also in discussions with Volvo regarding the use of electricity generated from the ClearVue solar windows at an AMB Brasil project to power an electric vehicle recharging station at the base of a building.

In the US, ClearVue has entered into a Memorandum of Understanding with Virtuality Venues to install its solar windows at a project that entails 12 hotels over a 568-acre site. In Europe, ClearVue has signed a collaboration agreement with Dutch firm eLstar Dynamics for trials of its windows to power eLstar Dynamics' electrophoretically tintable glazing solution and explore the development of joint global sales opportunities.

Market Overview

According to the International Energy Agency (IEA), buildings account for nearly one-third of global energy consumption and 40% of world CO2 emissions. Scientists and engineers are addressing these environmental challenges by developing new technologies such as BIPV (Building Integrated Photovoltaic) that can improve building energy efficiency.

The BIPV market is currently valued at $4.3 billion worldwide and has been growing at a 12.1% CAGR.

Solar energy solutions such as rooftop solar panels have existed for years, but their usefulness is limited in heating and cooling large structures because of the panel sizes and weights that would be required. Rooftop real estate on high rise buildings is also extremely limited compared to the large areas of glass facades on the sides of the building. More recently, photovoltaic (PV) windows have emerged as a more practical and energy efficient alterative to rooftop panels.

BCC research estimates a total market for BIPV technologies projected to reach US$3.4 billion in 2021. The BIPV market has been growing at a 12.1% CAGR over the last five years and industry experts estimate 5.5 billion square meters of PV glass will be needed annually in the future to upgrade existing buildings to today's stricter energy emission standards. ClearVue targets a subset of the BIPV market that represents over 2.1 billion square meters of PV glass annually.

The most mature geographic markets for solar technologies are the US and Europe. Factors such as electricity costs, government regulations, environmental policy and green incentives are all influencing the rate at which individual countries embrace BIPV technologies.

In the US market, solar investment tax credits, currently calculated at 26% of the cost of installation, are a major incentive for solar window installations. Clean energy tax credits vary on a country-by-country basis in Europe.

To address the housing needs of the world's expanding population, 2.5 trillion square feet of new construction will be required. This is roughly equivalent to the current global building stock.

ClearVue estimates that a single, low-rise 10 story building could deploy more than 3,150 square meters of PV glass for a BIPV-focused retrofit or new construction. A large building such as the Freedom Tower in New York City would require over 93,000 square meters of PV glass.

The new construction market is as large or even larger than the retrofit market for solar windows. Experts estimate new construction of 2.5 trillion square feet of building over the next 40 years will be needed for the world's steadily growing population. This amount of new construction is roughly equivalent to the current global building stock.

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Management & Board of Directors

ClearVue is led by serial entrepreneur and glass industry expert Victor Rosenberg and recently appointed Dieter Moor, the former CEO of a leading BIPV global supplier, as the company's European CEO. Moor joined the company on 1 May. ClearVue also has plans to appoint a US CEO over the next six to twelve months, who will oversee the US strategy and rollout. The backgrounds of ClearVue current directors and senior executives are summarized below.

Victor Rosenberg
Executive Chairman

Victor Rosenberg, the founder and CEO of ClearVue Technologies, travels the world showcasing the company's energy-generating glass that he believes will contribute to a sustainable energy future. Significantly, this glass can be retrofitted into existing buildings to power the "smart cities" of the future. "Smart" windows will effectively learn and deliver optimal comfort for building occupants, while at the same time powering their own intelligence.

A former pharmacist, Mr. Rosenberg has won an International Innovation Award in Germany for developments in food processing technologies, and now, focused on achieving energy security through sustainable sources, has turned his vision to glass. He believes energy generation and protecting our environment are two of the world's most important challenges and is transforming his vision of creating a product that addresses both concerns into a reality.

Stuart Carmichael
Non-Executive Director

Mr. Carmichael is a Chartered Accountant who brings over 20 years of accounting and corporate finance experience to ClearVue's board. He is a Principal and Director of Ventnor Capital Pty Ltd and Ventnor Securities Pty and also a Non-Executive Director to Swick Mining Services (ASX: SWK). In addition, Mr. Carmichael has served as Chairman of Schrole Limited (ASX: SCL) and Serpentine Limited (ASX: S3R) and Non-Executive Director of De.mem Limited (ASX: DEM) and Osteopore Limited (ASX: OSX)

Roger Steinepreis
Non-Executive Director

Mr. Steinepreis has more than 30 years of corporate law experience and has been the legal adviser to numerous public companies on a wide range of corporate-related matters. He also serves as Non-Executive Director of Petronor E&P Limited (OB: PNOR) and Latitude Consolidated Limited (ASX: LCD), and Non-Executive Chairman of Apollo Consolidated Limited (ASX: AOP).

Dieter Moor
European Chief Executive Officer

Mr. Moor, who began his tenure as European CEO on 1 May, has over 17 years of BIPV industry experience and is the former co-founder and CEO of ertex solar GmbH, a leading global BIPV supplier with more than 2,000 projects delivered worldwide. His training is in civil engineering, and he gained extensive sales experience marketing BIPV systems for over 30 years.

Jamie Lyford
Chief Operating Officer/General Counsel

Mr. Lyford has more than 25 years of IP law and technology commercialization experience as an IP licensing and commercial lawyer. He previously held legal

roles at leading Australian and specialist overseas law firms as well as in-house with BHP and ATOS and oversaw operation of the Western Australian Government's Innovation Centre incubator. Mr. Lyford is a former director of ClearVue.

Geoff Edwards
Chief Financial Officer

Mr. Edwards has over 30 years of experience in CFO, senior financial and commercial roles. He is a Certified Public Accountant who has held CFO positions with other ASX-listed companies. His areas of expertise include business start-ups, mergers and acquisitions, equity and debt financings, turnarounds, building financial systems and processes, and strategic planning and implementation.

Steve Coonen
Vice President Development – Products, Technology & Sales (North America)

Mr. Coonen has 38 years of experience in photovoltaics, including 26 years focused specifically on BIPV technologies. He is a photovoltaic consulting engineer, specializing in BIPV, and lives in the US. Mr. Coonen has overseen the installation of more than 3,000 BIPV systems in the US, including the California Academy of Science in San Francisco, the Whitehall Ferry Terminal in Manhattan and 1,500 new houses at various locations for Pulte Homes.

Dr. Mikhail Vasiliev
Lead Scientist

Dr. Vasiliev has over 20 years of work in physics and an extensive science and technology background, ranging from the development of fiber-optic sensors and laser interferometers to the design of solid-state lasers. He has served as Senior Research Fellow at Edith Cowan University (ECU), where he specialized in nanotechnology and materials science. Dr. Vasiliev played a crucial role in designing and developing ClearVue's core components and technologies during his time at ECU and has since joined ClearVue to further that work directly. He holds a PhD (Physics) from Victoria University in Melbourne and has co-authored more than 50 high-impact research articles published in international peer-reviewed journals.

Tao Zhang
Senior Technical Officer

Mr. Zhang has more than 16 years of professional engineering experience and is a Chartered Professional Engineer in both Australia and China. He serves as Project Manager and Senior Technical Officer for ClearVue, leading the company's technical team, product certification programs and R&D. He also provides sales support and manages ClearVue's global OEM manufacturer and supplier relationships.

Chris Cole
Mechatronic Engineer

Mr. Cole is a recent graduate of Sydney University where he obtained a degree in Mechatronic Engineering (first class honors). He has experience installing sensor equipment on solar and wind farms and has been involved in the design, development, construction, programming and testing of ClearVue's Smart Façade window prototypes. He also brings his expertise in integrated software, hardware and AI systems to the ClearVue development team.

Competition

ClearVue's technology is protected by more than 85 issued patents and 40 pending patents.

While there are numerous other public and private companies developing solar window technologies, the competitive advantages of ClearVue's product are a clear differentiating factor. For example, ClearVue solar windows offer up to 70% transparency, a much greater transparency than competitor products. This is due to the fact that peer solar windows typically rely on tints and films to generate power at the glass. Window tints can reduce undesirable wavelengths but make the view cloudy and/or darkened or demonstrate other optical artefacts in the glass necessary to generate electricity on the glass. ClearVue's solution relies on driving the undesirable wavelengths of IR and UV (down converted by nano particles in its proprietary interlayer to IR) to the edge of the glass for power conversion through photovoltaic cells located at the glass perimeter.

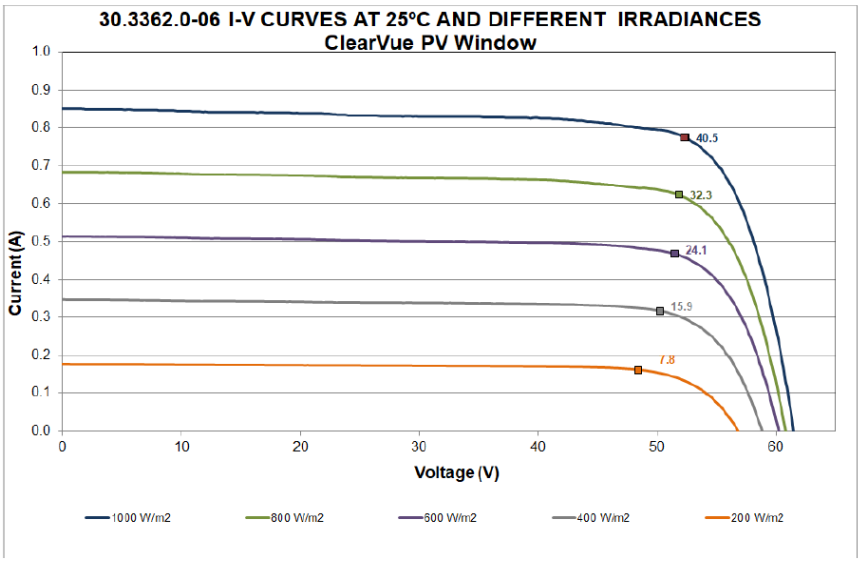
Another factor differentiating ClearVue's windows is a greater range of sizes. ClearVue technology can be embedded into any standard sized double or triple-glazed windows. Competitor products tend to offer only a few sizes. In addition, ClearVue windows are easy to manufacture and highly scalable. By minimizing manufacturing costs and reliance on high capex equipment, ClearVue makes its solar windows more affordable, easier and more attractive for licensee engagement.

Published Test Data

ClearVue is the only high transparency solar window manufacturer with published test data provided by third-party labs.

Another important factor differentiating ClearVue from competitors is its validated test data. ClearVue is the only high transparency solar window manufacturer that has published test data verifying its energy efficiency claims.

Solar window performance is usually provided by third-party testing laboratories, which subject the window to "Standard Test Conditions" (STC) for measuring efficiency.



ClearVue has published its test data, measured by two reputable testing laboratories (CENER in Spain and TUV-SUD in China), and made the test results available on its website at https://www.clearvuepv.com/frequently-asked-questions/

Field tests of factory assembled ClearVue windows have verified power output of 33 watts per square meter of glass and energy conversion efficiency of 3.3%.

Importantly, this high efficiency was validated in larger-sized windows and at window transparency near 70%. This transparency also means that 70% of the incoming light isn't converted – this is by design so as to achieve maximum daylighting into buildings. It is the other 30% of all available light that is being converted, and that puts ClearVue efficiency into a clearer perspective.

30.3362.0-006 TEST RESULTS ClearVue PV Window								
TEST NUMBER	T	IRRAD.	P_{MAX}	I_{SC}	V_{OC}	I_{MP}	V_{MP}	FF
30.3362.0-006-MQT06.1FCEM-R001	25 ºC	1000 W/m²	40.5W ± 2.4%	0.85A ± 2.2%	61.5V ± 0.5%	0.77A ± 2.5%	52.4V ± 0.8%	77.5% ± 0.6%
30.3362.0-006-MQT06.1FCEM-R003	25 ºC	800 W/m²	32.3W ± 2.2%	0.68A ± 2.1%	60.8V ± 0.5%	0.62A ± 2.3%	51.8V ± 0.8%	77.7% ± 0.6%
30.3362.0-006-MQT06.1FCEM-R004	25 ºC	600 W/m²	24.1W ± 2.3%	0.51A ± 2.2%	60.2V ± 0.6%	0.47A ± 2.4%	51.5V ± 0.9%	77.8% ± 0.6%
30.3362.0-006-MQT06.1FCEM-R005	25 ºC	400 W/m²	15.9W ± 3.2%	0.35A ± 3.1%	58.8V ± 0.5%	0.32A ± 3.4%	50.2V ± 0.8%	78.0% ± 0.6%
30.3362.0-006-MQT07BIRD-R001	25 ºC	200 W/m²	7.8W ± 3.7%	0.18A ± 3.7%	56.8V ± 0.5%	0.16A ± 4.0%	48.4V ± 0.9%	77.9% ± 0.6%

Other solar window companies provide windows with much less transparency (typically 30-40%) at energy conversion efficiency rates also near 3%. In addition, some solar window manufacturers have claimed high energy conversion efficiency rates but have failed to validate their claims with published third-party lab testing data.

IP Portfolio

Most of ClearVue's competitors rely on tints or film technologies that reduce transparency and are more expensive to manufacture.

ClearVue's technology is protected by over 85 issued patents and another 40 pending patents. The company has already secured UL and IEC certifications, allowing its solar windows to be sold in Europe and the US. ClearVue has begun the process of commercializing its technology. This contrasts with most competitors at an earlier development stage.

Privately held competitors in the solar window industry include Ubiquitous Energy and UbiqQD in the US and European firms Onyx Solar (Spain), Physee (Netherlands) and Glass to Power (Italy). Publicly traded Italy-based Eni Spa (Symbol: E) is another European competitor. Onyx Solar is arguably the leader in terms of solar glazing installations globally.

At present, ClearVue potentially competes or will compete with Onyx Solar and publicly traded Solar Windows.

Solar Windows Technologies (OTCPK: WNDW) has developed a solar window technology that relies on an electricity-generating window coating. This coating is applied to glass and plastic surfaces to convert ordinary surfaces to photovoltaic devices. Unlike ClearVue, however, Solar Windows is not yet in production and their products are not UL certified.

The company is in the pre-revenue stage and during the six months ended February 2021, generated a $4.7 million net loss. Solar Windows Technologies is well-capitalized, however, with cash and cash equivalents totaling $8.5 million, sufficient to fund 2021 operation at the current burn rate. The company's shares have traded as high as USD $37 per share and are currently trading near $12 per share.

Milestones

Key 2020 milestones achieved by ClearVue include the following:

Development Agreement with eLstar Dynamics BV

ClearVue entered into a development agreement with Netherland-based eLstar Dynamics on a demonstration project that combines its solar windows with eLStar's lighting controls. The trial was successful, and the companies are looking to expand the relationship.

Distribution agreement with Insulsteel Building Sciences US

During 2020, ClearVue recruited distributor partners in the US and South America and signed development agreements with partners in Europe and Asia.

The company signed an agreement with US firm Insulsteel Building Sciences to serve as a manufacturer and supply ClearVue windows for Insulsteel's own use in the US in conjunction with its own advanced energy efficient steel framed building system. Insulsteel intends to build a plant to manufacture and supply ClearVue windows for use in its own construction projects.

Development project with Jinmao Green Building Technology

ClearVue signed a letter of intent with Jinmao Green Building Technology, a subsidiary of Chinese chemical giant Sinochem, to construct a luxury "green" villa near the 2022 Beijing Winter Olympics village. The parties are negotiating a distribution agreement.

Agreement with Virtuality Venues

ClearVue entered into a Memorandum of Understanding with US-based hospitality developer Virtuality Venues for the installation of its solar windows at parts of a large theme park project, which includes 12 hotels spread over a 568-acre site.

Agreement with AMB Brasil

ClearVue secured its first order from Japan and its largest order to-date from its new South American distributor.

The company signed an agreement with AMB Brasil, making that company its distributor for Sao Paulo in Brazil. In addition, ClearVue secured its largest order to-date from AMB Brasil – a $200,000 order for solar windows that will be installed in two commercial high-rise buildings in Sao Paulo, Brazil (currently delayed due to COVID).

First order from Japan

ClearVue secured its first order from a Japanese customer, Fujisan Winery near Mount Fuji in Japan, for the installation of solar windows in a sustainable

greenhouse being constructed at the winery. ClearVue has already delivered its solar windows to the site.

The company has set these major milestones to be accomplished in 2021:

Greenhouse project at Murdoch University

ClearVue is generating data documenting the energy cost savings achieved at the Murdoch greenhouse project and plans to release this data later this year.

The company's showcase sustainable greenhouse in Perth, Australia, built in collaboration with Murdoch University, recently opened. Trial data gathered from the site and verified by third parties is evidencing (as expected) energy output exceeding 30 watts peak (wp) per square meter of installed ClearVue solar window.

Complete "green" luxury villa and sustainable greenhouse in Asia.

ClearVue solar windows have been installed at a luxury sustainable villa under construction near the Beijing 2022 Winter Olympics village and windows have been delivered to a sustainable greenhouse under construction in Japan at the Fujisan Winery. Both reference sites should help build Asian interest in ClearVue's technology.

Mirreco mini-house project.

The company has an agreement with Mirreco to supply solar windows for a showcase "green" mini home that Mirreco is building in Western Australia.

Distribution agreement with Jinmao Green Building Technology

ClearVue is negotiating an agreement with the Jinmao Green Building Technology subsidiary of SinoChem to serve as its distributor in China.

Launch digital marketing campaign and website

ClearVue is negotiating with a subsidiary of Sinochem to be its distributor in the Chinese market.

In April ClearVue commenced its digital marketing campaign, supported by its new website, designed to convert showcase projects into purchase orders. Another goal of the campaign is to secure additional distribution and/or licensee partners in the US, Europe and Oceania.

Investment Risks

ClearVue must convince architects, façade engineers and other decision makers of the competitive advantages and energy cost savings of its technology.

Early stage of commercializing products

ClearVue is introducing a new solar window technology and must persuade architects, construction engineers, real estate developers and other decision-makers of the advantages and cost benefits of its technology. There is no guarantee that ClearVue can build a deep sales pipeline.

Supply chain risk

ClearVue is relying on distributors and channel partners to help commercialize its technology. The inability to recruit sufficient numbers of distributors and channel partners would adversely impact the commercial rollout of ClearVue's product. The company has set minimum sales targets for its licensees, but there is no assurance that these targets will be met.

Long lead times

There are long lead times in the building construction industry. Years can pass transitioning a building from the design stage to when windows are installed. ClearVue offsets some of the risk of long construction lead times by pursuing sales opportunities in the green housing market, with demand fueled by global food security concerns and emergent market opportunities from the medical cannabis industry. Additionally, the retrofit market for refurbishing buildings to meet new "Net Zero" requirements in major cities like New York and Chicago will be a strong driver for sales in the near to medium term.

Intellectual Property risk

While its solar window technology is protected by patents, ClearVue may need to protect its IP from third-party challenges. Such challenges may be costly and time-consuming, and the company may be at a disadvantage due to its limited capital.

ClearVue's competitive advantages are based on its patented solar window technology. There is an ongoing risk that a competitor will challenge the company's IP, introduce a similar product or develop a new technology that offers superior cost benefits. At present, ClearVue is not a party in any lawsuit, but future challenges to its patents cannot be ruled out. Defending a challenge would be costly and time-consuming and ClearVue may be at a disadvantage due to limited financial resources.

Financing risk

ClearVue had cash on hand of A$2.4 million at December 31, 2020 to fund its 2021 business initiatives, and also currently has approximately 59 million AUD $0.25 options on issue with an expiry date of June 21, 2021. Some of these options are already being converted to shares, and if all the options are converted, the company could have an additional A$10-15 million available to fund operations. Notwithstanding funds raised from option conversions, ClearVue

may need to raise additional capital to further develop its sales pipeline and progress its goals in Europe and the US. There is no guarantee that the company will be able to secure additional funding. Debt offerings create financial risk and equity offerings are dilutive. There is also risk that the company's cash burn rate may be higher than expected. Failure to obtain sufficient financing or control the cash burn rate could delay the successful commercialization of ClearVue's products.

Summary

ClearVue Technologies has begun the commercial rollout of a proprietary solar window technology that maximizes transparency, reduces the effects of unwanted UV and infrared light, and efficiently converts radiance into electricity.

ClearVue went public in 2018 and has raised net proceeds of $10 million through its initial offering and subsequent financings.

The company's technology has been deployed at reference sites across the US, Australia and Europe. An economic analysis done by a third-party research firm on a reference theoretical building of certain dimensions and location in the US estimates that a high-rise building owner for a similar building may achieve $57,000 of annual energy cost savings from installing ClearVue solar windows instead of conventional glazed windows. For the average building owner taking advantage of solar tax credits in the US, the payback on the extra investment in ClearVue solar windows may be less than one year. ClearVue windows are also affordably priced at only 15-30% more than an ordinary multi-glazed window.

The market opportunity in solar window technologies is enormous. BCC values the BIPV (Building Integrated Photovoltaic) market at US$4.3 billion in 2021 and estimates market growth that has exceeded 12% annually. Rising energy costs, demands for carbon neutral technologies, and government tax incentives on solar energy deployments will likely fuel continued double-digit growth for solar technologies. Just addressing the housing demands of an expanding world population presents huge opportunities for solar window installations. Experts estimate 2.5 trillion feet of new construction will be needed over the next 40 years to meet housing demand, which is roughly equivalent to the current global building stock.

Funding and Recent Performance

ClearVue expects to achieve EBITDA breakeven at sales of 10,000 square meters of solar windows per quarter.

ClearVue went public in 2018 via a 25 million share offering that generated proceeds of A$5 million (approximately $4 million to the company after IPO costs). A secondary offering in September 2019 raised $2 million and an August 2020 equity offering added another $2.5 million to proceeds. The company has also been funded by a $1.6 million government grant and R&D tax rebates received each year from the Australian government that typically have returned approximately A$500,000 to $600,000 per year.

ClearVue has also recently raised around A$2.4 million through the exercise of options and at present has cash on hand of approximately A$3.5 million and no debt. There are 138.4 million shares outstanding and 13 million performance shares.

During the six months ended December 31, 2020, ClearVue generated minimal revenue and a net loss of A$1.80 million, up slightly from A$1.22 million during the same six-month period one year earlier.

The company's activities during the six-month period ended in December included installing solar windows at the Murdoch University sustainable greenhouse, recruiting US-based Insulsteel Building Sciences LLC as a manufacturing partner and distributor, signing AMB Brasil as its first South American distributor and securing its largest order ever, obtaining its first order from Japan and raising net proceeds of A$3.0 million from equity offerings.

ClearVue estimates sales and marketing expenses totaling A$240,000 during the 2020/21 financial year and is budgeting sales and marketing expenses at roughly double that amount (approximately A$450,000) for the 2021/22 financial year. The increased marketing spend and the company's overseas expansion are expected to nearly double ClearVue's monthly cash burn rate from A$230,000 per month last year (excluding construction costs for the Murdoch sustainable greenhouse) to A$400,000 per month for the 2021/22 financial year.

With cash on hand of A$3.5 million, ClearVue has sufficient funding for approximately nine months of operations at the estimated 2021 cash burn rate. If further options are converted as anticipated, the company would likely be adequately funded through 2022.

ClearVue Revenue Opportunity and Time to Breakeven

ClearVue plans to market its solar windows both direct and through distributor and licensed channel partners, some of which will also be manufacturing licensees. The company has set sales targets for licensees that would imply $25 million of revenues per license over five years.

Gross margins on product sales are estimated to range around 30%. On sales of product components to licensees that manufacture the solar windows, ClearVue estimates its profit at approximately AU$80 per window.

The company anticipates achieving breakeven on an EBITDA basis, based on currently baseline pricing and budgeted marketing spend, when sales reach 10,000 square meters per quarter, or 40,000 square meters of solar windows annually.

Valuation

ClearVue is in an early commercialization stage and has not yet begun generating significant revenues, which makes valuing the business somewhat challenging. The company's closest pure play public competitor, Solar Window Technologies (WNDW), is also pre-revenue and valued at $596 million, or roughly five times the recent $100 million market value of ClearVue technologies. Over the past 12 months, the price of WNDW shares have ranged from $1.21 to $39.20 and are currently trading in the $11 to $12 range. ClearVue shares have also traded in a broad range ($0.045 to $1.00) and currently trade on the US market near $0.64.

Income Statement

For the Fiscal Period Ending	Restated 12 months Jun-30-2018	Reclassified 12 months Jun-30-2019	12 months Jun-30-2020	LTM 12 months Dec-31-2020
Currency	*AUD*	*AUD*	*AUD*	*AUD*
Revenue	-	0.023	-	-
Other Revenue	-	-	-	-
Total Revenue	**-**	**0.023**	**-**	**-**
Cost Of Goods Sold	0.763	1.247	0.736	1.169
Gross Profit	**(0.763)**	**(1.224)**	**(0.736)**	**(1.169)**
Selling General & Admin Exp.	0.791	2.203	1.958	1.836
Stock-Based Compensation	2.306	1.478	-	0.368
R & D Exp.	-	-	-	-
Depreciation & Amort.	0.062	0.096	0.167	0.162
Amort. of Goodwill and Intangibles	-	-	-	-
Other Operating Expense/(Income)	(0.263)	(1.141)	(0.814)	(0.798)
Other Operating Exp., Total	**2.896**	**2.637**	**1.311**	**1.569**
Operating Income	**(3.659)**	**(3.86)**	**(2.047)**	**(2.737)**
Interest Expense	(0.028)	(0.002)	(0.022)	(0.033)
Interest and Invest. Income	0.003	0.01	0.002	0.001
Net Interest Exp.	**(0.025)**	**0.007**	**(0.02)**	**(0.032)**
Other Non-Operating Inc. (Exp.)	(0.002)	0.0	-	0.118
EBT Excl. Unusual Items	**(3.686)**	**(3.853)**	**(2.067)**	**(2.652)**
Insurance Settlements	-	-	0.018	0.018
Other Unusual Items	-	-	-	-
EBT Incl. Unusual Items	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
Income Tax Expense	-	-	-	-
Earnings from Cont. Ops.	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
Extraord. Item & Account. Change	-	-	-	-
Net Income to Company	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
Minority Int. in Earnings	-	-	-	-
Net Income	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
NI to Common Incl Extra Items	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
NI to Common Excl. Extra Items	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
Per Share Items				
Basic EPS	(0.08)	(0.04)	(0.02)	(0.02)
Basic EPS Excl. Extra Items	(0.08)	(0.04)	(0.02)	(0.02)
Weighted Avg. Basic Shares Out.	46.826	96.975	102.53	116.826
Diluted EPS	(0.08)	(0.04)	(0.02)	(0.02)
Diluted EPS Excl. Extra Items	(0.08)	(0.04)	(0.02)	(0.02)
Weighted Avg. Diluted Shares Out.	46.826	96.975	102.53	116.826

Balance Sheet

Balance Sheet as of:	Restated Jun-30-2018	Jun-30-2019	Jun-30-2020	Dec-31-2020
Currency	*AUD*	*AUD*	*AUD*	*AUD*
ASSETS				
Cash And Equivalents	3.819	1.377	0.864	2.387
Total Cash & ST Investments	**3.819**	**1.377**	**0.864**	**2.387**
Accounts Receivable	-	0.021	-	0.018
Other Receivables	0.115	0.664	0.564	0.487
Total Receivables	**0.115**	**0.685**	**0.564**	**0.505**
Prepaid Exp.	0.004	0.029	0.126	-
Other Current Assets	-	-	-	0.15
Total Current Assets	**3.937**	**2.091**	**1.554**	**3.043**
Gross Property, Plant & Equipment	0.128	0.182	0.424	0.435
Accumulated Depreciation	(0.02)	(0.054)	(0.143)	(0.187)
Net Property, Plant & Equipment	**0.108**	**0.128**	**0.281**	**0.248**
Other Intangibles	1.493	1.877	2.457	2.614
Deferred Charges, LT	-	-	-	-
Other Long-Term Assets	-	0.055	0.057	0.057
Total Assets	**5.539**	**4.151**	**4.348**	**5.961**
LIABILITIES				
Accounts Payable	0.287	0.578	0.379	0.485
Accrued Exp.	0.002	0.081	0.123	0.132
Short-term Borrowings	-	-	0.291	-
Curr. Port. of Leases	-	-	0.042	0.042
Other Current Liabilities	0.027	0.048	0.138	-
Total Current Liabilities	**0.317**	**0.707**	**0.974**	**0.658**
Long-Term Leases	-	-	0.131	0.109
Other Non-Current Liabilities	-	0.007	0.016	0.022
Total Liabilities	**0.317**	**0.714**	**1.12**	**0.789**
Common Stock	9.993	10.681	12.521	15.365
Additional Paid In Capital	-	-	-	-
Retained Earnings	(7.614)	(11.467)	(13.516)	(15.32)
Treasury Stock	-	-	-	-
Comprehensive Inc. and Other	2.843	4.223	4.223	5.127
Total Common Equity	**5.222**	**3.437**	**3.228**	**5.172**
Total Equity	**5.222**	**3.437**	**3.228**	**5.172**
Total Liabilities and Equity	**5.539**	**4.151**	**4.348**	**5.961**

Cash Flow

For the Fiscal Period Ending	Restated 12 months Jun-30-2018	Restated 12 months Jun-30-2019	12 months Jun-30-2020	LTM 12 months Dec-31-2020
Currency	*AUD*	*AUD*	*AUD*	*AUD*
Net Income	**(3.686)**	**(3.853)**	**(2.049)**	**(2.634)**
Depreciation & Amort.	0.014	0.035	0.089	0.078
Amort. of Goodwill and Intangibles	0.048	0.061	0.078	0.084
Depreciation & Amort., Total	**0.062**	**0.096**	**0.167**	**0.162**
Asset Writedown & Restructuring Costs	-	-	-	(0.007)
Stock-Based Compensation	2.306	1.478	-	-
Other Operating Activities	-	(0.454)	(0.664)	(0.664)
Change in Acc. Receivable	(0.092)	(0.002)	0.513	0.823
Change in Acc. Payable	0.059	0.109	(0.366)	(0.669)
Change in Other Net Operating Assets	-	0.097	0.029	0.077
Cash from Ops.	**(1.35)**	**(2.528)**	**(2.37)**	**(2.911)**
Capital Expenditure	(0.122)	(0.054)	(0.026)	(0.025)
Cash Acquisitions	-	-	-	-
Divestitures	-	-	-	-
Sale (Purchase) of Intangible assets	(0.234)	(0.28)	(0.175)	(0.088)
Invest. in Marketable & Equity Securt.	-	-	-	-
Net (Inc.) Dec. in Loans Originated/Sold	-	-	-	-
Other Investing Activities	0	(0.169)	(0.031)	(0.022)
Cash from Investing	**(0.355)**	**(0.503)**	**(0.231)**	**(0.135)**
Short Term Debt Issued	-	-	0.291	-
Long-Term Debt Issued	-	-	-	-
Total Debt Issued	**-**	**-**	**0.291**	**0.291**
Short Term Debt Repaid	-	-	-	-
Long-Term Debt Repaid	-	-	(0.043)	-
Total Debt Repaid	**-**	**-**	**(0.043)**	**(0.335)**
Issuance of Common Stock	5.528	0.59	2.0	3.949
Total Dividends Paid	**-**	**-**	**-**	**-**
Special Dividend Paid	-	-	-	-
Other Financing Activities	(0.513)	-	(0.16)	(0.202)
Cash from Financing	**5.015**	**0.59**	**2.088**	**3.703**
Net Change in Cash	**3.309**	**(2.442)**	**(0.513)**	**0.657**

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