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## SUBMISSION ON NOTIFIED APPLICATION CONCERNING RESOURCE CONSENT

(Form 13)

### Section 95A Resource Management Act 1991

To: The Chief Executive  
Central Otago District Council  
PO Box 122  
Alexandra 9340  
[resource.consent@codc.govt.nz](mailto:resource.consent@codc.govt.nz)

### DETAILS OF SUBMITTER

Full name: TANYA MARIE NEWMAN

Contact person (if applicable):  
\_\_\_\_\_

Electronic address for service of submitter: tanyanewman@hotmail.co.nz

Telephone: 021 072 6412

Postal address (or alternative method of service under [section 352](#) of the Act):  
\_\_\_\_\_

22A LAUNCESTON PLACE

RANFURLY 9332

This is a submission on the following resource consent application: RC No: 240065

Applicant: Helios OTA Op LP Valuation No: 2828012800

Location of Site: 48 Ranfurly-Naseby Road

Brief Description of Application: Land Use Consent to Construct, Operate and Maintain a Solar Farm (Maniatoto Plain Solar Farm) being a Renewable Electricity Generation Activity in a Rural Resource Area.

The specific parts of the application that my submission relates to are:  
(give details, attach on separate page if necessary)

I oppose Land Use Consent to construct, operate & maintain a 300MWac solar farm associated infrastructure, including battery energy storage, substation and transmission line infrastructure, in the Rural Resource Area at 48 Ranfurly - Naeby Rd.

This submission is: (attach on separate page if necessary)

Include:

- whether you support or oppose the specific parts of the application or wish to have them amended; and
- the reasons for your views.

Please see attached

I/We seek the following decision from the consent authority:  
(give precise details, including the general nature of any conditions sought)

Decline Resource Consent

I ~~support~~ oppose the application OR neither support or oppose (select one)

I wish / ~~do not wish~~ to be heard in support of this submission (select one)

I ~~am~~/am not\* a trade competitor for the purposes of [section 308B](#) of the Resource Management Act 1991 (select one)

\*I/We am/~~am not~~ (select one) directly affected by an effect of the subject matter of the submission that:

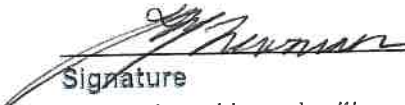
- adversely affects the environment; and
- does not relate to trade competition or the effects of trade competition.

\*Delete this paragraph if you are not a trade competitor.



~~\*We will consider presenting a joint case if others make a similar submission.~~  
\*Delete this paragraph if not applicable.

I ~~request~~/do not request (select one), pursuant to [section 100A](#) of the Act, that you delegate your functions, powers, and duties to hear and decide the application to 1 or more hearings commissioners who are not members of the local authority. "See note 4 below as you may incur costs relating to this request."

  
\_\_\_\_\_  
Signature  
(to be signed by submitter or person authorised to sign on behalf of submitter)

16.12.2024  
\_\_\_\_\_  
Date

In lodging this submission, I understand that my submission, including contact details, are considered public information, and will be made available and published as part of this process.

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#### Notes to submitter

1. If you are making a submission to the Environmental Protection Authority, you should use [form 16B](#).

The closing date for serving submissions on the consent authority is the 20th working day after the date on which public or limited notification is given. If the application is subject to limited notification, the consent authority may adopt an earlier closing date for submissions once the consent authority receives responses from all affected persons.

2. You must serve a copy of your submission on the applicant as soon as is reasonably practicable after you have served your submission on the consent authority.
3. If you are a trade competitor, your right to make a submission may be limited by the trade competition provisions in [Part 11A](#) of the Resource Management Act 1991.
4. If you make a request under [section 100A](#) of the Resource Management Act 1991, you must do so in writing no later than 5 working days after the close of submissions and you will be liable to meet the additional costs of the hearings commissioner or commissioners, compared to our hearing panel. Typically these costs range from \$3,000 - \$10,000.
5. Please note that your submission (or part of your submission) may be struck out if the authority is satisfied that at least 1 of the following applies to the submission (or part of the submission):
  - it is frivolous or vexatious:
  - it discloses no reasonable or relevant case:
  - it would be an abuse of the hearing process to allow the submission (or the part) to be taken further:
  - it contains offensive language:

it is supported only by material that purports to be independent expert evidence, but has been prepared by a person who is not independent or who does not have sufficient specialised knowledge or skill to give expert advice on the matter.

I oppose the Land Use Consent to construct, operate and maintain an industrial solar facility and would like to start my submission with the following points supported by research articles and the Central Otago District Council's Long Term Plan.

The following points will include environment, health & wellbeing, pollution, traffic and fire risk.

Environment:- In reference to the CODC Long Term Plan on pages 11 (4,6,7 & 8) and page 13 the CODC states it's strategic objectives are to support community outcomes by the "Protection of productive lands". To support outdoor recreational activities "e.g "Dark skies". Support clean lakes and rivers. Including the statement that Productive land & rural settlement is protected. Operating in harmony with our natural environment. Celebrating and preserving our wide open spaces. Infrastructural development is environmentally conscious and that environmental implications have been considered.

The Maniatoto area is a unique landscape and as such it also has people living locally that rely on this fact for their businesses/income, including artists, photographers including an award winning photographer, as well as Dark skies observations, rail trail biking tours, mountain biking, wilderness tours, just to name a few. As well as these businesses there have been movies made in this area due to this unique landscape with a movie being filmed in this area, currently.

The glare from 660 hectares of solar panels will have a significant impact on many people & their livelihoods. There will also be glare at night as well as the day which will disturb humans but also wildlife & neighbouring farm animals. Drivers will be affected by this glare as this road is used regularly despite it being a dirt road.

We live in an extreme temperature environment with temperatures at times colder than minus 11 degrees centigrade in winter & above 30 degrees centigrade in summer in combination with extreme winds. We can get snowfall at any time of year. As well as these factors, the whole of New Zealand is an earthquake prone zone with the alpine fault overdue, currently.

It is common to get grass fires in the Maniatoto & surrounding areas which can quickly get out of control and requires quick action from our dedicated volunteer first responders which can include volunteers from other districts but takes time for extra support due to our remote geographical location. In the case of lithium batteries being stored at this proposed site with up to 32 batteries per container & the fact that any amount of moisture inside these containers would destabilize the lithium battery to start a chemical reaction of "thermal runaway" which ensues fire, explosion & the release of highly toxic gases. The resulting plume will cause a threat to life & cannot be put out with water & could burn for days.

All these factors will lead to higher risk factors for damage & a shortened life span to the solar panels & lithium batteries. Because of damage to solar panels which currently contain Lead & Cadmium, there is potential for these toxic chemicals to leach into soils & waterways. If this were to occur this would be a major threat to our health & wellbeing, as well as contamination of productive farmland. Please see article in support of these identified risks.

I have had 37 years of experience as a Nurse obtaining my Bachelor of Nursing in 2004. I believe the risks of this consent application being approved by Council will lead to irreversible damage to our environment as well as our health & wellbeing.

\*The effects of leaching of the lead and cadmium into the land will also be absorbed by farm animals and wildlife entering the food chain and consequently entering the human body. These

dangerous/toxic chemicals have an accumulative effect & cannot be removed. The symptoms & suffering that will follow include

Table 1: Generalised clinical symptoms of Pb poisoning in humans

1/ Mouth Slurred speech, unusual taste, blue line along the gum

2/ Eyes Hallucinations, Blindness of parts of visual field

3/ Ears Hearing loss

4/ Skin Pallor and/or lividity

5/ Liver Lead-induced oxidative stress, cholestasis. Decreased function of liver

6/Kidney Structural failure, effect on the excretory function

7/ Central Nervous System Loss of appetite, depression, cognitive deficient, headache, memory loss, coma

8/ Blood Anaemia

9/ Stomach Nausea, pain, constipation, diarrhoea

“Cadmium does not disintegrate and can be left in the body, soil, water & air for a long time. The Cd concentration in soil solution has a greater effect on water tables and plants due to its higher movement and leaching capacity. Cd is a gastric & pulmonary irritant which if ingested or inhaled can display the following symptoms such as a burning sensation, stomach pain, shock, vomiting, nausea, salivation, vertigo, muscle cramps, etc ...”

Even in minute concentration these chemicals have potential to do serious/severe harm as they accumulate in the environment (water sources) & animals (foodchain) & also humans.

Excerpts on Lead & Cadmium sourced from a review article. Please see reference list for further detail.

Another health & wellbeing concern is the effect of the Electromagnetic field around large-scale solar farms for people living around the vicinity. The World Health Organisation has advised there is a health risk of electromagnetic hypersensitivity associated with living near to solar farms. Symptoms can include headaches, fatigue, skin rashes, & sleep disturbances. Cause is identified as exposure to electromagnetic fields which exist near the solar farms. Additional research is required.

Another factor is that property values have been shown to decrease in value near Solar Farms. Please see supporting evidence in reference list.

This being the case I believe the proposed consent risks far outweigh the benefits in this unique extreme environment.

## Reference List

“The hard truth of building clean solar farms” by Zayna Syed.

15/12/2022. <http://www.popsci.com/environment/solar-farm-construction-epa-water-violations/>

“Lithium-based batteries, history, current status, challenges, and future perspectives”

Authors:- Triana Wulandari, Dereck Fawcett, Subhasish B. Majumder, Gerrard E.J.Poinern. First published 07/10/2023. <http://www.doi.org/10.1002/bte2.20230030>

“Lead and Cadmium toxic effects on human health, a Review” Authors:- Shagufta Rafique, Syeda Shaista Gillani and Rabia Nazir. Journal of Nutritional & Food Sciences (2021) ISSN:2155-9600

“EMF Risks Blog” 2022 Emf-Risks.Com

“Property Values of Homes Near Solar Farms Appraised in New Study” by Paige Bennett.

16/03/2023. Edited by Chris McDermott.

“The influence of solar farms on residential property values” by Jeroen Timmer. Master Thesis Real Estate Studies. University of Groningen. Pg’s 1-38. Date 24/02/2023.

<http://www.frw.studenttheses.ub.rug.nl/4190/1/Thesis-RealEstateStudies-JeroenTimmer.pdf>