



ENDLESS SOLAR CORPORATION LIMITED

ACN: 122 708 061

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PROJECT PROGRESS UPDATE

DATE OF ANNOUNCEMENT: 22 September 2023

Cool Solar project update

Dear Shareholders,

The Endless Solar Corporation Limited, is pleased to announce receipt of the Endless Energy Solutions (EES)- Project Update, from EES Chairman Mr. Andrew Hynson

This announcement has been approved for release by the Board of Endless Solar Corporation Limited.

Yours Sincerely

David Craig
Director.

For more information visit www.endless-solar.com.au

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Cool Solar Project Update – September 2023

Background

Endless Solar Corporation has previously developed and patented an innovative air conditioning system that uses stored hot water as its primary power source. The system was the outcome of a successful Innovation Australia project run at the Australian National University by Dr. Mike Dennis.

The system is designed to be manufactured in high volume and deployed as distributed infrastructure. The hot water storage is in effect a “battery” for solar energy storage.

The aim of the technology is to be distributed infrastructure that offsets the power stations that are being removed from the electrical grid. When deployed it will reduce grid demand, reduce consumer exposure to energy cost increases and reduce the need to expand the distribution system (poles and wires).

The system works by using solar panels to directly heat stored hot water. The stored hot water is used to power an ejector driven refrigeration system. The system is close coupled with a small conventional a/c system.

Core Team

The core team consists of:

- Dr. Mike Dennis: Mike is the inventor of the system and has deep knowledge of the technology at both a practical and theoretical level.
- Leon Pikovski: Leon is a highly experienced mechanical engineer with particular expertise in air conditioning and thermal management systems designing for high volume manufacture.
- Peter Zuchowski: Peter is a highly experienced electrical engineer with decades of experience across multiple business sectors.
- Andrew Hynson: Andrew is an experienced executive with decades of experience managing highly complex product development projects with a focus on high volume manufacturing.

Potential Impact¹

The system cost will vary depending upon site location. The Cool Solar product cost will be competitive on a subscription model basis. Once the system is in high volume production the hardware costs are expected to decrease.

The target is to achieve 75-80% reduction in heating/cooling energy and hot water energy from the electrical grid. For a medium sized house in Melbourne with 3 to 4 people the savings over a year are expected to be around 24kWh per day (averaged over the year).

As an indirect comparison, 1.3M to 1.4M household installations would be of the order of magnitude of Victoria’s Loy Yang A power station. Loy Yang A is rated at 2200MW and is scheduled to close in 2035. Loy Yang A produces around one third of Victoria’s electricity.

The Cool Solar technology is one of the few demand side solutions being developed. Each Cool Solar installation reduces the demand on the grid. Unlike most renewable energy technologies,

Cool Solar does not require any investment or upgrades to the electrical distribution system (poles and wires, etc.).

Current Status

The system has previously been proven in the lab at ANU using a superseded technology refrigerant. The system has been redesigned to utilise the latest technology refrigerant R1234yf, which has a Global Warming Potential (GWP) of less than one. It is now in the technology commercialisation phase.

A complete virtual prototype has been designed. The construction of the physical prototype that matches the virtual design is under way. The majority of the hardware has either been purchased or manufactured. Assembly has commenced.

The static control system model is complete. The dynamic control system model is under development.

Next Steps

The physical development rig will be completed shortly. This will allow full system testing to commence. Full system testing will enable development of the control system algorithms, detailed design specifications for the pilot system and initial sourcing discussions for the production version.

It is expected that the next announcement will be related to the commissioning of the development rig.

Andrew Hynson

22 September 2023

1. Individual household electricity consumption varies enormously depending on such things as the house's energy star rating, use of natural gas, number of occupants, location and so on. The estimates noted are intended as a generalised guide.