

137



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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



DETAILS OF SUBMITTER

Full name: Nigel Graham Voice

Contact person (if applicable):

Electronic address for service of submitter: nigel@realdog.co.nz

Telephone: 027 5038753

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

5 Bypass Road, ROR, Ranfurly
9396

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)

The entire application, as per
attached letter

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.

I oppose the entire application
as per attached letter

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

I wish the application to be declined
in full as per attached letter

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:

(a) adversely affects the environment; and

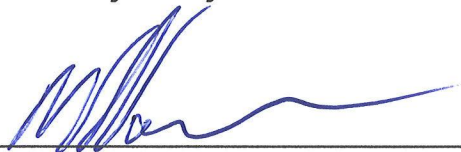
(b) ~~does not relate to trade competition or the effects of trade competition.~~

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

***I/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)

Date

16/12/24

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.

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.

The Chief Executive
Central Otago District Council
PO Box 122
Alexandra 9340
: resource.consent@codc.govt.nz

RC240065 – Submission on Application by Helios Op LP to Construct, Operate and Maintain a Solar Farm in the Rural Resource Area at 48 Ranfurly-Naseby Road

This letter is provided in support of the attached completed submission form referencing the above project.

- Background

My families small 2.4 hectare property is situated directly next door to and south of the proposed utility. In relation to many of the outlined issues below our property now holds no value. Everything we have worked for our entire life is tied up here, this property was purchased 14 years ago from CODC and we had to prove to the local Community Council we would establish an appealing business and dwelling visually as it is the entrance to both Ranfurly and Naseby .We work tirelessly to live up to this requirement , now have nothing to pass on to our four children .

Why is Helios not held to same standards ?

Reference: District Plan

4.3.1

Objective - Needs of the District's People and Communities

To recognise that communities need to provide for their social, economic and cultural wellbeing, and for their health and safety at the same time as ensuring environmental quality is maintained and enhanced.

Overview

My submission relates to the entire proposal, with key issues relating to

- Business Income Loss

My husband and I operate a successful business (Winner Central Otago Business Award recipient 2017) , The Real Dog Equipment Company Ltd at our premises 5 Bypass Road, Ranfurly. This is directly next door to and south of the Utility proposal.

For the past 13 years we have run successfully a Dog Boarding facility, boarding up to 20 dogs . This activity will be untenable to run should this utility be

granted consent. In the event of a BESS thermal runaway event when the cells will off-gas large amounts of highly toxic fumes we have no way of guaranteeing their safety. The risk is too great. The perceived risk to customers will be too great.

Customers entrust very precious animals with us , there is simply no way we could knowingly put them at that risk.

- Loss of security living in a safe place

Reference : District Plan

4.3.1

Objective - Needs of the District's People and Communities

To recognise that communities need to provide for their social, economic and cultural wellbeing, and for their health and safety at the same time as ensuring environmental quality is maintained and enhanced.

Living in continual fear and the threat from toxic by-products of combustion at the Utility is not living securely or with quality. Immediate danger to all life from even a single battery pack has the potential to create a toxic plume that is an immediate danger to life and health.

<https://www.nature.com/articles/s41598-017-09784-z>

Of course because we have actually no idea what may or may not be onsite, here is info about the newer LiFePo4 batteries that claim to not have concerns , but researchers have tested that idea and found that lithium iron phosphate batteries have higher Hydrogen Fluoride emissions than older lithium cobalt oxide types.

HTTPS:www.mdpi.com/2313-0105/10/10/366

The BESS will be the most dangerous item (to environment and our health)within the area, I am dumbfounded why it was not even mentioned in the CODC assessment of the application, this was sighted and signed off by 3 staff. I also believe Helios has continued to deceive the community by saying "there is no risk" .

- Loss of of future character of where we chose to live and do business

We chose the Maniototo to bring up our family, where our Grandchildren should be able to return safely to and enjoy the character of the area as their parents have. Our children were taught and learnt at Maniototo Area School about pride in your local places, pride in our local landscape, care for it, protect it, tell stories about it.

This Utility will take away that character from our landscape and pride from our families.

- The length of time , if ever for landscape mitigation.

Reference : we provide expert local knowledge of creating plantings from bare Maniototo land .

We started planting trees and shrubs on our property 13 years ago. Most have died and replacements planted, those that have struggled to 2m have had continuous water and shelter from the localised very high winds. We are often hammered by high winds where we live, next door to this proposed Utility. All plantings for mitigation will need shelter fences both sides erected to give them any chance of survival , watering daily over most of the year and robust frost protection .

Where is the water coming from ? water is limited in the Maniototo.

On the road from Naseby the view will be forever changed & no amount of planting will hide the rows and rows of black lines .

Any areas that planting does eventually grow will only serve to block the existing famous vistas we are known for , especially visitors to Naseby While trees are nice, I don't want to see trees I want to see mountains and big views, snow, cloud formations rolling over hills.

Should consent be granted I would like to see a condition that no construction begins until ALL mitigation of visual pollution is successful and complete.

- Cumulative effect

Will this be just the first of many many industrial Utilities in the Maniototo ? Local knowledge will say several other farmers have been approached already by solar developers.

If this is the case, no the community will not fight because they will have all left.

- Lithium Battery Storage (BESS)

Despite covering this topic with CODC and the reason it needed to go to public notification these are not even mentioned in the CODC assessment report of application.

The potential for fire is huge, but the fire itself (while vigorous, long lasting and almost impossible to extinguish) isn't the biggest problem when a lithium battery ignites, the toxic residues are. There is a growing mass of research on this problem - and it's very worrying. Here's a link to a small collection of research papers I've put together to help people understand the extent of the problem.

https://1drv.ms/f/s!AlwusqX1G1GsgoZ4x27Fx_zz7LxLHg

Are fires likely? Yes they are. Can we predict how likely? Probably. There have

already been four major fires in utility scale battery storage facilities in Australia. EPRI keep a database of all the fires they can identify (there is no compulsory reporting of such events) which you can find here https://storagewiki.epri.com/index.php/BESS_Failure_Incident_Database

EPRI is an acronym for Electric Power Research Institute - they are an impeccable and reputable source and, as you would expect from an engineering body, they list their methodology very precisely.

According to EPRI, we can expect 0.2 fires for every GWh of installed BESS. The proposal at Naseby is to install (initially) about 0.125 GWh of BESS. We can't be more accurate than that because Helios will not tell us the type of units they intend to use, the size of those units, the battery chemistry involved or the manufacturer.

If we assume 0.2 fires per GWh of installed BESS per year then, at Naseby, we could calculate that the risk of a battery fire is 0.2×0.125 each year. That's a 2.5% risk of fire at Naseby each year, a twenty five percent chance in the first ten years, a 62% chance of fire over the projected life of the project. That's using the data from an impeccable source - that is bound to underestimate the true risk because they will have undoubtedly missed the reporting of some fires worldwide

That is a very credible risk - and the exact opposite of trivial. It's a risk that is also incredibly well known within the industry - but a risk that is not addressed at all in Helios's application beyond a mention that they will talk to FENZ. That's not likely to be a fruitful discussion because the advice from the manufacturers to fire fighters is not to attempt to extinguish a fire.

It's pretty easy to find reports on fires in BESS units that have required widespread and long lasting evacuations of the surrounding areas. That's because the vapor generated by thermal runaway in a BESS unit contains huge quantities of highly toxic compounds. Depending on the state of charge, a BESS battery the size of only one of the 32 units proposed here can generate between 600kg and 2400kg of highly toxic hydrogen fluoride gas.

The question is again, why was this huge major risk not tackled or at least commented on by CODC planners.

An email dated 28/04/24 was sent to CODC planners from myself and another neighbour outlining all the risks of the Lithium-ion Batteries from our engaged Consultant.

- Noise from transformers, construction noise including pile driving and operational noise on quiet early mornings on any hot day or during still frozen day

The application mentions steel piles for installing the proposed 550810 solar panels and that they are to be driven into the ground 2.5 to 3 m. The noise from this will be great the most recent case of piles being driven in the South Island was Lyttelton Port neighbours were affected and complained that lived up to 6 km away at the incessant loud noise. We are extremely worried about the noise nuisance that this will make on our property considering we spend most of our time outside not within the building and generally downstream in the prevailing wind

THE Marshall Day report states that the construction noise meets the relevant standards however this ongoing for 24 months (conservatively) would breach section 16 of the resource management Act

Reference 16 "duty to avoid unreasonable noise every occupier of land including any premises and any coastal marine area and every person carrying out an activity in on or underwater body or the coastal marine area shall adapt the best practice practicable option to ensure that the omission of noise from the land or water does not exceed a reasonable level "

The dust problem will be huge not only during construction time but also once a facility is operational as it is unlikely much vegetation will regrow successfully without water and noting this property has no water right .Where are they going to get the water from ?

I would expect a detailed report on water acquisition for the life of the Utility.

The applicants proposal and the report on acoustic assessment and the assessment from CODC have all failed to mention the large transformers that will be within the substation these transformers (although not stated which type) they will be huge , the ones most likely to be used reference to be 90 to 95 dB this is well beyond the acceptable noise for this area. The two transformers as per the Helios design have a large blast wall between them this will purely serve to augment the sound outwards.

Again , why were these transformers not mentioned in the CODC assessment, why have Helios not been honest about there noise production.

I would like to see a detailed report from a credible expert about the type and the noise assessment.

- Risk of fire and contaminants in event of fire

Reference RMA : "The RMA seeks to intervene where activities are likely to result in unacceptable environmental impacts. "A very high probability that when the BESS burns or malfunctions the resulting leaching into the local aquifer will have irreversible unacceptable impact on the environment.

Reference : RMA . Duties and Restrictions Section 15 : Discharge of Contaminants.

" A resource consent must be obtained to discharge a contaminant into the air or onto land in a manner that contravenes national environmental standards or regional rule unless the discharge is expressly allowed by a national

environmental standard or other regulation”

Can Helios guarantee this discharge won't happen, no . International evidence says it probably will. The risk of this is catastrophic to our environment.

- Glint and glare on our property, the local roads

Because Helios have not provided a clear plan for panels, or elevation of panels the G and G report is not very relevant , referencing reports from Power Page who have provided reports for other NZ solar arrays, they provide an exact measurement every 20m , including elevation and panel backing .

Helios seem to have adopted International best practice to ignore local country roads, just because the road only has a few movements per day does not equate to not keeping them safe. We have a full mixture of tourists and locals drive on our roads. The attempts at mitigation will leave these area open for glint and glare , sun-strike, for a very long time. They would need to be in place before construction even began.

- High risk of ineffective site remediation at end of project or anytime developers exit project.

I would like to see a detailed plan for recycling (not in landfill) for 550018panels and all infrastructure including battery storage. I would expect a bond to be held in CODC of an amount appropriate to this. Current estimate to recycle that same amount of panels today is \$30million .

In the event of damage by high winds or hail I would request a complete management plan to get rid of glass shards in land immediately under and on surrounding land, how they will stop leaching into water table via broken panels, (including lead and cadmium) . Any ingested glass will not be conducive to continued life for stock.

- There is also missing information in the application relating to the details of transformers, the substation and 220V transmission connections, water acquisition, waste disposal , effect of light on life cycles of all living animals , evacuation protocol (humans & stock units)

- Lack of engagement / honesty from Helios

Before this proposal went public Helios failed to contact us in any form, the neighbour who's land it is on called in one day & stated he had a “couple ” of solar panels going way up in his paddocks and had assured the developer we would be no problem.

Reference : email dated 3/11/23 from Sarah Brooks, Helios stated “ the landowners do not speak on behalf of Helios on matters regarding the solar farm”

This would be be the same land owner that has since threatened us and our business should we lodge this opposing submission. Reference : the RMA process is a statutory process of legislation not to be interfered with by any individual.

After expressing concerns to Helios about water contamination . Reply as follows

Reference : email from Sarah Brooks Helios 28/3/2024

Stating . "there is no under ground water report requirement as there is no contamination risk to either soil or water. "

This clearly not true . They can not guarantee no contamination, there is risk. I see this as deliberate evasion and masking the hazards by Helios.

The landscape advisor from Boffa Miskell visited us and on no occasion discussed boundary planting as is stated in Helios's report. Merely commented our trees were only 2m tall after 13 years growth , water & wind protection. We have had email exchange with Helios asking them who is going to be responsible for us, our business, boarding dogs and horses being evacuated for a lengthy time, the answer being , "we have insurance."

I would request to see a detailed advice and plan on a complete evacuation process for ourselves, visitors, customers, our personal dogs, our business boarding dogs, our valuable American Quarter horses.

Where and how we could continue manufacture within our business .

This plan should include all direct neighbours, landowners and all stock units.

I feel very mislead and deceived by Helios telling us they are a "Kiwi" company, although not illegal it is merely a twist on a commercial title. Helios have 30 registered NZ companies on the NZ Companies register, the Ultimate Holding Company is registered in USA , Helios Energy Capital LLC.

The recent liquidation of SolarZero who operated with similar procedure and practice with many registered companies enabling them to walk away. These habitual bad behaviour's do not support that the applicant has ethical or moral interest in our community.

I have included photos taken from vantage points Helios has described as a "fleeting view" clearly this will not be as they describe. I believe we have been deceived as has CODC. Photo 2.

Road names are incorrect on photograph 3. Site Context

Photograph 8 Site context (attached), this is grossly inaccurate. I have attached a more realistic photo (photo 1) of the extensive view every driver, runner, walker and cyclist will see, there is quite some elevation here as you drop down from Naseby

The trees (mitigation)would need to be 20m to do its job, in turn stopping all view of mountains.

All site photos should have been obtained in mid Winter when all deciduous trees were bare, this is indeed when get many visitors to the area to take in our

world of difference.

- Loss of the perceived ideal of the Maniototo, big open raw beauty. Any mitigation planting that might survive will in turn take away the natural views of rolling hills and the vastness that is the Maniototo.

We have a magnificent natural landscape and historic wealth, we surely must celebrate and protect it, especially for those that succeed us. I believe it is important we make wise choices that last beyond our lifetime.

When we love a place enough, you care about what happens to it, you care about the way it develops.

- Loss of tourism appeal for this area of Central Otago and Otago Central Rail Trail

The proposal is not in keeping with the rural character of the area, it will destroy the vast vista of views especially for bikers on the newly proposed gravel bike trails to and from Naseby. These trails have been identified as an important tourism growth area by local businesses.

There must be a workable plan to alert bikers, walkers, runners when there is a malfunction on-site. The resulting toxic gas (Hydrogen Fluoride) release will be catastrophic to unsuspecting travellers or farm workers. Reference under Business income loss.

Reference : RMA section 6(b) " the protection of outstanding natural features and landscape from inappropriate subdivision, use and development"

Whilst CODC planner has identified the land beneath the Utility is not outstanding as in District plan, I believe the entire area makes up what is iconic and is just a part an area of outstanding landscape. Any view from any raised piece of ground will have the Utility in the view.

Maniototo is becoming popular for photography workshops, film companies, NZ and international, why spoil our asset ?

- Loss of community

Nationwide small rural communities are struggling to be viable, already this proposal has our community stressed, frightened for the future loss and unsettled. Already there is talk of selling up before prices drop. People do not want to live here with this on their doorstep.

Reference : Rural Women NZ "giving a voice to Rural Communities across Aotearoa, recognising rural connection and representation"

- Impact on Dark Sky status Naseby Area

No thought or detailed report on the effect this much reflected light will have on the Naseby Dark Sky area. Again giving a view of an industrial Utility on the landscape is not giving the perceived ideal we have here. It will be lost forever. I would expect to see a detailed report from an appropriate expert in Astronomy

and light pollution.

- Lack of clarity around ORC consents

I would like to see consents from ORC be proposed and confirmed , I would expect this proposal should be jointly notified.

- Lack of information around the substation and connection to the Transpower network, more detailed information around the actual use of an underground cable, or will this change to large pylons ?

- Belief Panels will self clean in rain.

Helios have stated the panels will self clean in rain.

Have they studied how little rain we have ?

Rainfalls ability to wash dirt,pollen and other pollutants off solar panels is not as powerful as once thought, and it can impact generation greatly.

Reference : NREL (National Renewable Energy Laboratory) US department

<https://cleantechnica.com>

Where is this water coming from to wash panels ? Will any products be used ?

- No long term benefit for our communities.

Maniototo thrives on what we have , who we are and what it looks like. The temporary influx of 200 approx workers will put huge pressure on our already stretched medical services, law enforcement , volunteer first responders. We can only ask so much of them, this is too much.

Long term we loose what drives our uniqueness.

There is no clear benefit to our community other than the land owners . This is not consistent with the objectives and policies in the District Plan that seek to support the local community.

- Lack of insight into loading HVDC Cook Strait Cable to carry all generated power to North Island.

Why is this massive Utility proposed here so far from where the energy is needed ?

Why burden the HVDC cable in Cook Strait to the extent it will need upgrading at cost \$5b ?

The North Island has far more reliable fuel for Solar.

Reference : Journal of the Royal Society of NZ / SOLARGIS (20196) Transpower

This is stated to be a proposal of National Importance, then why is it being located to the advantage of the developer and not our entire Country .

It is of National importance to preserve our National infrastructure , the HVDC cable . Why over load it so a developer can par take in Energy Trading at massive profits.

I would like to see detailed study and reports as to the advantage of this location, discounting the obvious that we are a small rural community to be walked over easily and it's proximity to Hydro generation to enable energy trading to the developers advantage.

Finally , I would like to know who will hold responsibility for our safety and well-being, who will guarantee we have a workable plan for evacuation, uninterrupted business and health ?

This is Nationally, worldwide a massive structure with generational catastrophic outcomes and effects . I believe Helios has under played the danger, the risk.

If this proposal gets consent we could not safely live here and as such will move with our business out of the area, but the reality is we are stuck here as our property now has no saleable value.

The potential for harm and death is great. I implore the CODC to learn from international trend with large solar utility.

I oppose the proposed development

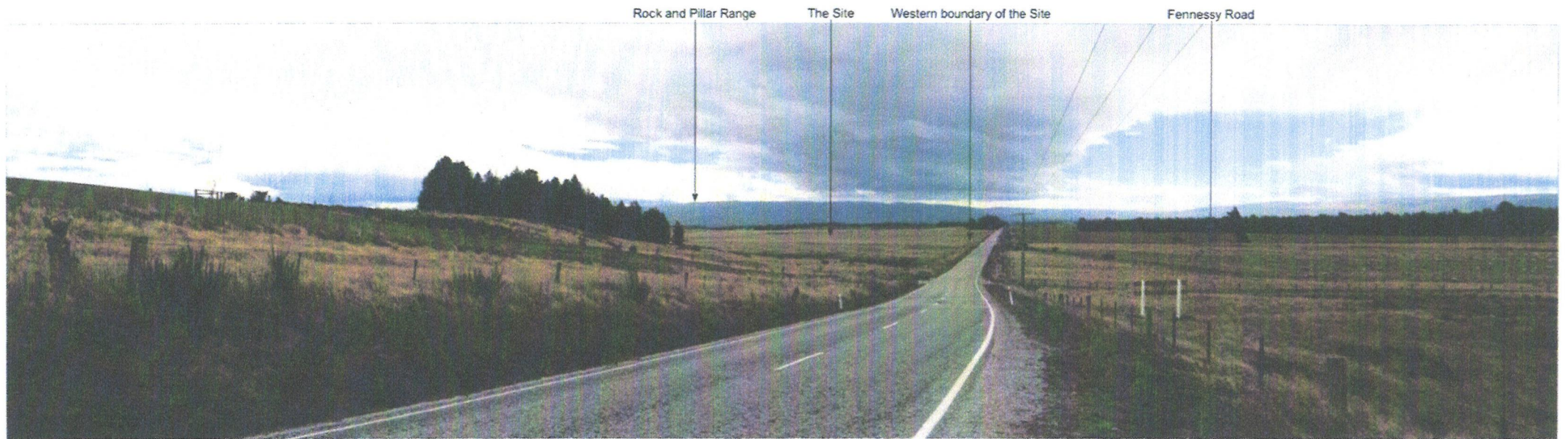
I wish to be heard in support of my submission

Kind Regards

Nigel Voice

photo 1





Site Context Photograph 8: View from Ranfurly-Naseby Road, approximately 135 metres northwest of the Site.

photo (2)

* View from SHW 85. / Unable to be screened.





Site Context Photograph 3: View from Ranfurly-Wedderburn Road (SH85), approximately 1.1 kilometres southwest of the Site.

Hawkdun Range

Bypass Rd



Private Viewpoint Photograph 24: View from Dwelling 5, approximately 1 kilometre southwest of the Site. The Site is largely screened by existing vegetation.

Approximate outline of the Site
Approximate extent of solar panel

- * view from lowest point on our property
- * Incorrect outline of site.
- * all deciduous trees.