

Solar farming

A large-scale solar power system that generates and sells power on the wholesale spot market. Farmer leases land to energy company.

Production and Returns

- Anecdotal - \$8,000 per hectare/year for lease of land.
- Farmers Weekly quoted \$2,500 to \$6,500 per hectare/yr for long term lease (35 years) increasing with CPI. Can be constructed to allow for sheep grazing under solar panels at a reduced stocking rate and lower farming returns.
- Possibility of cropping or horticultural enterprises under panels.
- Reduced farm labour required.

Climate and Property Suitability

- High sun exposure. Flat to gently sloping land.
- Proximity to national grid.

Environment

- Likely that a consent would include ecological restoration conditions e.g. riparian planting, wetland restoration, boundary planting, with indigenous biodiversity.
- Earthworks managed with erosion and sediment control.
- Sheep rather than cattle at reduced stocking rate has a beneficial environmental impact.

Information and Support

Duncan Humm, who farms in Canterbury, spoke on solar farming at the 9th February 2023 UTW workshop. A video of this presentation will be available on the on the [Taieri LUDO website](#) under development. He has also recorded a podcast that will be available on this site. Duncan is willing to assist those with queries from those interested. He can be contacted on 027 228 1073 duncan@nzfarming.org

References

Information on supplying the national grid, and benefits and concerns, is available in anecdotal NZ and International (e.g. Australian) news articles on line. e.g.

<https://www.farmersweekly.co.nz/technology/light-and-shade-of-signing-on-with-solar/>
<https://www.epa.govt.nz/fast-track-consenting/referred-projects/tauhei-solar-farm/>

The following companies, among others, are investing in solar farming in NZ. Little information is provided on their webpages. Farmers interested are asked to contact them.

<https://www.1news.co.nz/2022/10/02/the-land-grab-rush-for-solar-farms/>

Helios is investing \$1.3 billion into a suite of solar farms. Lodestone, Meridian, Contact and Genesis are also set to be big players in the solar market. In the last few weeks, UK company, Harmony Energy was given the green light for a large solar farm in the Waikato.

<https://lodestoneenergy.co.nz/> <https://www.kiwisolarfarms.co.nz/>

<https://www.stuff.co.nz/environment/300735444/green-light-to-create-new-zealands-largest-solar-farm-with-900000-panels> Todd Generation under subsidiary Nova Energy.Cam

Henderson Nuffield scholar. "Farming energy" (2020).

<https://www.nuffieldscholar.org/sites/default/files/2021-04/Final%20Nuffield%20Report%20C%20Henderson.pdf>