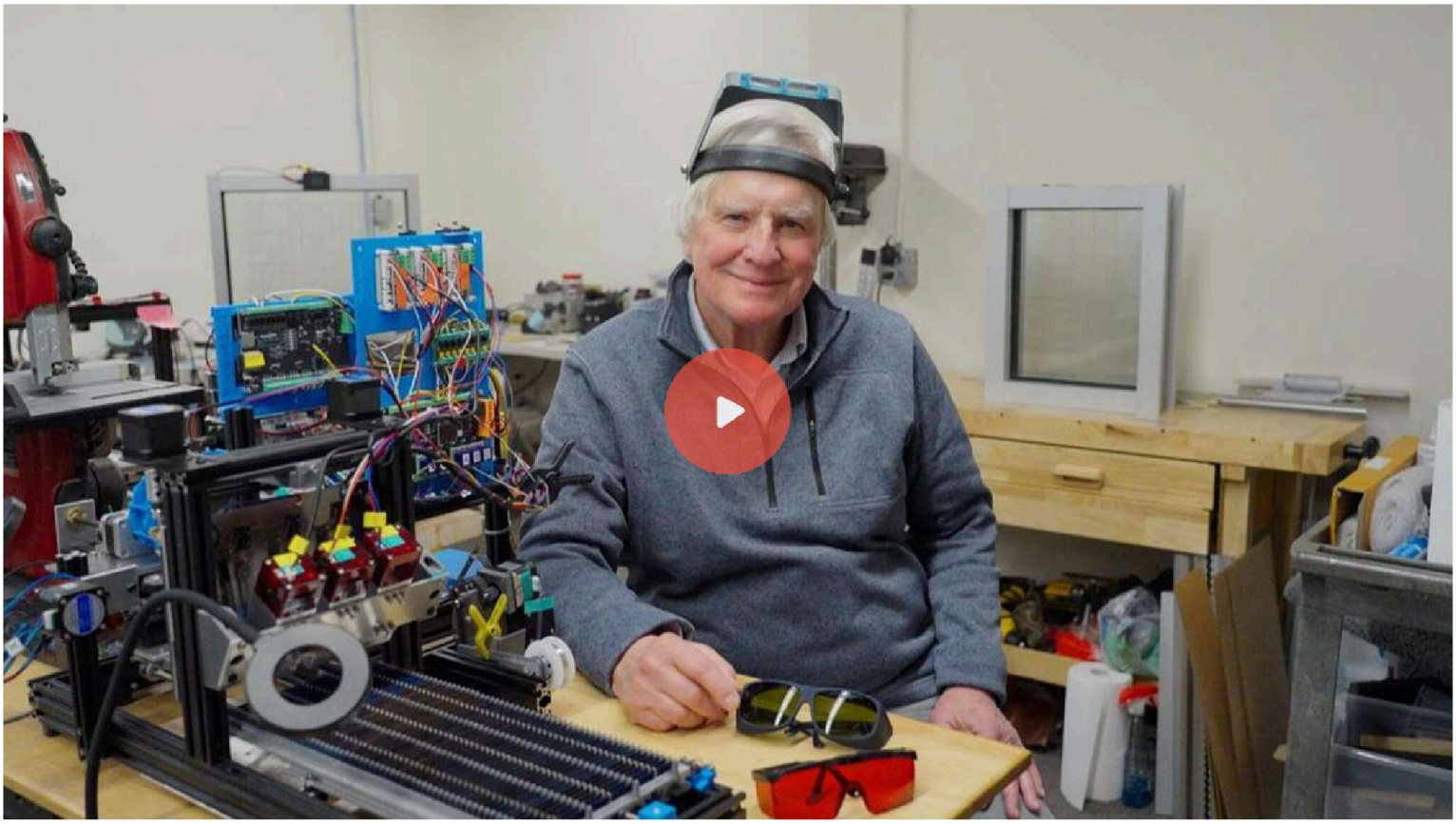


INVEST IN **STELLARIS CORPORATION**

YOUR BUILDING. ENERGIZED.

clearpower.energy Nashua, NH

Highlights

1. The market for Building-Integrated Photovoltaic windows is projected to rise to $13 B by 2028

2. ClearPower was awarded editors' pick, Architectural Record Product of the Year 2024!

3. National Renewable Energy Laboratory reports ClearPower is as powerful as a conventional solar panel

4 World-class team with decades of experience at Evergreen Solar, Daystar Tech & BTU International

5 ClearPower is uniquely able to generate panel-level power with total window transparency!

Featured Investor

ROGER GREGORY HAMEL

Invested $25,000

Follow

Syndicate Lead

My company that helps the unemployed fill skills-gaps through training and certifications to get them into their next GREAT job!

visible-edge.com

"Stellaris has a development and support team with vast cumulative experience. They created ClearPower Energy, which is revolutionizing sustainable architecture with its groundbreaking photovoltaic window technology. As the demand for energy-efficient and environmentally friendly building solutions grows, ClearPower offers a seamless integration of solar power generation into the very fabric of modern structures. For me, investing in their team and technology represents a rare opportunity to support a technology that is not only visionary but also commercially viable and urgently needed in today's energy-conscious world. At a time when the global demand for sustainable infrastructure and renewable energy solutions is accelerating, ClearPower is uniquely positioned at the intersection of solar innovation, aesthetic architectural design, and environmental impact. At the heart of ClearPower's innovation are their building-integrated photovoltaic (BIPV) windows. These windows incorporate bi-facial, crystalline silicon solar cells—proven for their durability and performance—sandwiched between two panes of insulated glass. Uniquely arranged in a horizontal orientation, these cells resemble tiny Venetian blinds that are always open, rendering them virtually invisible from a short distance. This design not only maintains the aesthetic and transparency of conventional windows but also enables them to generate electricity efficiently. Performance-wise, ClearPower's BIPV windows are exceptional. They can harvest up to five times more electricity than competing technologies, with annual power outputs approaching those of non-transparent high-efficiency solar panels, depending on the building's location and orientation. This capability transforms windows into significant contributors to a building's energy needs, reducing reliance on external power sources and lowering utility costs. Beyond energy generation, these windows offer additional benefits. They contribute to thermal regulation by blocking

direct sunlight during warmer months and allowing it during colder periods, thereby reducing heating and cooling demands. Moreover, installations of ClearPower windows are eligible for a 30% federal investment tax credit, akin to traditional rooftop solar systems, enhancing their financial appeal. ClearPower's technology has undergone rigorous testing by independent entities, including the U.S. Department of Energy's National Renewable Energy Laboratory, affirming its efficacy and reliability. This validation underscores the company's commitment to delivering high-quality, performance-tested solutions. In an era where building codes increasingly mandate reduced fossil fuel consumption and a shift towards clean, carbon-free energy, ClearPower's photovoltaic windows offer a timely and effective solution. They empower buildings to become self-sustaining power plants, aligning with global sustainability goals and contributing to a greener future. In summary, ClearPower Energy stands at the forefront of sustainable building innovation. Their photovoltaic window technology not only meets the aesthetic and functional demands of modern architecture but also addresses the pressing need for renewable energy integration. By choosing ClearPower, stakeholders are investing in a solution that delivers environmental benefits, economic savings, and a step forward in the fight against climate change."

Our Team

Jim Paull CEO

Jim is a contrarian creator of novel solutions to important problems who lives by the motto "If it doesn't violate the 2nd Law, there's gotta be a way" and has been applying it to environmental causes his entire career.

Jack McCaffrey Head of Manufacturing

Jack is a master at building solar factories and putting together teams of engineers and manufacturing professionals who work really well together. He has done that at Evergreen Solar, Daystar Technologies and BTU International.

Jen David Director and Secretary

Jen is an environmental lawyer with a JD and a Masters in environmental law and is a Vice President at Sompo International. She carries her passion about the environment into her excellent work as a Director of Stellaris.

Peter Morse Senior Automation Engineer

Peter Morse Senior Automation Engineer

Peter is passionate at making things that make things work, engineering innovative automated manufacturing machinery at Stellaris, Evergreen Solar and Polaroid. Helping Stellaris for over 15 years, he's been a major force behind our accomplishments.

James Paull Director and Treasurer

James brings his expeditious problem solving skills to both his role as Director of Stellaris and as Senior Business Development Manager for Good Harbor Group, a talent acquisition organization.

Rob Janoch Senior Engineer

In addition to being a very accomplished solar engineer, Rob is a self-admitted gismo geek who loves all things mechanical, both old and new. His considerable laser expertise is really important for our manufacturing.

ClearPower: An Electricity-Generating Window Insert

Electricity-Generating Window Insert

Stellaris
The Future is Clear

Buildings need an inexpensive source of green electricity

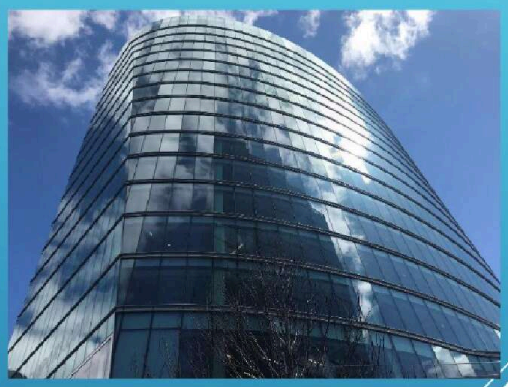
ClearPower window inserts

are the best way to do it.

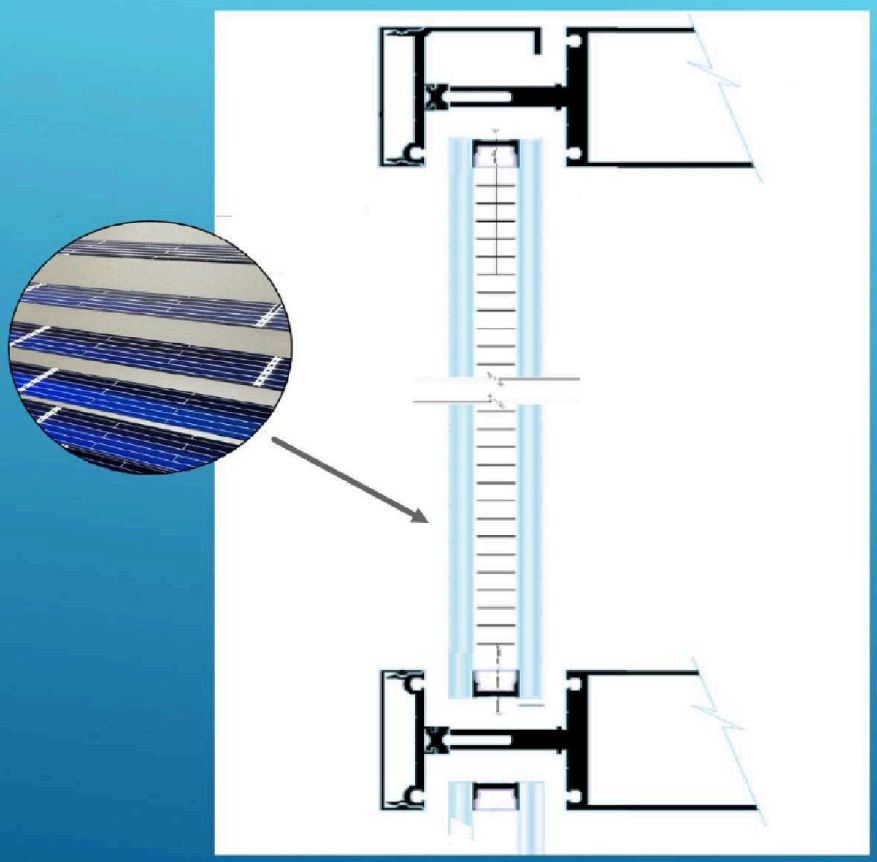
It is unique in being transparent, low-cost and powerful!

Why this is important:

Buildings worldwide will need to get 40% of their power from renewables by 2030.



Source: International Energy Agency



Section through insulated glass window

Simple.
Inexpensive.
Powerful.

Our technology is proprietary.

(12) **United States Patent**
Paull

(10) **Patent No.: US 11,869,996 B2**
(45) **Date of Patent: Jan. 9, 2024**

(54) **ENCAPSULATED PHOTOVOLTAIC CELLS**

(71) Applicant: **Skyfuels Corporation**, Nashua, NH (US)

(72) Inventor: **James R. Paull**, Andover, MA (US)

(73) Assignee: **STELLARIS CORPORATION**, Nashua, NH (US)

(*) Notice: Subject to any disclaimer, the term of this patent is extended or adjusted under 35 U.S.C. 154(b) by 0 days.

(21) Appl. No.: **17/188,647**

(22) Filed: **Mar. 1, 2021**

(65) **Prior Publication Data**

US 2021/0273129 A1 Sep. 2, 2021

Related U.S. Application Data

(60) Provisional application No. 62/983,234, filed on Feb. 28, 2020.

(56) **References Cited**

U.S. PATENT DOCUMENTS

OTHER PUBLICATIONS

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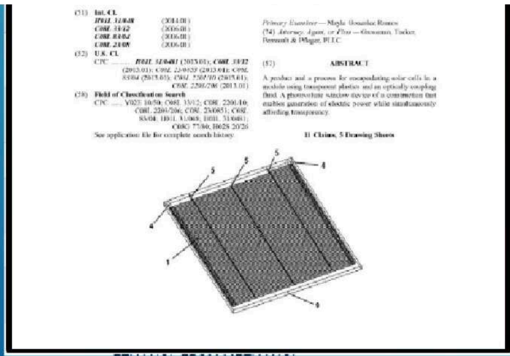
Patents and applications:



(51) Int. Cl.

(52) U.S. Cl.

(58) Field of Classification Search

See application file for complete search history.

(57) ABSTRACT

A product and a process for encapsulating solar cells in a module using transparent plastics and an optically coupling fluid. A photovoltaic window device of a construction that enables generation of electric power while simultaneously affording transparency.

11 Claims, 5 Drawing Sheets

US 11,869,996 B2
US 20240145608 A1
PCT/US23/78304

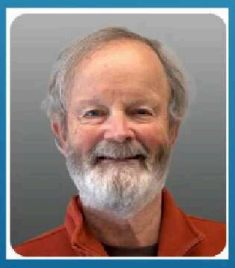
Our vision is to become a standard add for insulated glass windows around the world.

We have a world-class team to

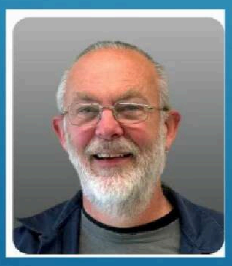
make it happen.

Jim Paull
CEO & Founder
> 20 years in renewables & energy manufacturing

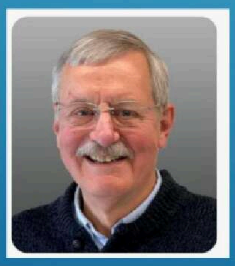
Jack McCaffrey
Head of Manufacturing
VP manufacturing & engineering Evergreen Solar and Daystar Technologies



Peter Morse
Chief Engineer
19 years automation and product design for Stellaris, Polaroid & Evergreen Solar



Rob Janoch
Senior Engineer, cell processing
Stellaris, Bright Spot Automation & Evergreen Solar



We don't compete with big window companies.

We partner with them.

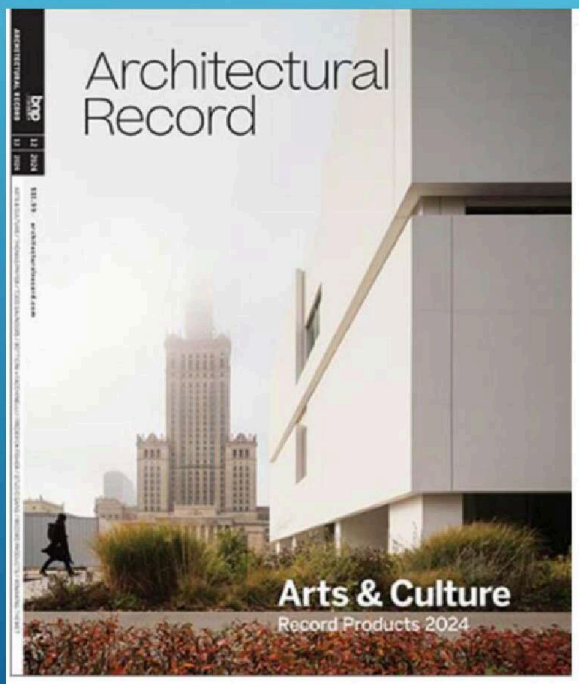
By bringing an exciting addition to their product lines

We've made an excellent start.

We now have automated manufacturing and are open for sales.

But we have more to do..

We were selected as a 2024 Product of the Year by Architectural Record Magazine!



ClearPower
This transparent photovoltaic insert, placed inside an insulated-glass unit (IGU), generates electricity at a rate comparable to that of standard solar panels. Stellaris's ClearPower is composed of a bifacial silicon solar cell array, and, sold in modular units, can fit into nearly any size IGU.
clearpower.energy

The National Renewable Energy

NREL
Transforming ENERGY

Renewable Energy Laboratory has confirmed that ClearPower is as powerful as a conventional panel.

We're solving an important problem with an innovative product and a robust business model.

Please consider helping us achieve that solution.