

CEFC finances world-leading solar thermal technology for greenhouses

Up to \$40 million CEFC senior debt co-finance

SUMMARY

The Clean Energy Finance Corporation (CEFC) will provide up to \$40 million in senior debt finance to Sundrop Farms for a world-leading greenhouse development near Port Augusta, South Australia. The sustainable greenhouse is the first of its kind, using solar thermal technology to provide irrigation from desalinated seawater and heating and cooling for the greenhouses.

Sundrop Farms is building the 20 hectare greenhouse facility which will use a renewable power supply and a sustainable water source to produce over 15,000 tonnes of tomatoes a year for metropolitan markets across Australia. The project should be completed by mid 2015.

The innovative, integrated greenhouse system will provide a major boost to the Port Augusta economy and will have wider benefits for both businesses and sustainable agriculture research in Australia. The project will also be a significant demonstration of the potential for meeting the global challenge to increase food production sustainably and profitably, using renewable technologies.



PROJECT IMPACT

The benefits of growing tomatoes in a greenhouse rather than a field are:

- Year-round supply
- Higher yields
- Better quality produce
- Reduced use of herbicides and pesticides
- Greater output per hectare (about 10 times)
- Improved water efficiency (about 5 times the production per litre of water)

Traditional greenhouses usually have high energy requirements for heating and cooling, requiring significant water resources. The Sundrop Farms System™ achieves all the benefits of greenhouse agriculture while minimising the environmental impact through using solar energy to desalinate seawater, a sustainable water source.

The solar technology is also used to provide the energy for heating and cooling the greenhouses, requiring limited use of grid electricity.

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Project Impact continued...

Seawater is further used to scrub the air flowing into the greenhouses of any organisms that could be harmful to plants and this reduces, or in some cases eliminates, the need for pesticides.

The ongoing operational costs are lower than for traditional greenhouses, with the differential benefit increasing as energy prices rise, making it a cost-effective solution despite somewhat higher installation costs. The security of supply for water and energy independent of price pressures and volatility also minimises the risk profile of the greenhouse.

When fully operational, Sundrop Farms will employ about 200 people. Both the installation and ongoing operations will create local jobs, and skills training for the local workforce will be established. There are substantial opportunities for local and state-based businesses during the construction phase.

Sundrop Farms is also completing an Australian Industry Participation Plan, and establishing a program to promote the opportunities for local manufacturing, plant, equipment and service providers.



FINANCE

CEFC financing for part of the project cost will be supplemented by financing from institutional banks.

THE SUNDROP FARMS SYSTEM™

In 2010, Sundrop Farms began operating its first commercial farm in Port Augusta, South Australia. It is an area in which traditional agriculture struggles given the lack of fresh water, degraded pasture land and harsh climate.

Sundrop Farms has established 0.2 hectares of greenhouses growing tomatoes and capsicums using seawater and sunlight. This greenhouse system uses concentrated solar thermal power that uses mirrors to concentrate the sun's energy onto a receiver containing a fluid. The fluid reaches very high temperatures and drives an engine connected to an electrical power generator.

The technology will extend Australia's world-leading position in agriculture for semi-arid environments by developing the technology and skills for more sustainable agricultural practices that rely on renewable energy sources. The intent is to use the project to foster a centre of excellence in South Australia and create the opportunity to export Australian services and technological know-how.

"CEFC is pleased to help catalyse finance for this exciting project. It is an example of the types of applications to which the clean energy technology can be applied to transform the Australian economy and create new industries in regional areas. "

Oliver Yates

CEO, Clean Energy Finance Corporation



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Sundrop Farms is a leader in sustainable horticulture for the arid world, growing high-value crops in greenhouse settings utilising abundant and renewable resources – seawater and sunlight. The revolutionary Sundrop Farms system integrates solar collectors, desalination technology, electricity production and climate control, solving many food and water security issues in agriculture.

“We have now completed a highly successful commercial trial of our system in Port Augusta and have received positive feedback from national customers. CEFC’s finance provides an important foundation for the project, facilitating investment from other banks.”

Philipp Saumweber

Founder and CEO, Sundrop Farms

The Clean Energy Finance Corporation (CEFC) has been established by the Australian Government to mobilise capital investment in renewable energy, low-emissions technology and energy efficiency in Australia.

The CEFC’s flexible mandate and commercial approach provide an opportunity to achieve genuine market-based change by helping overcome the financial barriers that have previously prevented clean energy investment at scale.

Learn more at www.cleanenergyfinancecorp.com.au

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