

Directions/Minute of the Commissioner #1
Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

Pursuant to section 34A of the Resource Management Act 1991 (**RMA**), independent commissioner Mark St.Clair was appointed in July 2024 by Carterton District Council (**CDC**), to hear and determine the application lodged by Masterton Solar and Energy Storage Limited (the Applicant) for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

By way of background, the application was publicly notified on 3 July 2024 with the submission period closing on 30 July 2024. At the close of the submission period, three (3) submissions had been lodged. Two submissions in opposition, with the submitters not wishing to be heard and one submission in support from Mr W R Telford who wished to be heard. Mr Telford later withdrew his wish to be heard and similarly the Applicant indicated that it did not wish to be heard. With neither the Applicant nor the submitters wishing to be heard, the application moved to be considered without a hearing, in line with the Council's delegation manual, however, the decision making power was to remain with the independent hearing commissioner.

On 21 October 2024, I received via the Council, a request for acceptance of a late submission from Ms P Tancock, counsel for Mr P and Ms H Trotman, along with a copy of the late submission. Under the same cover I received a late submission from Mr P and Ms M Cowgill.

Similarly on 22 October 2024, I received via the Council, five further late submissions from Ms J Greathead, Mr I Hamilton and Ms R Whewell, Ms H Pocknall and Mr M Hewitt, Mr G and Ms R Fisher and Mr S MacArthur.

Copies of all the late submissions I have received to date, are included in **Attachment 1**.

At this stage, I record that I am required to firstly make a decision as to whether or not to accept the late submissions before considering any of the substantive matters raised in the submissions. Therefore, I have termed all the submissions lodged outside of the formal submission period of 3 July 2024 to 30 July 2024 as 'requests for acceptance of late submissions'.

For completeness I record that on 22 October 2024, CDC specifically appointed me under section 34A of the RMA to make a determination on the requests for acceptance of the late submissions.

I observe that the only late submission indicating that if others make a similar submission that they would consider presenting a joint case with them at a hearing, was from Mr P and Ms M Cowgill. It is unclear from the requests for acceptance of the late submissions if the submitters wish to be heard, which would necessitate a hearing. It is also unclear if these late submissions have been forwarded to the Applicant. This latter matter is effectively addressed by the annexure of those submissions being included in **Attachment 1**.

In terms of making a decision on a request for acceptance of a late submission, sections 20 and 37A of the RMA set out the relevant criteria for consideration. Should any party have a different view, they should indicate that view in their response as timetabled below.

The process and timetabling as to this matter are as follows:

1. Those parties filing requests for acceptance of late submissions are to advise the Commissioner as to whether or not they wish to be heard in support of their submission and that information is to be provided to Ms Suzanne Zabell (buildingadmin@cdc.govt.nz), Hearings' Administrator at CDC, by way of email, no later than **3pm on Tuesday 29 October 2024**.
2. The Commissioner requests that as soon as practicable following receipt of any such information received pursuant to Direction 1, CDC provides a copy to all other parties (late submitters and the Applicant) to these proceedings by way of email.
3. The Applicant is to advise the Commissioner as to their view as to the requests for acceptance of late submissions including reasons. That response is to be provided to Ms Suzanne Zabell (buildingadmin@cdc.govt.nz), Hearings' Administrator at CDC, by way of email, no later than **3pm on Monday 4 November 2024**.
4. The Commissioner requests that as soon as practicable following receipt of any such information received pursuant to Direction 3, CDC provides a copy to all other parties (late submitters and the Applicant) to these proceedings by way of email.
5. Those parties filing requests for acceptance of late submissions are to advise the Commissioner as to any matters in reply (a right of reply statement) to the Applicant's position (from Item 3) and that information is to be provided to Ms Suzanne Zabell (buildingadmin@cdc.govt.nz), Hearings' Administrator at CDC, by way of email, no later than **3pm on Monday 11 November 2024**.
6. The Commissioner requests that as soon as practicable following receipt of any such information received pursuant to Direction 5, CDC provides a copy to all other parties (late submitters and Applicant) to these proceedings by way of email.
7. On receipt of all the material set out in Steps 1 – 6 above, the Commissioner will then proceed to prepare a decision on whether or not the late submissions are accepted. Following that decision, the Commissioner will issue a further minute setting out the next steps.
8. Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 23 October 2024

SUBMISSION ON A NOTIFIED RESOURCE CONSENT APPLICATION

FORM 13 - Pursuant to Sections 95A, 95B, 95C, 96,
127(3), 137(5)(c) and 234(4) of the Resource Management Act 1991



1 of 2

Submitter

Name Maryann and Philip Cowgill

Contact Person
(If different from above)

Postal Address 524
Perrys Road,
Carterton

Home Phone

Cell Phone

Email

Details of the Proposal to which this Submission Relates

Name of Applicant RM240005 Masterton Solar & Energy Storage Limited

Address of Proposal 3954A State Highway 2, Waingawa, Carterton

Application No. RM240005

Description of Proposal The consent seeks to establish an agrivoltaics development (solar farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation.

Details of Submission

My submission:

☐ Supports the whole proposal

☒ Opposes the whole proposal

☐ Supports part of the proposal

☐ Opposes part of the proposal

In the event this application is subject to a Resource Consent Hearing. Do you wish to be heard in respect of your submission?

☐ Yes ☐ No

☒ If others make a similar submission I will consider presenting a joint case with them at the hearing

SUBMISSION ON A NOTIFIED RESOURCE CONSENT APPLICATION

FORM 13 - Pursuant to Sections 95A, 95B, 95C, 96, 127(3), 137(5)(c) and 234(4) of the Resource Management Act 1991



2 of 2

Submission Statement

The proposed Masterton Solar & Energy Storage Limited solar farm has recently come to our attention - we were not aware this Application had been publicly notified, therefore we respectfully ask for the following statement to be recorded as a late submission.

Replacing beautiful views of productive land with multiple solar farms will destroy the fabric of the Taratahi Plains.

- Combining the six 'tabled' consents and potential solar farm developments, more than 800,000 solar panels will cover 830 hectares of land spanning South Wairarapa, Carterton and Masterton. (2)
 - Four of the six solar farms will be clustered within 5-10 minutes' drive of each other, covering 405 hectares of mostly prime land. This means the whole area in which we live along with many other residents, will be surrounded by solar panels.
 - Multiple solar farm sites will mean unacceptable amplification of noise, road and on-site construction traffic, loss of visual amenity and reduced enjoyment of lifestyle for local residents.
 - Local property values will fall if surrounded by solar farms with associated construction/industrial activity. If we decided to sell our property we would be greatly disadvantaged due to a small pool of people who would be agreeable to living alongside an industrial solar park -even more so in the first three years of construction.
- The NZ Clean Energy Solar Farm is to be located on a site across the road from the Harmony Energy application, which is across the road from our Perrys Road property. The Clean Energy Solar Farm will be visible from our property which will diminish our rural outlook.
- Construction times of the 4 'tabled' solar projects will likely coincide which will create high levels of construction traffic and associated noise on Cornwall, Hughes Line, East Taratahi and Perrys Roads. This will have major negative impact on rural tranquility and lifestyle enjoyment by local residents. Heavy use of all solar farm access routes will hasten the decline of local roads, with the potential to create an even bigger dust issue for unsealed Perrys Road.

The cumulative effects of 4 solar farms in close proximity to each other creates unfair pressure and stress on impacted local residents.

Decision you want the Council to make:

☐ Grant the Consent ☒ Decline the Consent ☐ Grant the Consent with Conditions

Signature

To be signed by the submitter or person authorised to sign on behalf of the submitter.

Mr Congill

Name *Maryann Congill*

Date *21/10/2024*

Important notes for the Submitter

- In accordance with the Privacy Act 1993, submissions will be made available for viewing by Council and members of the public.
- This form is for your convenience only. You may make a submission that addresses the points above in a letter or other suitable format.
- Submissions will not be returned, so please keep a copy.
- A copy of your submission must be sent to both Council and to the applicant.

21 October 2024

Mr. Mark St Clair
Commissioner

Dear Mr St Clair

RE: RM 20004- Masterton Solar and Energy Storage Ltd/ NZ Clean Energy application

Please find **enclosed** a submission from my clients Mr and Mrs Trotman who live at 535 Perrys Road very near to the site of this application. Mr and Mrs Trotman only learnt of the fact that a resource consent had been lodged late on the evening of Wednesday 16th October. I understand many of their neighbours who live in the vicinity are in the same position which is unsurprising given the general response to notification. My clients are currently considering whether Carterton District Council's public notification of the application was deficient, which may be the case given the general lack of awareness of the application in the community by those including immediate neighbours who stand to be impacted by it.

I would be grateful if you could consider accepting this submission (and those of others in a similar situation to the Trotman's) as a late submission. They have had little chance to digest the application but in the interests of time have attempted to articulate their concerns.

I also draw your attention to the Fast Track Panels Harmony Consent decision and Masterton Solar Energy decision both recently granted that will require a detailed consideration of cumulative effects given the potential for three solar farms in extremely proximity to each other.

Yours sincerely



Phernne Tancock
Barrister

PHERNNE TANCOCK LLB

BARRISTER

Harbour Chambers

Level 1

Wellington Free Ambulance Building

5 Cable Street

PO Box 10 242

Wellington

New Zealand

21st October 2024

Attention: Mark St Clair

Re: RM20004 – Masterton Solar & Energy Storage Ltd t/a NZ Clean Energy Ltd

With reference to the above application, we would like to put in a late submission, due to the fact we were not aware the application had been publicly notified.

We are an affected party for the Harmony Energy Solar Farm, which is adjacent to the above site, which the EPA approved on 23rd September 2024 subject to conditions, however an appeal has been lodged by Forest and Bird on 14th October 2024.

It has also come to our attention that an application by Masterton Solar Farm Ltd at 51, 99 & 107 Cornwall Road which is also adjacent to this site was approved on 1st August 2024.

Currently there are 6 tabled consents and potential solar farm applications in the South Wairarapa, Carterton & Masterton area covering approximately 830 hectares of land.

In our area alone we now have 3 Solar Farms (2 consented) bordering each other. How can such a high density of solar farms be allowed? Has anyone taken into consideration the cumulative effects that this will bring on Hood Aerodrome and the impacted residents of the East Taratahi community?

Our concerns;

1. The effects of this application and the Cumulative impact of the application on:
 - a. Noise;
 - b. Traffic;
 - c. Dust;
 - d. Loss of visual amenity & enjoyment of our lifestyle;
 - e. Increased Fire Risks;
 - f. Negative impact on residential property values and liken us to living in an industrial park;
 - g. Amenity effects;
 - h. Visual effects and lack of appropriate visual mitigation and setbacks.
 - i. Lack of community liaison group and specifics as to what is proposed.
 - j. Construction effects.
2. Loss of productive agricultural land, including inconsistency with the NPS-FM/ NES-F and NPS-HPL.
3. We have a natural water race which flows from Hughes Line through our property
 - a. What impact will the water run off an erosion have on this?
4. During the construction phase there is going to be a considerable increase in traffic this is going to have a noticeable impact on the residents of Cornwall Road, Hughes Line and Perrys Road, and weaken our roads even more. Why is the access not proposed off SH2 to limit the effects on local residents?
5. Setback – 10 metres including perimeter road and planting is insufficient

- a. especially near the wetlands and water race areas, see Forest & Bird Appeal lodged. Looking at the documentation it appears they have not been consulted.
 - b. Depth of plantings across all areas need to be at least 4 metres wide - to be successful in blocking visual effect of solar panels, construction activity and as a noise barrier.
 - c. Planting zones need to be at least 50 metres from road boundaries, especially where the solar farm adjoins a neighbour's boundary. 'Setback' refers to meterage between solar panels and road boundary. A narrow setback distance will mean construction activity and associated levels of noise/dust and solar panel noise will have greater adverse impact on nearby community dwellers than if setback is at 50 metres.
6. Hours of work during construction application states 7am to 7pm, this should be 7am to 5pm and no construction work at weekends or public holidays.
 7. What effects will the outdoor lighting have on the surrounding environment and neighbours?
 8. No consideration of dust and impact on drinking water collected from neighbours roofs.
 9. Solar panels and inverters interfere with internet and cellphone reception, this will cause issues for surrounding residents? It is adequate at the moment but could not withstand a reduction in signal strength.
 10. Overseas in Australia there is evidence of significant insurance costs for neighbouring properties. There should be a condition requiring the consent holder to negotiate a "neighbour agreement" with neighbouring landowners that will set out the rights of both parties and recognise the possible impacts of the project on the neighbours. There should be further requirements included in the consent condition including:
 11. Large scale solar farms are new to New Zealand with no understanding or experience of long-term effects on the environment and community. With the solar farms life expectancy being upto 35 years into the future, the proposed conditions don't clearly mention a long-term remedial plan for the community should anything go wrong. It causes considerable stress to the residents with a lot of unknowns.
 - What remedial action plan was considered by the consenting authority, local council & regional council if the proposed outcomes/limitations of the project are not met by the applicant?
 - The consenting authority, local council & regional council should notify the immediate neighbours/community of the solar farm as to what their recourse plan is if the applicant doesn't meet their obligations (upkeep of the solar farm, noise limitations, glint and glare effects, proposed landscaping to name a few) under the consent and how the consenting authority, local

There needs to be a National Policy Statement on solar farm applications providing minimum standard evidence-based conditions that establish where they can be located and the conditions/regulations the consents operate under.

The Environment Court is reconvening its hearing on 12th November 2024 to decide on the Far North Solar Farm proposal in Greytown. This case has the potential to set a precedent for the conditions of resource consent for solar farm applications nationally and ask that you wait for this decision.

We are concerned that due to the applications being lodged close together in time and located in the same area that these consent applications have failed to consider cumulative effects of

both construction and operation of the Solar Farms. We are also concerned at the lack of regional consents the ecology and potential impact on inland natural wetlands on the site there does not appear to proper assessment of the district plan, GWRC Natural Resources Plan, NPS or Part 2 of the RMA, in particular in terms of amenity effects and ecology.

We have had very little time to consider conditions, do not believe that what has been suggested is adequate, but at a very absolute minimum seek that the conditions on the Harmony Fast Track application imposed by the EPA Panel are used as a starting point and adopted based on the comments we have made set out above, and with further modifications as needed to respond to cumulative effects.

Thank you for your time and consideration.

Yours sincerely

Paul & Helen Trotman

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	G & R Fisher
Address:	154 East Taratahi Road, RD7, Masterton, 5887
Cell Phone:	[REDACTED]
Email:	[REDACTED]

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We were not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so we are appreciative of the chance to make this late submission.
3. We have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. We endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown as their case has the potential to set a precedent for the consenting of solar farms nationally.

Guy and Rebecca Fisher

22 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Helen Pocknall and Mark Hewitt
Address:	518 Perrys Rd, RD7, Masterton 5887
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We were not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so we are appreciative of the chance to make this late submission.
3. We have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. We endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown as their case has the potential to set a precedent for the consenting of solar farms nationally.

Helen Pocknall and Mark Hewitt

22nd October 2024

22 October 2024

Mr. Mark St Clair
Commissioner

Dear Sir

Re: RM 240005 - Masterton Solar and Energy Storage Ltd / NZ Clean Energy Consent Application

We write to you in respect of the above consent applications.

We reside near to the site now consented, by the Fast Track Expert Consenting Panel, for the Harmony Solar Energy Farm.

We read with some dismay the progress through Carterton District Council (CDC) Planning processes of the additional consents for the proposed solar farms at 51, 99 and 107 Cornwall Road.

While we acknowledge that there was a public presentation by NZ Clean Energy in November last year, which we attended we were surprised by the lack of focused public communication by CDC in progressing the above consent applications.

We only came to know that it had been tabled and approved to the next stage through a chance comment during a discussion with one of the CDC Planning staff. Expectation that one would daily consult the CDC web pages to identify if a consent had been tabled or not is somewhat naive. As private individuals we do not have the resources to fund planning monitors to check on progress and we cannot recall ever seeing any notifications in any community newspapers or letter box drops.

Due to this failure in communication we respectfully ask that you take into consideration our points set out below.

We are not against one commercial scale solar farm in the East Taratahi area. The governments need to improve energy generation and resiliency is well known. We ourselves live entirely off the grid despite being only a few kilometres from Masterton and Carterton.

Our concern relates to the proliferation of Solar Farms in this area. Further we perceive that with the Harmony application being managed under one piece of legislation, the remaining applications being managed by the local Council Planning processes and all applications being progressed in quick succession, there has been inadequate, if any, consideration of cumulative effects on the environmental, economic and social impact all of these will have. We do not perceive that one overall body has holistically reviewed the totality of this.

Currently we are aware of six tabled consents and potential Solar Farm applications within the Greater Wairarapa area. These would, if all progressed consume, upward of 800 hectares of pastoral land. Through our farming connections we have also been made aware of several other discussions reportedly taking place with farmers in the East and West Taratahi area by companies seeking to access additional land use for such purposes.

Since the start of 2024 East Taratahi alone has seen a Covid 19 Fast Track application receive consent for use of 260 hectares and now CDC are progressing applications for a further 172 hectares. Adjacent to our own boundaries the one remaining large pastoral farm may also be under discussion and if it is progressed a further 132 hectares would be lost to pastoral farming.

We do not accept that our local area should be shouldering an excessive burden for the county at the expense of prime pastoral land. One commercial scale Solar Farm we can accept, the

proliferation just because the land is flat and conveniently placed to a sub station we cannot. This is not the only place that you can construct a Solar farm.

The immediate concerns that we hold would relate to:

- Several years of construction noise.
- Dust generation from on going construction works and the potential impact on roof collected drinking water.
- Increased traffic on the rural roading network.
- Introduction of industrial classes of fire risks into the rural environment
- Amenity and visual effects as we will have to drive through a large “industrial area” to access a small island of rural properties.
- Loss of productive pastoral land. The most suitable place for one large Solar Farm in this area was in our view the NZ Clean Energy site adjacent to SH2 as it bordered a State Highway, bordered an industrial zoned area at Waingawa and was to be constructed on land that was approximately 50% LUC 4 due to prior contamination from industry. This argument however was not accepted by the Expert Consenting Panel who of course had to address and only address the application before them.
- The loss of employment for rural contractors and support services who work the land, tend stock and process the outputs of the land as Solar Farms employ very few personnel even in the back room support area.
- Inconsistency with NPS-FM / NES-F and NPS-HPL.
- The water races that we fund and at certain times have to draw water from for stock may be affected by erosion due to upstream earthworks during construction.
- The noted proximity of 107 Cornwall Road to the Hood Aerodrome runway.
- The potential signal degradation of our WiFi as we rely on wireless beamed from adjacent hills as there is no cable systems in the area and the 4G network in this area is very patchy.

In conclusion, had we been aware of the application being notified and open for submissions we would have addressed relevant areas in detail as we did in the Harmony application. As we were not aware we offer the above few points. We do not accept that the process at 51, 99 and 107 Cornwall Road has been adequate but as a minimum we respectfully request that in your deliberations you consider the above few points and in particular consider the broader issue of the cumulative effect in environmental, economic and social aspects of turning this land area into an large industrial site.

Thank you for your consideration.

Yours sincerely

Iain Hamilton and Rosemary Whewell

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Jill Greathead
Address:	3 Devon Lane, Carterton
Cell Phone:	██████████
Email:	██████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Carterton and live 8 kms from site of the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. This neighbourhood have not been directly consulted on this proposal.
3. I am a lay person but as the volunteer coordinator for the Greytown Solar Farm Submitter's Group at the Environment Court for the past year have gained an understanding of the environmental effects of solar farm developments.
4. I have read the submission of Paul and Helen Trotman and endorse their concerns.
5. In my submission I propose to raise additional implications for impacted neighbours that have been submitted to the Environment Court for the Greytown Solar Farm hearing on 12 November 2024.
6. In my submission I will focus on areas that I feel need more exploration. I will refer to documents that have been filed to the Environment Court.

Setbacks from dwellings, boundaries and roads

1. Setbacks are an important mitigation for solar farm development.

Please refer:

[s274 Rod Jay submission](#) - Paragraphs 3 to 5, 11. In Appendix 1 please refer to paragraph 3

[s274 Richard Schofield submission](#) - paragraphs 13 – 19

[s274 Aaron Woodcock submission](#) - paragraphs 5 – 9

[s274 Rachael Hughes and Davida McDonald](#) - paragraphs 62 - 69

Landscape Mitigation plan

2. Adequate landscaping is another important mitigation. This is an area where onsite visits are important to work with adjacent landowners.

Please refer:

[Expert Evidence of Paul Smith](#)

[Landscape Design Package](#)

[Native Plant Research List](#)

Community Liaison Group (CLG) and complaints register

3. Another important mitigation is operating a CLG throughout the lifetime of the consent.

Please refer:

[s274 Rod Jay submission](#) - Appendix 1 - paragraphs 7 to 10.

Consultation

4. I am impressed with the consultation that NZ Clean Energy carried out prior to the 'public notification' of this proposal. I believe this should have included the East Taratahi rural neighbourhood particularly because of the fast-tracked Harmony Energy proposal which would be part of your decision on cumulative effects.
5. The East Taratahi rural neighbourhood of Cornwall/ Perrys and East Taratahi Roads could have been notified by a letterbox drop as this community use the local road network and will be impacted during the construction phase.

Cumulative effects

6. With the 20ha Masterton Solar Farm consented and with the Harmony Energy Carterton under appeal, could you please assess the cumulative effects of this proposal taking these two proposals into consideration.

Impacts for Hood Aerodrome


7. 'Glint and glare' and Radio Frequency Interference (RFI) are important considerations with the Hood aerodrome close by.
8. Please see below the response from the Civil Aviation Authority asking whether the CAA recognises the hazard potential for glint and glare from a solar farm from an aviation perspective.

9. The CAA suggest consultation with a wide audience, and the completion of a risk workshop.

This approach could also include EMC (Electromagnetic compatibility) issues

RE: Solar farms in the vicinity of a licensed aero drome of airspace

 wslo@xtra.co.nz
To: 'Aerodromes'
Cc: 'Jill Greathead'

 You forwarded this message on 17/10/2024 8:33 am.

 Reply  Reply All  Forward 

Tue 8/10/2024 4:15 pm

From: Aerodromes <aerodromes@caa.govt.nz>
Sent: Tuesday, 8 October 2024 8:59 AM
To: wslo@xtra.co.nz
Cc: Aerodromes <aerodromes@caa.govt.nz>; jillgreathead@gmail.com
Subject: RE: Solar farms in the vicinity of a licensed aero drome of airspace

Hi Bill,

CAA is aware of the potential hazard that glint and glare may pose from a solar farm.

CAA would recommend that any solar farm developers consider the impact of their development on aviation safety. One method of approaching this challenge would be through consultation with a wide audience, and the completion of a risk workshop. This would give potentially affected stakeholders an opportunity to express any perceived or material aviation-related safety concerns associated with the location of the proposed solar farm, with the proposed solar farm operator. The stakeholders would be better informed if a glint and glare assessment specific to the proposed location has been provided. Any safety concerns should be documented and assessed, and managed by the solar farm owner, or accountable person, to the extent to which the person has, or would reasonably be expected to have, the ability to influence and control the matter to which the risks relate.

Kind Regards

Paul Tench | Technical Specialist (Aerodromes) – Aeronautical Services

Civil Aviation Authority of New Zealand  Aviation Security Service
Te Mana Rerangi Tūmatanui o Aotearoa / Kaiwhakamaru Rerangi
Aviation Security and Infrastructure | Aeronautical Services
paul.tench@caa.govt.nz

 Level 15, Asteron Centre, 55 Featherston Street, PO Box 3555, Wellington, 6011 New Zealand
 Please consider the environment before printing this e-mail



Please refer:

[Expert Evidence Jeremy Verity on Radio Frequency Interference](#)

[s274 Richard Schofield submission](#) - paragraphs 33- 44

[Expert Evidence Nicholas Logan – Glint and Glare](#)

[s274 Rachael Hughes and Davida McDonald](#) - paragraphs 35 - 44

Fire Risk Assessment

10. In the minute dated 9 July Judge Semple requested further information to assist the Court's determination on Fire Risk Assessment

11. *Please refer:*

[Expert Evidence of Hamish Denize](#)

Soil and water discharges and contamination

12. In the [minute dated 9 July](#) Judge Semple requested further information to assist the Court's determination on Contamination Risk Assessment.

Please refer:

[Expert Evidence of Ray Henderson](#)

Economic impact on the South Wairarapa electricity users

13. There is a limited capacity connecting to the Wairarapa transmission lines.

Please refer:

[s274 Rachael Hughes and Davida McDonald](#) – Paragraphs 21 - 34

Ecological and Biodiversity effects

14. There are significant areas of wetlands and water bodies in this location.

Please refer:

[Notice of Appeal for the Harmony Energy Solar Farm](#)

Conditions Set

15. Conditions should protect the neighbours of solar farm developments. Paul and Helen Trotman's submission asked for you to "at a very absolute minimum seek that the conditions on the Harmony Fast Track application imposed by the EPA Panel are used as a starting point and adopted based on the comments we have made set out above, and with further modifications as needed to respond to cumulative effects".

I would like you to take cognizance of the Final Decision in the Greytown Solar Farm application as you consider this application.

Conclusion

16. The location of this solar farm affects fewer neighbours than the Harmony Energy Carterton application, however I endorse Helen and Paul Trotman's request to delay the decision of this application until the Far North Solar Farm decision has been made. This proposal is the first solar farm proposal to be heard in the Environment Court and we anticipate it has the potential to act as a precedent for future conditions of resource consent in New Zealand for this land use activity.

17. Solar farms are a new introduction to New Zealand. There is a lot of international experience and evidence that we can utilise as we consent them.

Please refer to [Enabling a Community Powered Energy Transition.pdf](#) dated March 2024 from The Nature Conservancy which examines good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits.

Jill Greathead

22 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Steve MacArthur
Address:	534 Perry's Road, RD7 Masterton
Cell Phone:	██████████
Email:	██████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We/I am a resident of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We/I was not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so we/I am appreciative of the chance to make this late submission.
3. We/I have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. We/I endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We/I endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We/I request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown as their case has the potential to set a precedent for the consenting of solar farms nationally.

Steve MacArthur

22nd October 2024

Directions/Minute of the Commissioner #2

Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

Further to Minute #1 issued on 23 October 2024, I received via the Council on 25 October 2024, two requests for acceptance of a late submission from Mr M and Ms J Atkinson and Mr P Issac both dated 25 October 2024.

Copies of those late submissions are included in **Attachment 1**.

I note that Minute #1 sets out timetabling for parties requesting acceptance of late submissions to advise whether or not they wish to be heard in support of their submission, which are to be sent to the Hearing Administrator by **3pm on Tuesday 29 October 2024**. As such I instructed Council staff to send Minute #1 to the Mr M and Ms J Atkinson and Mr P Issac and request if they could meet that timetable. I record that Mr Issac stated within his submission that he wished to be heard so that aspect is addressed. Mr and Ms Atkinson advised in their covering email that they would speak if others did and told Council staff that they would also advise on their wish to be heard or not, as required by the timetabling in Minute #1. In addition, I instructed Council staff to send copies of the two requested late submissions to the Applicant.

This morning, 29 October 2024, I received via Council, a further ten (10) requests for the acceptance of a late submission, with all of the requests advising that if the application proceeded to hearing, that they wished to be heard. Copies of those submissions are included in **Attachment 2**. Again, I instructed Council staff to send Minute #1 to those ten parties and that copies of the requested to be accepted late submissions be sent to the Applicant.

The process and timetabling as set out in Minute #1, remains unchanged. Those parties who have already indicated that they wished to be heard in their submission, are not required to repeat that request to the Commissioner, by 3pm today as set out in Minute #1 Item #1.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 29 October 2024

ATTACHMENT 1 – Copies of Late Submissions from 25 October 2024

ATTACHMENT 2 – Copies of Late Submissions from 29 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Mark & Jannine Atkinson
Address:	142 East Taratahi Road, RD 7, Masterton, 5887.
Cell Phone:	
Email:	

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We were not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so we are appreciative of the chance to make this late submission.
3. We have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. We endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown has their case has the potential to set a precedent for the consenting of solar farms nationally.

Mark & Jannine Atkinson

25/10/2025

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Peter Isaac
Address:	47 Cross Line, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 21 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. I understand that this neighbourhood have not been directly consulted on this proposal.
3. I have 60 years' experience as a practitioner of international trade and of commenting on it. It was this that led me as chairman of the South Wairarapa Whenua Advisory Group (SWWAG) to make a submission to the Wairarapa Combined District Plan Panel when it convened in Carterton this month. I sought to draw attention to what amounts to a high productivity agricultural district becoming an experimental zone for a prototype dispersed electrochemical generating industry model as yet untested.
4. My involvement with this SWWAG cautionary group came about when it became obvious that the number of these schemes would multiply as the access became evident to the low-lying district substations following the eastern North – South high tension transmission.
5. As an s274 submitter for the Greytown Solar Farm proposal in the Environment Court I have gained an understanding of the environmental effects of solar farm developments over the past year.
6. I have read the submissions of Paul and Helen Trotman and Jill Greathead.

7. I endorse these concerns to be used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
8. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the EPA have made their final decision for the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
9. In my submission I propose to raise concerns about:
 - a. Concentration of these schemes the Wairarapa valley
 - b. Negative effects on the wine industry
 - c. Transferable consents
 - d. Long term environmental effects of batteries
 - e. Long term effects of pasture-based power generation
 - f. Potential of future compounding climatic extremes

Concentration of solar farm developments in the Wairarapa valley

10. An inducement to this now evident concentration of district schemes is that the foreign promoters have encountered considerable resistance in Australia. The two kilometre setback required between such schemes and neighbourhoods is but one example.
11. These schemes as they stand for the South Wairarapa and there are now six of them are unusual in that they involve the placement on low-laying pasture of heavy duty electrochemical equipment which by definition contain varieties of chemicals of enduring presence and activity which will linger and disperse in the underlying soil and its associated groundwaters.
12. For a number of reasons connected with policies emanating in the northern hemisphere there is a reluctance to challenge let alone examine the longer term damage inflicted by such structures on the localised economies of their districts of installation.

Negative effects on the wine industry

13. At the Wairarapa Combined District Draft Plan hearing this month, I cited the wine industry as one to be negatively affected in the medium to longer term and I did so because it combines the valley's tourist sector as well as the premium end of the primary sector. As unpalatable as it may seem now this sector is the one most vulnerable to export barriers raised on any premise that the vineyards are sharing the same water courses as utility-sized pasture-located generating plants.

Transferable consents

14. There remains too a reluctance to discuss or confront the role of these schemes in relation to their front-end value in terms of their being Consented. These offsetting values in terms of the forestry sector are now understood to contain both unforeseen and un-discussable hazards. The solar scheme Consents are transferrable and thus control and thus responsibility can change over the lifetime of the project. This is formally recognised by their being no sureties, bonds, guarantees required at the outset, let alone near the ending of the schemes profitable life span and at the point at which it becomes a liability to the owners in terms of disposal and remediation.

Long term environmental effects of batteries

15. Longer term effects on the environment are characterised in a negative way by the absence of information centred on the batteries that are required by these installations in order to offset their own drawback of intermittency. This in turn is magnified because such installations are actually designed for dry, arid zones which by definition absorb the most sunlight. It is only the convenience of the flat land substations that counters the restricted hours of sunlight.

Long term effects of pasture-based power generation

16. The South Wairarapa has been host to a number of new primary industries. Deer and goats are two examples and both in the event proved to be disappointing in the longer term. Sponsors were able to switch to other productive areas and do so rapidly because the impact on the pasture was minimal if it existed at all. In contrast the switch to pasture-based power generation is transformative imposing long term exposure to a single industry.

Potential of future compounding climatic extremes

17. A reason advanced for the urgency of these installations is that government agencies insist that there will be compounding climatic extremes. If so, these temporary installations which by definition present the most extended surface to the elements are vulnerable to such extremes positioned as they are in the low-lying flood-prone plains bisected by five rivers.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of my submission.**

Peter Issac

25 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Carolina Neerincx
Address:	260 Moroa Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 24 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. We understand this neighbourhood have not been directly consulted on this proposal.
3. I hold a Bachelor of Science (Netherlands), majoring in Rural Development Studies, and a Diploma in Development Studies from Massey University. My thesis focused on the different community participation techniques (passive and active) in rural development projects and their effects on project adoption.

4. I am an s274 submitter for the Greytown Solar Farm proposal in the Environment Court and have gained an understanding of the environmental effects of solar farm developments over the past year.
5. I have read the submissions of Paul and Helen Trotman, Jill Greathead, Richard Schofield, Monique Leerschool, Rachel Hughes and Davida Ann McDonald. I have also read Forest and Birds original submission on the neighbouring Harmony Energy application. I endorse all the issues and concerns raised.
6. The concerns raised are fundamental to achieving the right balance between solar power generation and respect for the environment and the community. These issues provide a starting point for further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.
7. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
8. In my submission I am submitting on my experience associated with the Far North Solar proposal in Greytown: specifically with regards to overseas guidelines for engaging stakeholders that foster collaboration and promote socioeconomic benefit and noise/acoustics.

Overseas for engaging stakeholders that foster collaboration and promote socio economic benefit

9. I have read [Enabling a Community-Powered Energy Transition](#) published in March 2024 by the Nature Conservancy.
10. It “seeks to improve understanding of the relationships between communities and the developers of utility-scale renewable energy projects, and how effective and meaningful interaction can benefit both parties. To this end, the paper identifies existing good practices for engaging communities in project and policy processes and presents a typology of potential community benefits. The purpose of this paper is to start a conversation about the benefits and opportunities of a shared understanding across the renewable energy industry and European national, regional, and municipal jurisdictions over community engagement and community benefits from renewable energy projects. By offering insights into effective community engagement practices and presenting a preliminary classification

of community benefits, this white paper will serve as a valuable resource for developers of renewable energy projects, communities that consider hosting them, and decision-makers at local, regional, national and EU level”.

Active participation

11. Active participation is when community members are involved in some aspects of the planning, implementation, or evaluation of a project or intervention, but still have limited control or influence over the process and outcomes. This type of participation is often used to enhance the efficiency or effectiveness of the project or intervention, by tapping into the local knowledge, skills, or resources of the community. Active participation can be seen in community organizing models that are collaborative, participatory, or empowering, where the community is seen as a stakeholder or a contributor to the project or intervention, but not necessarily as a co-producer or a co-owner of the results.
12. “A successful energy transition hinges on local engagement and broader public support for renewables. For project developers, finding ways to effectively engage with the communities that will be affected by new and expanding renewable energy projects is crucial. It is only through engaging with communities and demonstrating the benefits that renewable energy projects can deliver to them – without downplaying the potential disruption they may cause – that projects will be able to obtain the so-called social licence to operate. Without this, they can be subject to extensive opposition, delays, and even cancellations, damaging the companies’ profitability and reputation, and slowing down the energy transition”¹.

“When managed well, clean power infrastructure development presents a considerable opportunity to create significant business value as well as wider system value for society, the economy and the environment”

This white paper seeks to improve understanding of the relationships between communities and the developers of utility-scale renewable energy projects, and how effective and meaningful interaction can benefit both parties. To this end, the paper identifies existing good practices for engaging communities in project and policy processes and presents a typology of potential community benefits.

As the number of new projects accelerates, these concerns will only intensify. This trend is evident across many European countries, including the UK. While there is overarching

¹ Enabling a Community-Powered Energy Transition: Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits. https://www.nature.org/content/dam/tnc/nature/en/documents/Enabling_a_Community-Powered_Energy_Transition.pdf

support for renewable projects, there are valid concerns by local communities regarding the implementation of these projects. To meaningfully address this discord, it is essential to move beyond the broad and reductive descriptions of NIMBY (Not in My Back Yard) and BANANA (Build Absolutely Nothing Anywhere Near Anything) to understand the multi-faceted and valid reasons why citizens can oppose renewable energy projects.²⁵ These reasons may centre around (one or more of) the following:

1. Social impacts – Concerns related to fair participation and opportunities for meaningful consultation and representation in the decision-making process. These concerns may relate to disregard for sovereignty and self-determination as well as threats to sites of cultural, spiritual, and ancestral significance and way of life, especially among Indigenous communities. Concerns can also relate to health and safety risks, real or perceived.

2. Economic impacts – Concerns related to monetary impacts such as loss of property value and restricted economic activities (e.g., loss of revenues from agriculture or tourism). Economic concerns can also relate to adverse effects on aesthetics as well as access to sites for recreational purposes, which could affect income from tourism.²⁶

3. Environmental impacts – Concerns related to threats to endangered species, protection of natural ecosystems and biodiversity. Environmental concerns can get amplified if communities have a direct dependence on those ecosystems for their livelihoods or if the areas concerned have cultural significance.²⁷

4. Impacts due to institutional uncertainty, complexity, or conflict – Apprehensions can arise from the absence of legal or regulatory frameworks that sufficiently acknowledge, tackle, and safeguard the interests of communities, including land tenure. These concerns may be rooted in uncertainty, a lack of comprehension, a sense of powerlessness, or misinformation. At times, issues related to a community's right to self-determination are exacerbated by conflicting interests regarding jurisdictional authority, involving local, regional, federal, state, or even intergovernmental bodies.

13. This last point (4) has been our main reason to oppose the Greytown Solar Farm proposal. Our main worry over the past few years has been the lack of a national regulatory framework that sufficiently acknowledges, tackles, and protects the interests of communities. Just like the Australian Energy Infrastructure Commissioner, we do not believe individual District Councils can best safeguard these issues on a case by case basis.

14. A simple example is appropriate setbacks. The South Australian government has clear-cut setbacks for renewable energy infrastructure. This prevents uncertainty, misinformation, and a sense of powerlessness.






Generation Capacity	Approximate Size of Array	Setback from Adjoining Land Boundary	Setback from Conservation Areas	Setback from Township, Rural Settlement, Rural Neighbourhood and Rural Living Zones
50MW+	80ha+	30m	500m	2km
10MW<50MW	16ha-<80ha	25m	500m	1.5km
5MW<10MW	8ha to <16ha	20m	500m	1km
1MW<5MW	1.6ha to <8ha	15m	500m	500m
100kW<1MW	0.5ha<1.6ha	10m	500m	100m

15. Our Environment Court process has highlighted that large-scale solar projects are still in their infancy in New Zealand. It is also well known that more and bigger utility-scale renewable energy projects, including solar plants, are in the pipeline for construction in New Zealand over the next few years. This is the time to think about developing and implementing a National Guidelines/Framework for renewable energy projects that will lead to the successful adoption of renewable energy projects.

16. The website of the Australian Energy Infrastructure Commissioner ([Australian Energy Infrastructure Commissioner - Observations and Recommendations](#)) identifies and describes issues concerning the governance, development, and operation of wind farms, solar farms, and energy storage facilities. The Commissioner observed significant variety in the level of community engagement by developers to date (2022) and recommends a variety of tools on the subject of Neighbour Consultation and Agreements, as well as Community Engagement. The main goal of these tools is to improve the effectiveness of community consultation and engagement resulting in more successful adoption of renewable energy projects.

Please see Table 1 below for enhancing community engagement from informing to empowering.

Table 1: Enhancing community engagement: From informing to empowering

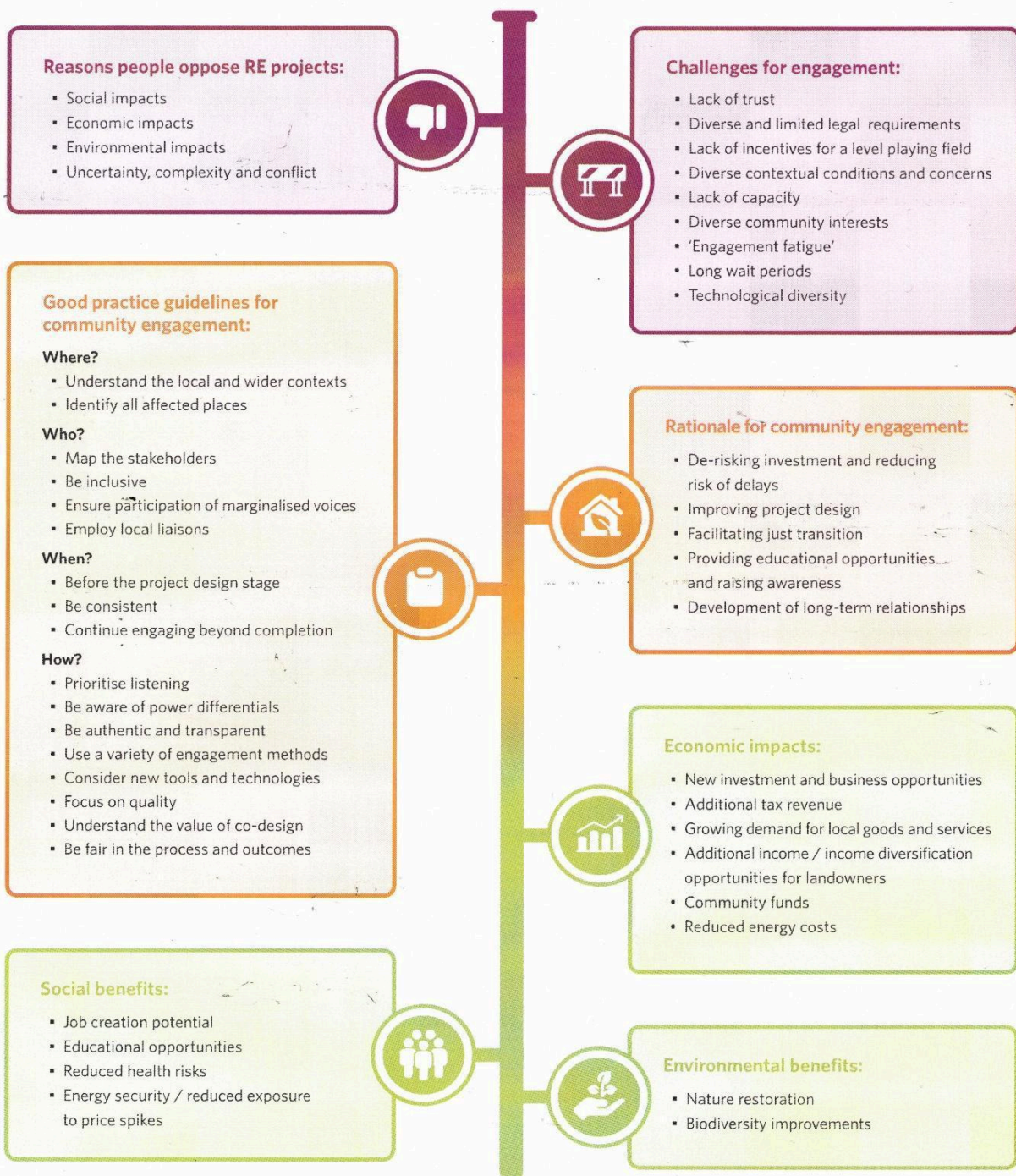
Participation Level	 Inform	 Consult	 Involve	 Collaborate	 Empower
Community Engagement Objective	Provide balanced and objective information assist the community in understanding all aspects of the project, including possible problems/issues.	Obtain feedback from the community on plans, options and/or decisions.	Work directly with the community throughout all stages of the project ensure community concerns and aspirations are consistently understood and considered	Partner with the community in each aspect of planning, development and decision making, including the development of alternatives and the identification of the preferred solution.	Community to co-lead the development of the renewable energy project place decision making involves the community directly.
Community Engagement Commitment	Keep the community informed through all stages of development, including issues and delays.	Keep the community informed listen and acknowledge suggestions and concerns provide feedback on how input influenced the decision.	Work with the community to ensure concerns and aspirations are directly reflected in the alternatives developed. Provide feedback on how input influenced the decision.	Look to the community for direct advice and innovation in formulating solutions. Incorporate advice and recommendations into decisions to the maximum extent possible.	Community is involved in the design and no decisions are taken without community buy-in.
Community Engagement Outcome	Securing a suitable site to install the renewable energy facility. Gaining planning permission. Meeting compliance regulations.	Minimising objections. Effectively managing complaints. Good stakeholder relations. A level of community awareness and trust in the project.	Long-term broad local social acceptance and knowledge of the project. Strengthened local relationships and trust. Local advocates for renewable energy.	Broad community participation, support and awareness. Some sense of local ownership. Greater community benefit. Strong local relationships and trust. Timely development and easier planning approval. Some sharing of benefits beyond investors.	Community ownership in the project. (both literal and metaphorical). Community benefits justly and equitably shared. Citizen juries.
Example Techniques	Face-to-face meetings with key stakeholders (e.g. Parish councils). Door-knocking in the closest or most affected neighbourhoods. Press release to local media and advert in local paper. Setting up a website with clear contact information, including an opportunity to subscribe to updates or request a phone call or meeting with a representative from the developer. Posters on noticeboards, village halls, community venues, post offices, pubs.	In-person exhibitions and online public briefing events with meeting spaces for private discussions to address individuals' concerns. Attendance at community meetings and events to follow-up on key topics. Local polls and surveys to give people the chance to express opinions rapidly. The developer should make it as easy as possible for people to contact them by establishing a range of different communication channels: phone, email, social media, call-me function on website etc." Keep website updated with presentations, recordings, and videos from engagement events.	Using traditional methods of engagement, such as surveys, telephone polls, door knocking, and in-person events. Using digital methods, such as maintaining a project website, using 3D visualisations and multimedia, hosting webinars, and accessing social media. Using community outreach techniques and utilising established channels of communication to engage the community e.g., through local newspapers, magazines, and radio, identifying existing events and groups. Providing safe spaces for individuals to discuss and feedback, such as arranging ways for issues to be discussed on a one-to-one basis or establishing anonymous voting arrangements at key meetings; and Using independent experts to discuss specific concerns.	Identifying local community representatives and working through them, and with them. For example, employing local people to gather community views. Local upskilling programme. Youth awareness and training programmes (such as partnering with schools).	Citizen oversight committees. Regular Ballots. Meeting between decision makers, stakeholders and local community members. Participatory mapping or public geographic information system (PPGIS).

Good practices for engaging stakeholders, fostering collaboration, and promoting socioeconomic benefits

17. *The Nature Conservancy, Enabling a community-powered energy transition* report explains why community engagement is important to renewable energy projects such as this proposal and provides useful 'good practice guidelines' for implementation. Please see Page 5 below which summarizes the process to empower communities.

Summary Infographic

Empowering Communities through Renewable Electricity



Good Practice Guidelines

18. “Good practice guidelines can form the basis for transforming community engagement from an instrumental means-to-an-end process to a more empowering strategy. It is important for community engagement strategies to emphasize procedural and distributive justice as the substantive rationale, ensuring that communities derive tangible benefits from the engagement process”. It can help the Commissioner to decide on consenting conditions concerning community engagement.
19. The communication timeline presented above shows the positive upstream effects of a bottom-up stakeholder engagement in anticipation of a truly engaging consultation process agreed upon by all participants and judged effective, efficient, and valid by the participants (or representatives) of the participating parties.

Cumulative effects (Noise/Acoustics and Ecology)

20. In the Greytown’s Far North Solar Farm application we have encountered a lack of consideration to the cumulative ecological and noise effects of solar panels fields on the receiving environment. Greater examination needs to be given to these cumulative effects. Participatory processes described above are the ultimate way of ensuring that this happens in an effective, efficient and valid way.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of our submission.**

Carolina Neerincx

29 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Dayandra Hettige
Address:	459 Bidwills Cutting Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 23 kms from the proposed solar farm.
2. I have a Bachelor's degree in electrical engineering from Auckland University. I have had a career spanning over 37 years in the New Zealand power system industry. This involved design, installation and maintenance of the grid assets. I have witnessed major fires relating to power system assets during my time in the industry. I can speak from practical experience,
3. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. I understand this rural neighbourhood has not been directly consulted on this proposal.

4. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
5. In my submission my area of focus is the impact of catastrophic fires and resulting harm to the community, grid line capacity and grid security.

Fire Risk

6. To set the scene on this matter, I refer to the article titled “Worldwide Scientific Landscape on Fires in Photovoltaic”, published in Journal of Cleaner Production Volume 462, 5 July 2024:

[Worldwide scientific landscape on fires in photovoltaic - ScienceDirect - 5 July 2024](#)
7. The abstract of this publication is stated below in verbatim to highlight the increasing number of fires arising from PV based systems. In the FNSF case, which is a large Industrial Agrivoltaic Power plant proposed closer to human habitation. During the life cycle of the plant, it has the propensity to generate multiple fires, where some of these could be categorised as catastrophic.
8. *“The rapid growth of photovoltaic (PV) technology in recent years called for a comprehensive assessment of the global scientific landscape on fires associated with PV energy installations. This study examines the scientific literature indexed in Scopus from 1983 to 2023. It reveals a striking increase in output since 2011, with nearly one hundred publications in the most recent year under review. This growth of interest has occurred in parallel with the global expansion of photovoltaics. The majority of studies in this field are classified as engineering, with 34% of publications in this area. The USA leads the way with over 160 publications, followed by China with 125. Two institutions in the USA are particularly prominent in this field: Sandia National Laboratories in New Mexico with 22 publications, and the National Renewable Energy Laboratory in Colorado with 16 publications. The second institution is the University of Science and Technology of China, which has published 17 articles on the subject. A close examination of the evolution of keywords reveals a remarkable transformation in the scientific landscape over the past 10 years, from 2013 to 2023. The evolution of keywords suggests a maturation in the understanding of fire risks associated with photovoltaic energy. A total of seven scientific communities have been identified in which these works are grouped according to their keywords. These include Fire and Energy Storage, PV faults, Fire resistance, Fire hazard, Fire*

detectors, Deep learning, and Fire safety. It has been found that fires caused by PV installations are not listed as a cause of fire starts. This should be taken into account when conducting preventive analyses of this potential danger, particularly in light of the possible development of Agrivoltaic, where facilities will be mainly located in the natural environment”.

9. Positioning of industrial scale solar Agrivoltaic plants close to communities poses a significant hazard.

Please see the Sydney Olympic Park Aquatic Centre PV solar fire. Resulting evacuation 2,500 people - [Thousands evacuated from Sydney Olympic Park after solar panel fire | 9 News Australia - 13 May 2024](#)

10. Enclosure fire in USA. Point to note is that these fires cannot be extinguished using standard firefighting methodologies. There are 32 of these containers in FNSF project - [Solar Farm Fire- "A Tough One" Lance & Glenn Wheeler - 18 July 2022](#)
11. Jackson County 400 acre solar farm fire. Primary fire that ignited secondary fire burning through five acres of grass underneath the panels - [Fire breaks out at Jackson Co. solar farm - 1 September 2022](#)
12. PV Solar Farm Cable fire at a USA solar farm - [Fire in solar plant - 7 June 2018](#)
13. Town of Lyme in USA battery storage fire that could not be put out for 3 days & 3 nights of firefighting. Where the town had to cancel their community day - [Investigation into Lyme solar farm fire begins - 1 August 2023](#)

Hail damage

14. According to Verisk's hail data from USA, the number of days when hailstones measuring 2-inches or larger fell has been increasing, particularly in the Midwest and Northeastern United States. Climate change may not only create more fertile conditions for severe weather, but it may also contribute to larger hailstones.
15. Severe thunderstorms that produce large hail are also increasingly common. Solar panels are tested to endure hail strikes, but some tests may not be keeping pace with the growing size of hail.
16. Texas residents have contamination concerns after solar panel are damaged. Where the residents' concerns at the planning stages were ignored. - [Texas residents have contamination concerns after solar panel's damaged - 23 March 2024](#)

Grid Line Capacity

17. The Masterton Substation is part of the Transpower Grid network that is supplied by a double circuit 110 KV transmission line starting from Haywards substation, which heads north to Mangamaire.

18. The current planned PV based injection of sizeable MW generation at Carterton is more than likely to exceed the capacity of the above mentioned 110 KV circuit. Effectively, this means that the entire 110 KV double circuit line will require upgrading. This will be multi-million dollar project to re-conductor this circuit.

Grid Security

19. The integrity of Transpower's 110 KV circuit, which runs overhead to the proposed solar project could be seriously compromised from plumes of toxic smoke arising from PV based fires. This will effectively trip the 110KV double circuit line causing major power black out to the Carterton district.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of my submission.**

Dayandra Hettige

27 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Judy Jay
Address:	80 Battersea Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 23 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. We understand this neighbourhood have not been directly consulted on this proposal.
3. I am a lay person but as an s274 submitter for the Greytown Solar Farm proposal in the Environment Court I have gained an understanding of the environmental effects of solar farm developments over the past year.
4. I have read the submissions of Paul and Helen Trotman, Jill Greathead, Richard Schofield, and Rachel Hughes and Davida Ann McDonald. I have also read Forest and Birds original

submission on the neighbouring Harmony Energy application. I endorse all the issues and concerns raised.

5. The concerns raised are fundamental to achieving the right balance between solar power generation and respect for the environment and the community. These issues provide a starting point for further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.
6. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
7. In my submission I am submitting on my experience associated with the Far North Solar proposal in Greytown: specifically with regards to consultation, the need for a Community Liaison Group and the effects that these developments have on aspects of mental and emotional wellbeing.

Consultation

8. I have read [Appendix 5 - Community Consultation Record](#) which shows a robust (with the exception of the Harmony Energy Neighbourhood) consultation process prior to submitting the Resource Consent application. The *Potentially affected persons consultation package* is a well-prepared document that summarises the proposal in a manner that lay people can understand and submit on.
9. I note that in Table 2 (Paragraph 4.2.4) that out of 35 affected parties 10 gave approval, 9 did not give approval and 16 were TBC. Given the magnitude of this proposal the lack of follow up demonstrates a sub optimal approach to community engagement.
10. When the resource consent application was publicly notified on 3 July 2024 of the three (3) submissions received, two (2) were against, and one (1) was for this proposal. This may indicate that the affected party list was not offered the ability to submit to this publication notification process. As an example, in the Greytown Solar Farm public notification process 46 submitters responded (39 were opposed, 3 were in support and the remaining 4 were support/oppose in part). Please note that the 3 in support did not live in this rural neighbourhood.
11. I am grateful that this resource consent process has reopened for late submissions as this has given the rural neighbourhood of East Taratahi an opportunity to have their say.

Community Liaison Group(CLG)

12. During the Greytown Solar Farm hearing the Court identified that many of the proposed conditions would benefit from further attention. The establishment and operation of a Community Liaison Group and a complaints protocol was identified.
13. In our submissions for the reconvened hearing on 12 November 2014 we have emphasised new conditions to provide a strong link between the consent holder, contractor and the affected rural neighbourhoods to mitigate the effects of the development on the social and environmental welfare of the community and the land.
14. We have included [DRAFT Communication and engagement conditions](#) in our Proposed Additional Conditions in our submissions to the Court.

Mental and emotional wellbeing in my original submission to the Environment Court

15. In my original submission to the Environment Court, I highlighted the adverse impacts that the Greytown Solar Farm proposal has on all aspects of wellbeing; mental and emotional, physical, family, social, and economic.
16. I reviewed the 39 submissions when the proposal was publicly notified and invited submitters to write or talk to me about how this proposal is affecting them. I gathered evidence from 14 submitters who expressed very real impacts on their mental and emotional wellbeing.
17. I believe there should be consistent guidance provided to developers of large-scale solar infrastructure to mitigate the cumulative negative effects on social wellbeing, rural communities and the natural environment.
18. Undertaking social impact assessments early on in the development of proposals such as these to mitigate the social wellbeing effects would constitute better practice and long-term outcomes for those impacted.

Conclusion

19. There are very real social wellbeing effects associated with large-scale solar infrastructure within rural communities, that need to be specifically acknowledged and considered. Given the longevity of proposals such as these it is vital that during the planning, construction, and operational stages sufficient meaningful engagement and consultation is undertaken.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of my submission.**

Judy Jay

27 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Marvin and Juliet Guerrero
Address:	556 Perrys Road, Masterton
Cell Phone:	██████████
Email:	██████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We were not aware that the NZ Clean Energy proposal had been publicly notified on 3 July 2024, so we are appreciative of the opportunity to make this late submission.
3. We have read the submissions of Paul and Helen Trotman and Jill Greathead.
4. We endorse both submissions and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and the EPA have made its decision for the Harmony Energy Solar Farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.

In the event that this application is subject to a Resource Consent Hearing, **we wish to be heard in respect of our submission.**

Marvin and Juliet Guerrero

28 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Sanne van Steensel
Address:	168 Main Street, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 17 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. We understand this neighbourhood have not been directly consulted on this proposal.
3. I am an Herbalist, Holistic health coach, Organic farmer/market gardener and manager, permaculturalist and advocate for Gaia, Mother Earth. I am one of Frank's students in agroecological farming and landscape management practices culminating in 7+ years of experience.

4. I am an s274 submitter for the Greytown Solar Farm proposal in the Environment Court and have gained an understanding of the environmental effects of solar farm developments over the past year.
5. I have read the submissions of Paul and Helen Trotman, Jill Greathead, Richard Schofield, Monique Leerschool, Rachel Hughes and Davida Ann McDonald. I have also read Forest and Birds original submission on the neighbouring Harmony Energy application. I endorse all the issues and concerns raised.
6. The concerns raised are fundamental to achieving the right balance between solar power generation and respect for the environment and the community. These issues provide a starting point for further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.
7. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
8. In my submission I am submitting on my experience associated with the Far North Solar proposal in Greytown: specifically with regards to issues in the future for my generation.

Industry & Systems

9. I spent one year at Vic university in the architecture programme where the lecturers were very clear on a number of occasions that the building codes are all minimum requirements. Sticking to the building code doesn't necessarily mean you build a house of quality. It's the cheapest build you can design that stands and does its job whilst being legal. They encouraged us to do better than that and design quality.
10. So, when a professional espouses rules and regulations, my first question now relates to the quality of those rules and regulations. What do they mean or say about the actual resulting environment? It's no longer reassuring just to know that there are rules and regulations. I wish to understand why we have the rules and regulations that we have.

End of life

11. I believe it to be appropriate for there to be more conditions regarding end of life. This is because our community water supply that we drink, and use the water to produce what we eat is at risk.

12. The landowner is not the only one risking property, livelihood and health. I would like to see consent conditions relating to our notification and approval of the decommissioning programme, protocol and time frame as this could end up being just as disruptive as the build.
13. We wish to know where and how parts will be decommissioned so that they are indeed done in the most environmentally respectful manner. If we are aware of a better more environmental option, we wish to add this input.
14. Ideally, we would see a full and detailed decommission plan in full transparency before the construction begins. Solar has already been around for more than 30 years (the life expectancy of the panels) . We were led to believe that solar panel recycling would be normal 15 years ago. We are still waiting and are now increasingly sceptical.
15. We would like to see a consent condition regarding the clean-up of unexpected or unanticipated damaged equipment prior to decommissioning. We would not like to see damaged panels due to an earthquake, or fire or an extreme weather event left onsite to leach for an extended time period simply because they still have a lease for another 9 years.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of our submission.**

Sanne van Steensel

29 October 2024

**Late Submission for the Resource Consent Application – RM240005 Masterton
Solar & Energy Storage Limited, SH2, Carterton**

Submitter Details:

Name:	Frank van Steensel
Address:	260 Moroa Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 24 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. We understand this neighbourhood have not been directly consulted on this proposal.
3. I hold a MAgScience from Massey University, Soil Science (1996), Sustainable Agricultural Studies Systems, majoring in Crop Ecology, Environmental Microbiology, Soil Water Pollution and Organic Farming Systems. Thesis: Farm Management and Soil Quality.

4. I am an s274 submitter for the Greytown Solar Farm proposal in the Environment Court and have gained an understanding of the environmental effects of solar farm developments over the past year.
5. I have read the submissions of Paul and Helen Trotman, Jill Greathead, Richard Schofield, Monique Leerschool, Rachel Hughes and Davida Ann McDonald. I have also read Forest and Birds original submission on the neighbouring Harmony Energy application. I endorse all the issues and concerns raised.
6. The concerns raised are fundamental to achieving the right balance between solar power generation and respect for the environment and the community. These issues provide a starting point for further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.
7. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
8. In my submission I am submitting on my experience associated with the Far North Solar proposal in Greytown: specifically with regards to: General impacts, Groundwater, weathering water, leachate, soils – hazardous & substances and new organisms, compaction, plantation landscaping, and air.

General Impacts

9. I seek the opportunity to draw attention to the ecological impact (e.g. soil water air and landscape quality) resulting from the placement on stony silt loam with pasture of electrochemical machinery inherent in a large scale prototype of mineral-based energy generation and the way in which an urgency to implement such a scheme runs counter to the letter and the spirit of sustainability in legislation such as the Resource Management Act and the Hazardous Substances and New Organisms Act.
10. This mainly invisible hazard has adverse effect to the ecology as I stated in my original submission is manifested in the circumstances in which we find ourselves now in which large areas of stony silt loam with pasture, much of it only several feet above the water table (during winter), are to be covered by equipment (including rare earths/trace elements) which are exposed to chemical, physical and biological weathering resulting in breakdown (eg. deterioration and thus water entering the panels hence dissolving in e.g.

metals and rare earths transporting them to ground and other water bodies. The question is not does this happen, but how long does it take and what will be the volume of resulting contaminants and how long does it take to accumulate toxicity levels. The introduction on large scale of rare-earth/trace elements can easily upset the local ppm balance of these elements in the soil and resulting accumulation causes toxicity aspect of rare earths/trace elements.

11. The effects of the impact of mineral-based power generation with elements of the equipment centimetres above the ground, which in places is only a few centimetres above the water table, introduces via weathering alone a potential cocktail of contamination to groundwater which will become evident in the medium to long term affecting generations dependent on that groundwater.
12. My evidence for identifying the contaminations associated with installing such equipment in such proximity to fresh water resources is that the formula for the equipment of the sunlight receptor systems includes e.g. polycrystalline silicon, amorphous silicon (a-Si), along with semiconductors compounds the composition of which features cadmium sulfide (CdS), cadmium telluride (CdTe), copper sulfide (CuS₂), copper indium diselenide (CIS), copper indium gallium diselenide (CIGS), copper gallium diselenide along with (CGS), germanium (Ge), and gallium arsenide (GaAs). Any type of solar panel uses some sort of rare earth/ trace element compounds in its formula presenting similar faith under weathering.
13. Rather than exploring the whole cocktail of contaminants an example is given here as supporting proof contained in United States Federal Government research which points out that cadmium is recognised as a toxic substance by the United States Environmental Protection Agency (EPA), which set a maximum contaminant level (MCL) for cadmium (Cd) of 0.005 mgL⁻¹ in drinking water. Tellurium (Te), while not regulated by the EPA, has also been shown to have the potential to cause kidney, heart, skin, lung, and gastrointestinal system damage in rats and in humans. In essence all rare earths/ trace elements are toxic in higher concentrations, since we are working in a soil matrix with ppm for these elements ('trace elements'). Concentrating them in panels and then having 1000's of panels under weathering conditions means high risk of accumulation in the soil matrix breaching toxicity levels over time and space.
14. The danger of these contaminants is in the complexities attendant upon detecting them and their antagonistic behaviour. In contrast the presence of additives in the form of

fertilisers becomes evident via the presence of eutrophication caused by the over-enriching of surface water through over enrichment with nutrients causing excessive growth of algae and plankton downstream.

15. In example the toxicity of CdTe itself is poorly characterised, but several studies have shown that CdTe and CdTe quantum dots are cytotoxic to mammalian cells. CdTe can cause severe pulmonary inflammation and fibrosis. Zayed and Philippe (2009) studied the acute toxicity of CdTe to rats via nasal and oral routes. The median lethal concentration of aerosolized CdTe in the nasal exposure test was 2.7 mg CdTe L⁻¹ atmosphere (particles were 2-3 µm in diameter). The acute toxicity was also evaluated with oral gavage administration together with carboxymethylcellulose. In the oral route the highest body weight dose of 2g kg⁻¹ was below the lethal concentration in a 14-d observation period.
16. All the evidence is that there is nothing that is inert (to weathering) in the structures necessary to the project. The diversity of metals in the componentry is itself evidence to its disaggregation through temperature changes (physical weathering). The requirement of these substantial arrays of equipment to themselves react to these climatic fluctuations and (weather) extremes will intensify this weathering effect.
17. This effect due to chemical and physical transitions will have the cumulative adverse outcome due to transportation and leaching of the various dissolved chemical contaminants (presenting a risk in themselves to soil water and air quality) but it will also cause a change in soil microbiological community composition. This loss of diversity goes together with loss of soil function and is more than likely to enhance losses for the soil system (pushed back into juvenile phase) like CO₂ and greenhouse gas emissions. (Table Odum; tabular model for ecological succession: Ecology; A bridge between science and society Eugene.P. Odum ;1997)
18. I have outlined later in this submission the composition of some of the metals used in the panels. To these I stress the rare earths so essential to solar equipment.
19. The evidence I have presented becomes multiplied by these rare earths which being concentrated over a defined area i.e. the solar project now becomes concentrated and becomes a measurable, even weighable, component of the pasture and with the results that I have just described.
20. The term “minor elements” used in the media is at best misleading as it is well known that this finite RARE resource (hence the name rare earth’s or trace elements) have been the cause of geopolitical unrest and conflict. The proposed large scale use of these rare earth’s

in renewables in informed circles is socially (child prison and slave labour), environmentally (mining is energy intensive and produces more waste then product) and economically (highly expensive as it is rare!!!) unacceptable. I had the honour to personally be confronted with this phenomenon due to our off grid experience. There is currently a large discussion emerging to rename “renewable” into “rebuildable” as the current definition is hard to maintain! At the same time these externalities have not yet been taken into account in this project as nobody seems to be aware of them!!! Is it assumed that the public carries the bill or is this carried by the corporate side of the project? There is nothing minor about these elements!!!

21. In no other application is electro chemical machinery placed just above vegetation that by definition enters the food chain

Groundwater

22. The preoccupation with the fresh water we see in lakes, rivers, and reservoirs is perfectly understandable coupled as it is with the necessary consciousness of the drinkable, potable water that sustains us directly or via flora and fauna.
23. We must now confront the water that cannot be seen, and I refer to subterranean water in all its forms, notably groundwater and aquifers
24. The reason is that the solar generating plants under consideration for the Wairarapa Valley floor, and notably the one under discussion here are scheduled to be positioned above one of the nation’s major accumulations of such hidden waters in the form of an aquifer.
25. This groundwater and I refer to the low-lying pasture scheduled to be covered with generating machinery and associated equipment is sufficiently close to the surface of the ground and under such pressure that in the event of floods it bubbles up through the earth and thus contributes to the inundation.
26. This is a rare phenomenon and its occurrence in this low-lying pasture plain, areas of which are becoming designated coverage by electrical generating equipment reminds us of the particular significance here of groundwater presence, pressure and volume.
27. Old school rural professionals’ widespread assumption that ground water in all its forms stays more or less static being contained in the same area in which it was collected is no longer valid.
28. In fact, groundwater flows from place to place in its subterranean conduits in much the same way as do rivers and streams. There is horizontal as well as vertical exchange of water

and solutes. This has been long recognised in ecology (see reference above on Massey's university master's program obligatory book Ecology; A bridge between science and society Eugene.P. Odum ;1997).

29. We now need to include in this category of introduced substances, held in various stages of solubility and coursing through our permeable soils and substrates (transportation), the residue from these planned large scale generating plants which by definition are required to present to the weather the greatest surface area possible.

Weathering and water

30. I refer here especially to weathering as outlined earlier, this integrated process in which metals etc dissipate under the effects of the atmosphere and through the nature of their operations especially in maintenance.
31. In terms of disintegration, it is true that over the years this weathering will only be visible to the human eye on close inspection. This weathering will be enhanced by the size and monotony of the site which will increase climatic extremes speeding up physical, chemical and biological weathering of the panels and the site.
32. But in terms of substances released into the ground, these substances in the form of trace elements and rare earths will have over time, a measurable effect on ground water and the associated aquifers.
33. Similarly, we find that this weathering will be enhanced in dispersing such substances through the maintenance of the panels such as in cleaning them, an often overlooked function.
34. Groundwater systems in New Zealand confer on the nation a similar benefit to the economy, sustained as it is through ways in which food is produce all the year around and so the groundwater systems blend in considerable environmental importance.
35. They provide a pathway for chemical elements like metals and rare earths from land use to enter surface water and thus groundwater assessments are fundamental to protection, or restoration, of freshwater bodies such as lakes and rivers.
36. The point that needs to be emphasised here is that chemical weathering, when applied to man-made substances themselves based on chemicals, is a threat to the groundwater system just because such metals held in solution become toxic if they are released in high quantities and thus contaminate water resources and soil (above recognised baseline soil levels) .

37. Mapping the contours of groundwater, notably the nation's aquifer has been stimulated by the need to trace the effects of knowingly introduced substances such as nitrates. Only recently are we discovering that this surveyed groundwater involves the transmission and transport of dissolved metals such as iron, manganese and arsenic.
38. All these contaminants in alluvial aquifers can stay in ecological balance/solution for many years – and travel long distances.
39. Only in quite recent years has the local movement of water between groundwater and surface water systems been analysed revealing the full extent of the impact on water qualities. High quantities of nutrients or other dissolved chemicals in surface water can be transferred to the connected groundwater system and vice versa.
40. Similarly, efforts in quite recent times and once these principles been understood, have been underway to remediate growing levels of nutrient pollution from nitrate and phosphate runoff.
41. In the implementation of the extensive solar generating schemes envisaged for Wairarapa Valley stony silt loams with pastures, we introduce to the nation a peril envisaged in the 2005 Hazardous Substances and New Organisms Act.
42. Just because groundwater flow patterns are still to be fully charted and because it is already known that water and thus the substances suspended and dissolve in it endure for so long in the aquifers, we need to heed the dangers of implanting what for this nation is an industrial development in its prototype stage, and thus it introduces a threat still to be calibrated let alone acknowledged and managed. It would be instructive to a (holistic or integrated, in other words 3 pillar based) monitoring and evaluation programme to enable adaptive management of the site to reduce and remediate the inherent risk involved, and to find and evaluate emergent properties (good and bad as dictated by the situation) to protect future generations and the planet.
43. Given that the area in the Carterton District, and which lies within the purview of the groundwater flows, includes products dependent on global branding and thus water purity for their terroir and premium (verified by third parties and international trade negotiations and branding), then every caution is required in positioning these electrochemical generating plants.

44. It is necessary to cite here the existence of the Taratahi Water Race. The presence of this in the proposal is emphasised in the project plan for the scheme which cites the crossing of it at eight intersections and direct connecting to winter drainage towards the river and lake.
45. I may refer here again to the widespread misconception to the effect that it is surface water in rivers and lakes that feed the groundwater. As stated, before it is a horizontal as well as a vertical dynamic depending on topography and climate. Forty percent of water consumed in New Zealand is derived directly from groundwater. This is in a periodic exchange between all waterbodies horizontally as well as vertically. This causes dilution but any extra trace elements or rare earths transported will be an increase on the natural load and cause a serious risk for toxicity due to ppm increases on top of existing balanced concentration.
46. The adverse effect of introducing the new mineral substances is that the integration causes an unnatural increase (input) that upset the balance of the underlying soil and water compositions upon which the pastoral developments are dependent. Again, the increase in rare earths' and trace elements is highly disturbing and can be compared to the behaviour of arsenic. A small amount (in parts per million) can quickly become toxic. An application of a gram per hectare would present a danger

Leachate

47. This project requires an immense number of galvanised steel piles on which will be mounted the solar panels. We are aware of the effects of standard timber fencing piles. The addition though of such an intensity of galvanised steel into low lying pasture causes a chemical oxidation/reduction process that will become accelerated through the alternating wet-dry-wet processes (including pH changes) in such pasture soils, and this will contribute to increased elemental exchanges between ground water and steel eroding metals of the post into moving ground water of the underlying soil, and thus in the associated water bodies.
48. As we look at the integrated balance in terms of chemical, biological, and physical weathering we can only see concentrations multiplying in the food chain. In terms of the arrays of galvanised steel piles driven into the pasture there is a multiplier effect, an acidic one, in which the leachate increases with the rate of corrosion. This compounding effect of the submerged metals means that the more the piles corrode – the more their component metals dissipate into the water table.

Soils: Hazardous Substances and New Organisms

49. The Hazardous Substances and New Organisms Act which anticipated exactly such developments as are under review by the Court now. In particular this refers to materials and structures in the HAIL category.
50. I interpret the spirit of this Act and we must remember that nothing such as the extensive coverage of pasture (enhancing monoculture impacts, eg, loss of diversity resulting in increased losses from the system including the rare earths/trace elements in solution) by electrochemical processing machinery was envisaged at this time as seeking to legislate for the type of advanced processing that is under the consideration of this Court.
51. We may balance this in regard to the Resource Management Act's concern for soil and water now and during the existence of future generations and which may be adversely affected by the electrochemical and mechanical processing equipment of a large scale solar installation.
52. If it is in the wisdom of the legislators, I may take the opportunity of making an informed opinion and even offer it as evidence that the Court in fact is looking at the cumulative effect of the imposition upon the soils and the waters that literally and figuratively and in fact underpin this scheme that introduces the danger of the project to present and future generations.
53. Soils especially well developed/mature soils at one and the same time filters, buffers, degrades, immobilises and de-toxifies organic and inorganic materials and this includes atmospheric depositions as well those from industrial and municipal sources. Which is why any large-scale change, such as is envisaged here must be considered only after substantially more research than the various schemes for the district have so far elicited. .
54. The prototype experimental nature of this project embraces also the adverse effect on underlying stony silt loam with pasture of equipment and machinery which by description is in motion. I refer to the axial mounted panels and particularly to the bearings thereof.
55. It is here that there will be applied various protective fluids including dielectric fluids. Once again, such additives will serve to remind us of the untested results of laying across productive pasture and in such density machinery of this scope.
56. There remains too the issue of the inverters which we are told can be located within 100 metres of an occupied residence and we are informed that any adverse effect to the said

occupiers will be “less than minor.” This in turn returns us to another central element in these proceedings.

57. In addition, what will be the cooling methods applied to these inverters which we are told are in the shape of the specified 33 40ft containers and are thus at the larger end of the ISO scale? Again, we find ourselves seeking to find out exactly what substances are being introduced on top of these productive soils and waterways consequent to this aspect of the operation.

Soil Quality

58. The soils on the plains are biologically, chemically and physically very similar to (the recognised as best ag/hort soils in the world) soil type around Greytown/Carterton and Masterton. They are classed as our prime soil class 1. The soil type under discussion here is classed as 2 and /3 mainly, and the description of having reduced value through the presence of stones would be questioned by any authority. We may refer in this whole matter to the more colloquial appellation for these soils and I refer to the 'silt loams' classification which in turn devolves into the valley 'stoney silt loams'. These possess a number of agricultural and horticultural advantages in terms of drainage and heat retention.

Compaction

59. I have noted the submissions of soil specialists on behalf of the developers, especially to the effect that the pasture will improve due to the installations on the pastures. The specialist is not deliberately misleading but his strictly physical approach to soil science is 'old school' and the effect will be short term. An integrated approach as currently recognised by leading bodies like the Soil Science Society of America in soil quality recognises that the long term trend will be a decrease in soil quality due to loss of biodiversity causing losses of soil functioning/regulation (e.g. ecosystem service) increasing losses from the system: leaching and eutrophication and increased risk of contamination, gge like co2 and Nitrogen based compounds comparable to what happens in juvenile ecosystems.
60. I acknowledge that the administration of cleansing fluids to clear the dust from the panels may have a beneficial effect on the pasture in the short term. Yet It is true also that the gravel surface of adjacent roading will lead to the application of a substantial tonnage of cleansing requirement, and it is also true that the longer term transfer of such substances to the pasture beneath will lead to changes in the nature of this soil (as mentioned above).

The mere fact that the site is very large and monotonous decreases the (bio)diversity even further than (also recognised by succession theory juvenile vs mature) did the original clearing of the Mature totara forest with increase losses from the system in reducing soil, water, air and overall landscape and thus productive quality.

61. Similarly, I have taken note of observations that the shading effects of pasture mounted equipment will have a beneficial impact on this same underlying soil and presumably will do so by improving seasonal growth. Again, only a temporal impact leading to a gradual decline in diversity and thus productive value the speed of which is probably determined by the intensity of the sheep grazing e.g. very short =reducing pasture diversity. Once again the lack of variable in the research reports make these conclusions at least questionable.
62. The issue of compaction is disputable. Currently the majority of these soils are being used for winter grazing dairy cows as by the “rural professionals” advice: “due to their drainage and heating characteristics” The contention delivered on behalf of the developer is that the absence of cattle-grade compaction (opinion contrasting other rural professionals as mentioned above) will improve the fertility of the pasture can be compared to the longer-term diminution of fertility due to the impact of heavy service systems and accompanying personnel. There remains too the compaction or densification of soil due to the intensive pile driving of support structures for the axial panels. The main compaction in the valley is a subsoil compaction as a result from biodiversity loss due to loss of mature characteristic due to the clearing of the totara forest inducing a pH change due to the loss of rooting depth enhancing concretion development/compaction in the subsoil a well-known phenomenon recognised by the locals . This is part of the trend of soil losing its functions (free ecosystem services) due to losing mature/climax characteristics after destruction of the original forest.

Plantation Landscaping

63. In ecology and notably in soil and water conservation the presence of deeper-rooted vegetation assumes particular significance. As I have outlined previously this is because the deeper the root of vegetation notably trees the greater the conduit capacity of nutrients from the pasture surface to the soils and waters beneath in terms of the biodiversity impact that enhances free ecosystems services especially in microbial functional activity.
64. One of the reasons that pastures such as those of the Wairarapa Valley delivered such prosperity to the early settlers was just because these grasslands had so recently been the home of deep-rooted native trees, notably the totara.

65. The substitution of these original trees by fast growing shallow rooted varieties restored a partial nutrient transmission and as such a topical issue now the difference in nutritional value has been compensated for by the addition of fertilisers of various derivations.
66. The pasture, in losing the original deep-rooted trees (Totara forest trees) has thus transitioned from being mature to one of being juvenile which means that from being self-sustaining it now requires outside help in the form of these additives.
67. I have noted landscaping reports from the South Wairarapa District Council and from those associated with the development of this project. In all instances there is this determination to compensate through the planting of quick growing foreign-derived vegetation, which will be a boundary issue only, everything inside the area that still resembles forest /mature characteristic will be cleared thus will become increasingly juvenile.
68. The destruction of the second generation of trees, the foreign varieties with their shallow roots has had some offsetting value in nutrients transmission, and of course there is the value in shade they provide to stock.
69. There is also, in this project and others like it envisaged for the southern Wairarapa valley floor communities, the elimination utterly of any mosaic or patchwork covering that encourages mature characteristics like biodiversity and hence landscape quality (particularly in the form of key indicator spp in NZ the falcon and the bats), especially in shelter for beneficial species, the type of which stimulate local products and the economy in terms of tourism.

Climatic Extremes

70. A precautionary principle

Cyclone Gabrielle which many expected to make landfall further south on the North Island's east coast, in the vicinity now only slightly north of where we are sitting now. I may here distance myself from any meteorological expertise other than its weathering effects on geology in soils creation and movements. I have noted though the Applicant's construction and engineering data in regard to the single axial panel driven-post mounted equipment and observe the effect on such structures of the extreme weather events such as Cyclone Gabrielle, hail and wind which are informed will become increasingly prevalent.

Air

71. In ecology bees share a similar distinction with earthworms. The bee is a key indicator species to what is happening above ground in the same way earthworms are to what is

going on beneath it. In other words, both species and their welfare or otherwise is a proof of diversity and wellbeing of the ecosystem.

72. My original submission also alerted all parties to the threat of this scheme's effect both immediate and cumulative to ecology in terms of bees. The welfare of bees is utterly connected to the sustainability of soil and water just because bees determine what can be cultivated through these elements.
73. The existence of end-to-end electromagnetism in an area used extensively by apiarists and added to that already emitted by trunk powerlines will have adverse effects on bees.
74. This will impair pollination services to flora through interfering with behavioural and physiological instincts. This will become translated into a lower number of floral visits that reduced seed production, which, in turn, lowered diversity and vegetation abundance.
75. Honeybees' exposure to EMF disturbs their foraging capabilities by altering their magnetic navigation, learning, decision-making mechanisms, flight, and foraging, thus impairing pollination activity. This evidence is proven by the observed reduction of worker bee flower visitation around areas near electric transmission capability.
76. The developers of this project have been at pains to note their attention to heritage elements of their scheme. So, it is appropriate now to stress the adverse effect that this development and others like it planned for nearby pastures will have on recovering wildlife species (landscape quality). I note the NZ falcon, the bronze shining cuckoo, and bat the only native land mammal. These are all susceptible to abrupt changes in luminosity and atmospheric frequencies among other suddenly inflicted disturbances in their environment.
77. It can be concluded therefore that the extensive implementation of electromagnetic radiation capability and other increasing juvenile characteristics like biodiversity loss alongside my own research station at 260 Moroa Road will reduce the effects of our own work into ecological causes and effects. We have reversed the trend towards more juvenile characteristics with as result that we improve our soil quality (eg higher OM content and increase in earthworms etc soil and air quality due to increased soil function by micro-organisms living in the soil organic matter and landscape quality as visible by increased diversity in flora and fauna notably birds including the return of herons, tui's and more pork's. We have also observed bats, but they are not yet residence. As stated, before leading by example is a for us a neighbourly behaviour. We do not expect everybody to follow us, but we would at least expect neighbours to respect our way of life and living

78. Weighing up these and other factors, and as someone to whom soils and their accompanying waters have constituted my formal education and subsequent professional life as a practitioner and instructor, I must conclusively assert to the Court my conviction that to allow a project of this dimension to proceed will introduce longer term damage through adverse effects attendant upon recycling of nutrients, control of microclimate, interruption of hydrological processes and loss of diversity in flora and fauna (loss of free ecosystems services).

Conclusion

79. In summary therefore I seek to focus attention on the enormity of what is under consideration here, which is safeguarding the life-supporting capacity of air, water, soil, and ecosystems.
80. This is the introduction into an environment dependent for its livelihood on a sustainable eco-agrarian economy a mineral-based technology, solar, that remains untested on the scale under review here, and thus unregulated.
81. My evidence I believe furnishes proof that there are known unknowns in the sectors of ecological disruption on, for example, the bee population, and on the cumulative effects of the mineral componentry under even the safest natural process as weathering entering the groundwater and in doing so remaining a presence for generations to come.
82. The prospect of a step change in the global climate has had the effect of being matched by a global rush for solutions, one of which is before us now.
83. This rush to implement solutions has been matched by a vacuum of awareness to the effect that such solutions will then become, in themselves, adverse effects leading to the ecological consequences I describe here.
84. This project and others like it, with the adverse effects of which remain unmonitored in New Zealand simply because they have not existed until now, cause extremes which, being general, will have severe effects on carbon-based lifeforms as the basis of our ecology.
85. I will add that I am not alone in all this and will conclude in noting that the Parliamentary Commissioner for the Environment in 2022 highlighted various gaps in chemical management, in particular that there is little information on the environmental fate of chemicals.
86. With all this in mind, I draw attention to the Ministry of Environment, currently defining the understanding of the Resource Management Act as understanding that its purpose is to

ensure activities won't harm our neighbours or communities, or damage the air, water, soil and ecosystems that we and future generations need to survive. In the light of all of this I see the need for the precautionary principle here as used in the late 90's to slow down pending thorough evaluation developments around genetic engineering and its impact upon our environment.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of our submission.**

Frank van Steensel

29 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Monique Leerschool
Address:	734 Dalefield Road, Dalefield, Carterton
Cell Phone:	[REDACTED]
Email:	[REDACTED]

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I have been a resident of Dalefield in Carterton for 44 years and live 14 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. This neighbourhood have not been directly consulted on this proposal.
3. I have three academic qualifications, including a Bachelor of Science in Agriculture, more than 50 years of farming experience and extensive conservation experience on our farm. I'm also a volunteer for the Sustainable Wairarapa Inc Bat group.
4. I have read the submissions of Paul and Helen Trotman and Jill Greathead.
5. I endorse these concerns to be used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. I request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and the EPA have made its decision for the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.

7. In my submission I propose to raise the need for ecological oversight of the implementation and compliance of the ecological management plan not only for this project but the other renewable energy developments throughout the Wairarapa electorate.
8. In my agricultural training, we learned that a farm is an ecological system and whenever one aspect of this system is changed, there will be repercussions right throughout the system.
9. By introducing a renewable energy project into existing agricultural land use, the ecology of the existing farm system is changed.
10. It seems almost standard for recent consent applications that a comprehensive ecological assessment - covering all possible native biodiversity and soil and water health - is undertaken by a suitable qualified ecologist. Such an assessment was submitted as part of the application and the hearing for the proposed Far North Solar Farm in Greytown and the proposed Harmony Energy solar farm in Carterton. I wonder whether the applicant took this relevant information into consideration, especially the scope, format and content of the ecological assessment for the latter proposal. If such a comprehensive ecological assessment hasn't taken place yet, I would like to suggest the applicant is asked to submit one.
11. Forest and Bird, (F&B) [[Forest and Bird Comments Received - June 2024](#)], the Department of Conservation (DOC) [[DOC Comments Received - 12 July 2024](#)] and Sustainable Wairarapa Inc. (SWI) [[Sustainable Wairarapa Comments Received - June 2024](#)] made valuable submissions for the hearing on the Carterton Harmony Energy solar farm application. Their submissions would be relevant for this particular application as well because of the proximity of the proposed Carterton Harmony Energy solar farm.
12. Once ecological considerations are translated into approved consent conditions, the question arises: how will ecological oversight be maintained during the design, the implementation, the operation and the ecological restoration of the proposed solar farm? Has a comprehensive project plan been submitted to ensure that ecological oversight could become part of the consent conditions? The attached example provides a framework for what's needed.
[Ecological Management Plan - Opunake Solar Plan - Beca Limited - 6 June 2024](#).
13. From an ecological point of view, it doesn't make sense that each renewable energy development can come up with their own proposed approach to ecological management of their site without considering nearby developments. For example, our native fish, insects, birds and bats don't take much notice of human boundaries. Our waterways are all connected above the ground and underground.

14. Potentially, there could be nine (9) solar farms in total in the Wairarapa Electorate in the near future, including six (6) solar farms within 25 km of the Waingawa site:

Carterton District

- a. **Light Years Solar** at 331 Norfolk Road (6.5ha, 4.5MW) – Under construction
- b. **Masterton Solar Farm** at 51 Cornwall Road (65ha, 12.5MW) – Consented 1 August
- c. **Harmony Energy** at Hughes Line/Cornwall/Perrys and East Taratahi Roads – consented on 23 September this year through the EPA fast-tracking legislation but went under appeal by Forest and Bird on 14 October.
- d. **New Zealand Clean Energy** (147ha 100MW)– was publicly notified on 3 July this year – received 2 submissions against and one submission in support.

South Wairarapa District

- a. **Far North Solar Farm** Greytown (235ha 174MW) – has a reconvened Environment Court hearing for the week starting 12 November
- b. **Helios Energy** Greytown (195ha 100MW) proposal is on hold

Tararua District

- a. **Energy Bay** 410 Mangamaire Road, Pahiatua (98ha 39MW) – consented
- b. **New Zealand Clean Energy** Top Grass Road, Dannevirke (123ha 65MW) – proposed
- c. **Te Tahua o Rangitāne** Waste Station - Dannevirke

15. There is not much research available in New Zealand to understand how these renewable energy projects will impact together on our local rural neighbourhood, our local native biodiversity, our land and our water. With wind shelters being cut down and panels shading the ground, new micro-climates will develop. There is a need to maintain ecological oversight across all the projects in our rural neighbourhoods so that their interactions can be understood and arising difficulties can be resolved in an integrated, consistent way.
16. In my submission, I also propose to raise the need for a comprehensive bat management and research plan not only for this project but to include other renewable energy developments throughout the Wairarapa as well.
17. As a Sustainable Wairarapa Inc bat group volunteer, I have been part of bat surveys with AR4 acoustic recorders in the Dalefield foothills, the Kaipaitangata water supply area, the Mangatarere Valley Road and the Holdsworth area where we found evidence of significant long-tailed bat activity. The sites are all within 25 km distance from the Waingawa site.

18. Sustainable Wairarapa Inc submitted evidence for the hearing on the proposed Carterton Harmony Energy solar farm of significant bat activity in Lowes Bush, a DOC reserve which is even closer to the Waingawa site and situated between Hughes Line and Perry Road.
19. DOC advises that all long-tailed bat activity within 25 km of a site should be considered as an indicator for possible local activity. This means that bats could feed across the Waingawa site and even roost there.
20. Long-tailed bats (*Chalinolobus tuberculatus*) are the only endemic land-based mammals in New Zealand. New Zealand bats are fully protected by the Wildlife Act 1953, and their habitats have also been protected by the Resource Management Act 1991.
21. There is hardly any research available in New Zealand to understand how solar farms could impact on our local bat activity.
22. There is emerging overseas evidence that solar farms may have a significant negative effect on bat activity ([Renewable energies and biodiversity: Impact of ground-mounded solar photovoltaic sites on bat activity - British Ecological Society - 7 August 2023](#)). Insectivorous bats have been known to alter their flight and feeding behaviour at ground-mounted solar farms ([Insectivorous bats alter their flight and feeding behaviour at ground-mounted solar farms - British Ecological Society - 1 December 2023](#)).
23. A comprehensive bat assessment needs to be undertaken across the Waingawa site before any consent is given. Because long-tailed bats are critically endangered, a comprehensive bat management plan should be in place as well.
24. There is a pressing need to fill our local research gaps and monitor what happens to our bats across the lifetime of a solar farm, before it starts and after it has come to an end, so that we can finetune our protection tools and strategies. Because we don't quite understand how our local bats use our landscape, we need to include all nearby renewable energy project sites in such research so that this information could inform an integrated, consistent bat management plan across all sites.
25. I would like to suggest that apart from a suitable qualified ecologist, F&B, DOC and SWI are invited to make submissions on a suitable ecological management plan for the Waingawa site as well as a suitable ecological oversight plan and a comprehensive bat management and research plan across all Wairarapa renewable energy projects.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of my submission.**

Monique Leerschool

28 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Richard Schofield
Address:	149 Bidwills Cutting Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site.

Submission Statement

1. I am a resident of Greytown and live about 20 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. We understand this neighbourhood has not been directly consulted on this proposal.
3. I am a lay person but as an s274 submitter for the Greytown Solar Farm proposal in the Environment Court I have gained an understanding of the environmental effects of solar farm developments over the past year.
4. I have a Bachelor's degree in Engineering (Electrical and Electronic) and have worked as a Telecommunications engineer for the last 40 years.

5. I have read the submissions of Paul and Helen Trotman and Jill Greathead.
6. I endorse these concerns to be used as a starting point, with further modifications as needed, to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.
7. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and the Environmental Protection Authority has made its decision on the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
8. In my submission to the Environment Court, I raised concerns about Radio Frequency Interference (RFI) impact on AM radio and xDSL Broadband.
9. I am concerned about the impact on the Wairarapa Dark Sky initiative these solar power schemes might have. We must prevent all night bright security lighting.
10. I have read Forest and Birds original submission on the neighbouring Harmony Energy application and am staggered how little weight their submission was given. I have observed first hand during the Greytown FNSF (Far North Solar Farm) hearings how little understanding both the council's and applicant's planners have regarding what they see as the "innocuous" impacts of a solar power scheme are on the environment. Wetlands have already been largely destroyed in New Zealand, but it is OK to destroy more? How can bats be hurt by a few panels? Yes, they could be. We do, really do, need to find out (monitor conditions) and respond (mitigation conditions) if solar farms are killing birds and bats.
11. Solar power schemes need to have a comprehensive set of monitoring and management plans in place. As a starting point (but only a starting point) and looking only at the ecological side there should be:
 - a. Weed management plan
 - b. Pest management plan
 - c. Bat management plan
 - d. Bird management plan
 - e. Aquatic animal management plan
 - f. Lizard management plan

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of my submission.**

Richard Schofield

26 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Rod Jay
Address:	80 Battersea Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100-megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200–400-megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of Greytown and live 23 kms from the proposed solar farm.
2. I am making this submission in support of the rural neighbourhood that exists in East Taratahi. I understand this neighbourhood have not been directly consulted on this proposal.
3. I am a lay person but as an s274 submitter for the Greytown Solar Farm proposal in the Environment Court I have gained an understanding of the environmental effects of solar farm developments over the past year.
4. I have read the submissions of Paul and Helen Trotman, Jill Greathead, Richard Schofield, and Rachel Hughes and Davida Ann McDonald. I have also read Forest and Birds original submission on the neighbouring Harmony Energy application. I endorse all the issues and concerns raised.
5. The concerns raised are fundamental to achieving the right balance between solar power generation and respect for the environment and the community. These issues provide a starting point for further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood.

6. I request that you defer this decision until the Environment Court has made its final decision for both the Far North Solar Farm in Greytown and the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
7. In my submission I am submitting on my experience associated with the Far North Solar proposal in Greytown: specifically, Landscape Plan and setbacks from dwellings, boundaries, roads and rural neighbourhoods.
8. I consider that solar energy facilities should be designed in a way that:
 - a. Minimises the impact on the ecology of the environment, the amenity value of rural areas, and the social and wellbeing of those directly affected.
 - b. It is designed in such a way that the minimum setbacks are sufficient to create an effective fire break, and mitigate risk to life, property, and economic losses.
 - c. Soil and water contamination is tested throughout the life of the facility. A decommissioning bond is required to guarantee site and soil remediation at the end of life.
 - d. The applicant is required to develop and obtain local council approval for a construction management plan and an operational management plan once in use. These plans must be presented to a Community Liaison Group within a specified timeframe (90 days) ensuring an adequate time frame for consideration, feedback and potential changes.
 - e. Due to the inequity of the project and process a community trust must be established to go some way to address this and develop relations between the consent holder and the community.
 - f. The Landscape plans are developed in consultation with the community and must include biodiverse nature corridors, robust management plans, sourcing plants and trees from local suppliers, and take into account ecological sensitivities such as the wetland areas of the proposed site.

In the event this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of this submission.**

Rod Jay

27 October 2024

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Rachael Hughes and Davida McDonald
Address:	56 Settlement Road, Morison Bush, Greytown
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa, Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of Greytown and live 24 kms from the proposed solar farm.
2. We are making this joint submission in support of the rural neighbourhood that exists in East Taratahi. This neighbourhood have not been directly consulted on this proposal.
3. We are lay people but as an s274 submitter for the Greytown Solar Farm proposal in the Environment Court we have gained an understanding of the environmental effects of solar farm developments over the past year.
4. We have read the submissions of Paul and Helen Trotman and Jill Greathead.
5. We endorse these submissions, and the concerns raised to be used as a starting point with further modifications as needed to respond to the cumulative effects of multiple solar farm developments in the East Taratahi rural neighbourhood. We do not repeat these here.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and the EPA has made its final decision for the Harmony Energy solar farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.
7. In my submission I propose to raise concerns about loss of agricultural land and international practice, the economic impact on Wairarapa electricity users, and 'glint and glare' impacts for Hood Aerodrome.

Loss of agricultural land and international practice

8. Internationally solar installations are being moved away from agricultural land and onto brown-field sites. Examples are in Italy where they are no longer permitted on agricultural land. The Netherlands are also reviewing this.
9. Another example is the recently opened solar farm in Germany on an old brown coal coal-mining site.
10. South Australia have also just introduced new rules around how these industrial installations can be included in local communities – including setbacks from adjacent properties and rural neighbourhoods.
11. This allows agricultural land to be retained to provide food for an increasing population while re-using areas where industry has removed much of the agricultural possibilities. This will minimize the loss of agriculturally productive land and minimize the impact on rural neighbourhoods such as this area. It also reduces the impact of contamination of land and local aquifers/streams through normal weathering of the solar panels.

Economic impact on electricity users in the Wairarapa

12. We would address the impact on the electricity users in this area. All electricity users pay for the electricity generated and the transportation of that electricity around the national and local grids. These costs are usually separated out on your energy bill.
13. Where new customers are brought onto the various grids – either as generators or end-users -Transpower and Powerco usually require “capital contributions” for that connection as well as, for larger projects, assessment of the impact on the already connected customers. This is to reduce the impact on the existing customer base
14. With this proposal and the other active and known proposals for both solar installations and wind farms in the Wairarapa, there has been no assessment of the overall impact on the capacity of the existing transmission lines – and local grid – to get this energy away both locally and through to the backbone of the national grid.
15. If even two (2) of these proposals go ahead, it is likely that additional capacity will need to be made available. Any costs associated with this should be funded by the applicant(s). These should not be to the cost of the general consumer or local consumers as they are not receiving the economic benefit. This would equally apply to the local lines operator Powerco.
16. New Zealand is fortunate in that we are mainly supplied by renewable energy resources – such as geothermal, hydro and wind farms. The largest fossil-fuel power station is Huntly –

owned and operated by Genesis. This is a dual fuel gas/coal station – with at least some of its coal being imported. Huntly is a critical generator for supporting Auckland and Northland with energy and voltage support in times of high load such as winter.

Glare and Glint impacts

17. We are not experts in glare and glint impacts. We can only discuss our own experience in this area in relation to the landscape that we are in.
18. One of the challenging issues encountered with daytime solar panel glare is the varying nature of the associated reflections, whose occurrence will vary with time of day and day of the year as the sun's rays follow varying incoming angles between the two extremes of the summer solstice (around 21 December) and winter solstice (around 21 June).
19. The Aerodromes section of the Civil Aviation Authority has also commented that a risk workshop and mitigation strategies developed with all affected parties.
20. Jill Greathead has included our supplemental submission on the FNSF Hearing in her submission to Carterton District Council.

In the event this application is subject to a Resource Consent Hearing, I wish to be heard in respect of my submission.

Rachael Hughes

29 October 2024

Davida McDonald

29 October 2024

Directions/Minute of the Commissioner #3
Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

Further to Minutes #1 and #2 issued on 23 October 2024 and 29 October 2024 respectively, I received via the Council on 29 October 2024, a request for acceptance of a late submission from Mr S Johnston dated 29 October 2024, indicating that Mr Johnston wished to be heard if there is a hearing.

A copy of that late submission is included in **Attachment 1**.

As required by Minute #1, by **3pm on Tuesday 29 October 2024** a number of parties advised that they wish to be heard in support of their submission. I understand that those requests have been sent to all the parties.

Included with the abovementioned request, I also received a request from Mr L and Ms H Hendrikse that they now wished to be heard. Mr and Ms Hendrikse lodged a submission within the original notification period, indicating that they did not wish to be heard. A copy of that request is included in **Attachment 1**. I had proposed to deal with all the submitters who made submissions within the original notification period as an aspect of the next steps as set out in Minute #1 Item #7. However, with the request from the Mr and Ms Hendrikse, I now consider that Ms C Emerson and Mr Telford who previously advised that they did not wish to be heard, as a matter of fairness, be given the opportunity to confirm that position or advise that they do wish to be heard. To that end, Ms Emerson and Mr Telford are to advise the Commissioner as to whether or not they wish to be heard in support of their submission and that information is to be provided to Ms Suzanne Zabell (buildingadmin@cdc.govt.nz), Hearings' Administrator at CDC, by way of email, no later than **3pm on Friday 1 November 2024**. As soon as practicable following receipt of any such information received pursuant to that direction, CDC is to provide a copy to all other parties (late submitters and the Applicant) to these proceedings by way of email.

The remainder of the timeframes set out in Minute #1 remain unchanged. For completeness, the Applicant should address all the requests for the acceptance of late submissions and the requests to be heard, in their response as required by Minute #1, Item #3.

Correction

In Minute #1 it states that, "In terms of making a decision on a request for acceptance of a late submission, sections 20 and 37A of the RMA set out the relevant criteria for consideration. Should any party have a different view, they should indicate that view in their response as timetabled below."

Ms Tancock, in her memo dated 29 October 2024, states at para 4;

"Counsel agrees with the Commissioner that the decision as to whether to accept late submissions should be made under ss 37 and 37A of the RMA. It is unclear what the Commissioner's reference to s20 is given that that section has been repealed, but expect it was a typo, and the intended reference was to s37 RMA."

I concur that the reference to section 20 of the RMA is incorrect. The reference should have read, sections 21, 37 and 37A of the RMA. With that clarification made, it would be

appreciated if the Applicant could address those sections of the RMA in their response. Similarly, Ms Tancock has the opportunity to address the clarified identification of sections of the Act, in any reply, under Item #5 in Minute #1.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 30 October 2024

ATTACHMENT 1 – Copy of Late Submission from 29 October 2024 and Request to be heard from Mr and Ms Hendrikse

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Soren Johnston
Address:	383 East Taratahi Road, Carterton
Cell Phone:	██████████
Email:	████████████████████

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. I was not aware that the NZ Clean Energy proposal had been publicly notified on 3 July 2024, so I am appreciative of the opportunity to make this late submission.
3. I have read the submissions of Paul and Helen Trotman and Jill Greathead.
4. I endorse both submissions and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. I endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. I request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and the EPA have made its final decision for the Harmony Energy Solar Farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.

In the event that this application is subject to a Resource Consent Hearing, **I wish to be heard in respect of our submission.**

Soren Johnston

29 October 2024

From: Leo & Heidi Hendrikse [REDACTED]
Sent: Tuesday, 29 October 2024 2:50 pm
To: Building Admin <buildingadmin@cdc.govt.nz>
Subject: submission solar energy/ NZ Clean Energy Limited - RM240005

Caution: This email originated from outside the council. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Re: Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited - RM240005
With reference to the above application, and our submission made on 25th July 2024 we stated we did not wish to be heard. Please note we would like to change this and would now like to be heard in respect of our submission.

Please contact us should you wish more information.
Thank you
Leo & Heidi Hendrikse

Leo & Heidi Hendrikse
RD 7 Masterton 5887
New Zealand
[REDACTED]

Directions/Minute of the Commissioner #4

Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

Further to the previous minutes on this matter, I received via the Council on 1 November 2024, a request for acceptance of a late submission from Mr L Hayes dated 31 October 2024, indicating that Mr Hayes wished to be heard if there is a hearing.

A copy of that late submission is included in **Attachment 1**.

The timeframes set out in Minute #1 remain unchanged.

In order to establish some semblance of order, I am not willing to accept any further requests for acceptance of late submissions at this time. This is a matter of fairness to the Applicant in that their response to the requests received, is due on Monday 4 November 2024. Should the decision be made to accept the late submissions and/or the application to proceed to hearing, any person wishing to be involved in these proceedings can always give evidence with someone who has an accepted submission. I also note that in terms of submissions this is not a numbers game, but rather the cogency of any submissions that may be accepted.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 1 November 2024

ATTACHMENT 1 – Copy of Late Submission from Mr L Hayes

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Lance Hayes
Address:	353 Hughes Line, Carterton
Cell Phone:	
Email:	

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. I am a resident of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. I was not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so I am appreciative of the chance to make this late submission.
3. I have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. I endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. I endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. I request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and that the EPA has made its final decision for the Harmony Solar Farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.

In the event this application is subject to a Resource Consent Hearing, I wish to be heard in respect of my submission.

If others make a similar submission, I will consider presenting a joint case with them at the hearing.

Lance Hayes

31 October 2024

Directions/Minute of the Commissioner #5

Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

In Minute #4 I advised that I was not willing to accept any further requests for acceptance of late submissions at this time. However, prior to Minute #4 being issued, I received via the Council on 1 November 2024, a request for acceptance of a late submission from Mr R Terry and Ms N Goodin dated 1 November 2024, indicating that they wished to be heard if there is a hearing. As the request was received by Council prior to the issuing of Minute #4, I will accept the request for consideration of acceptance of a late submission.

A copy of that late submission is included in **Attachment 1**.

The timeframes set out in Minute #1 remain unchanged.

I reiterate that in order to establish some semblance of order, I am not willing to accept any further requests for acceptance of late submissions at this time, being 12 noon 1 November 2024 and refer the parties to the reasons set out in Minute #4.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 1 November 2024

ATTACHMENT 1 – Copy of Late Submission from Mr R Terry and Ms N Goodin

Late Submission for the Resource Consent Application – RM240005 Masterton Solar & Energy Storage Limited, SH2, Carterton

Submitter Details:

Name:	Roydon Terry and Naomi Goodin
Address:	542 Hughes Line, Carterton
Cell Phone:	[REDACTED]
Email:	[REDACTED]

Details of the Proposal to which this submission relates

Name of Applicant	Masterton Solar and Energy Storage Ltd t/a NZ Clean Energy Limited
Address of proposal	3954A State Highway 2, Waingawa , Masterton
Application No	RM240005
Description of Proposal	Establishing a utility-scale 100 megawatt (MW) renewable energy project, supported by battery energy storage systems (BESS) that will have a 100 MW / 200-400 megawatt hour (MWH) capacity. This will include erecting solar panels (photovoltaic / PV modules) via pile driving only, inverters, transformers, BESS, a substation, and a site office. It is proposed to occupy approximately 138ha of the subject site

Submission Statement

1. We are residents of the East Taratahi rural neighbourhood that surrounds the area for the Harmony Energy Solar Farm currently under appeal.
2. We were not aware that the NZ Clean Energy proposal had been publicly notified on 3 July, so I am appreciative of the chance to make this late submission.
3. We have read the submission of Paul and Helen Trotman sent on 21 October 2024.
4. We endorse Paul and Helen Trotman's concerns and endorse the conditions that our neighbourhood submitted to the Harmony Energy Fast Track application.
5. We endorse that these conditions are used as a starting point with further modifications as needed to respond to the cumulative effects in the East Taratahi rural neighbourhood.
6. We request that you defer this decision until the Environment Court has made its final decision for the Far North Solar Farm in Greytown and that the EPA has made its final decision for the Harmony Solar Farm in Carterton. These two decisions have the potential to set a precedent for the consenting of solar farms nationally.

In the event this application is subject to a Resource Consent Hearing, we wish to be heard in respect of our submission.

If others make a similar submission, we will consider presenting a joint case with them at the hearing.

Roydon Terry and Naomi Goodin

1 November 2024

Directions/Minute of the Commissioner #6
Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

As set out in Minutes #1 to #5, I have received a number of requests for acceptance of late submissions, clarification as to some of those requests as to whether or not the party wishes to be heard and in what circumstances, and requests from submitters who filed submissions within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard to a request now to be heard and in what circumstances. In addition, I have now received in accordance with the timetable in Minute #1, the Applicant's response to the various requests and the reply statements from any of the parties making the original requests. All this material has, I have been advised by Council, been distributed to the parties.

Having reviewed all the material, I consider that there are number of legal matters raised by the parties, on which I would be assisted by an independent legal opinion as to the following;

- a) Do I have the power to make to make decisions under section 37(2) of the RMA, and if so, does the evidence before me support a direction under that subsection?
- b) As regards the request by L and H Hendrikse received on 25 October 2024, to change their request not to be heard as set out in their submission to now requesting to be heard, is it open to me to grant that request? If so, what factors should guide my consideration of their request?
- c) What factors should guide my decision whether or not to grant the application by a number of people seeking to lodge late submissions?

To advance these matters I direct the Council to engage an independent legal practitioner to address these questions. That opinion should be filed by 3pm on Tuesday 19 November 2024. On receipt of that opinion, the Council is to provide that opinion to myself and all the parties.

When I have that opinion, as set out in Item #7 of Minute #1, I will proceed to prepare a decision on whether or not the late submissions are accepted and the additional requests from submitters who filed submission within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard, to a request now to be heard and in what circumstances.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 14 November 2024

Directions/Minute of the Commissioner #7

Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

This morning, following the issuance of Minute #6 of today's date, I received a phone call from Council officers, advising that at 9.35pm last evening, the Council received an email from Counsel for NZCE, which included an Addendum to Counsel's Memorandum dated 4 Nov 2024. I deliberately told Council officers not to forward the email or addendum to me.

In Minute #1, I clearly set out the process and timetable for the parties to provide their views. That period is now closed. It is not appropriate for any additional information to be provided now, as the receipt of any such information would not be fair to the other parties.

As set out in Minute #6 from this morning, the direction for an independent legal opinion and timetable for its lodgement remains unchanged.

Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 14 November 2024

Directions/Minute of the Commissioner #8
Application Number: 240005

Application by Masterton Solar and Energy Storage Ltd for Land Use Consent for a 100-megawatt renewable energy project, being the establishment of an agrivoltaics development (Solar Farm) including solar panels, inverters, transformers, battery energy storage system, a substation, a site office and connection to nearby Masterton Substation, located at 3954A State Highway 2, Carterton.

1. As set out in Minutes #1 to #5, I have received a number of requests for acceptance of late submissions, together with, in relation to some of those requests advice as to whether or not the party wishes to be heard and in what circumstances, and requests from submitters who filed a submission within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard, to a request now to be heard and in what circumstances. In addition, I have now received in accordance with the timetable in Minute #1, the Applicant's response to the various requests¹ and the reply statements from any of the parties making the original requests. All this material has, I have been advised by Council, been distributed to the parties.
2. On review of all the information provided, I requested in Minute #6 dated 14 November 2024 an independent legal opinion to as to a number of legal matters. That opinion from Mr T Robinson, a barrister from Napier was received by Council on 18 November 2024 and distributed to the parties. On the same date, via Minute #7 I declined to accept an Addendum to Counsel's Memorandum from Counsel for New Zealand Clean Energy (**NZCE/the Applicant**) as being outside the process and timetable specified, as well as being inappropriate and not fair to the other parties.
3. As I indicated in Item #7 of Minute #1, I have prepared a procedural decision on whether or not;
 - a. *the late submissions are accepted; and*
 - b. *the requests from submitters who filed submission within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard, to a request now to be heard and in what circumstances, are accepted.*
4. Firstly, to expand on the background as to the process of the application, the application was publicly notified on 3 July 2024 with the submission period closing on 30 July 2024. At the close of the submission period, three (3) submissions had been lodged. Two submissions were in opposition, with the submitters C Emerson (S1) (Lodged 25 July 2024) and L and H Hendrikse (S2) (Lodged 27 July 2024) not wishing to be heard and one submission in support from W R Telford (S3) (Lodged 10 July 2024) who wished to be heard. Mr Telford later withdrew his wish to be heard (12 August 2024) and similarly the Applicant indicated that with only one submission wishing to be heard that was in support, it would accept the decision of Council on whether or not to proceed to hearing. With the submitters not wishing to be heard, and the applicant neutral on the matter, the application moved to be considered without a hearing under section 100 of the Resource Management Act (**RMA**), in line with the Council's delegation manual, however, the decision-making power was to remain with the independent hearing commissioner.
5. A draft section 42A of the RMA (**section 42A**) report from Council's independent planning consultant had been prepared and as decision maker I sought additional work

¹ Masterton Solar and Energy Storage Ltd (trading as New Zealand Clean Energy Limited (NZCE)) Applicants' Memo – Chapman Tripp – Dated 4 November 2024.

to be conducted to address various matters on 27 September 2024. I received a revised section 42A Report on 9 October 2024 and responded to Council on 14 October 2024 that additional further work to the report was required. That additional work was then progressed.

6. As set out in Minutes #1 to #5 a series of requests for acceptance of late submissions were received by Council, along with requests from submitters who filed submission within the notification period (3 July 2024 to 30 July 2024) to change their position not to be heard, to a request now to be heard and in what circumstances.
7. For completeness I have set out those requests for acceptance of late submission and date received by Council in the following table. For convenience I have numbered the requests 4 – 25 and for the purpose of this minute referred to them as late submissions/submitters. The submissions received in the formal submission period from C Emerson, L and H Hendrikse and W R Telford are numbers S1 - S3 respectively.

Request #	Name	Date Received
4	P and H Trotman	21/10/2024
5	M and P Cowgill	21/10/2024
6	H Pocknall and M Hewitt	22/10/2024
7	J Greathead	22/10/2024
8	S MacArthur	22/10/2024
9	G & R Fisher	22/10/2024
10	I Hamilton and R Whewell	22/10/2024
11	P Isaac	25/10/2024
12	M and J Atkinson	25/10/2024
13	R Hughes and D McDonald	26/10/2024
14	R Schofield	26/10/2024
15	D Hettige	27/10/2024
16	M Leerschool	28/10/2024
17	J Jay	28/10/2024
18	S van Steensel	28/10/2024
19	F van Steensel	28/10/2024
20	R Jay	28/10/2024
21	M and J Guerrero	28/10/2024
22	C Neerincx	28/10/2024
23	S Johnstone	29/10/2024
24	L Hayes	31/10/2024
25	R Terry and N Goodin	1/11/2024

8. I sought clarification, via Minute #1, from those late submitters that had not indicated whether or not they wish to be heard (Numbers 4 – 12). I received a variety of responses including, a wish to be heard, a wish to be heard if hearing held, wish to be heard if others make a similar submission, and a preference to be heard but willing to forgo being heard if Applicant not palatable to hearing and late submission accepted with further time to additional information to be filed. I did not receive a direct response to my request for clarification from some parties. I record that Ms Tancock, Counsel

for P and H Trotman (4), indicated in her memo of 29 October 2024, that the Trotmans had canvassed some of the parties requesting acceptance of a late submission and that those parties wanted same outcome as the Trotmans (6, 7, 9, 10, 11, 13, 22 and 23)². Request numbers 14 – 25 all requested to be heard if there was a hearing.

9. In paragraph 3 above I listed the submissions (S1, S2 and S3) received within the notification period of 3 July to 30 July 2024. On 29 October 2024, I received a request L and H Hendrikse (S2) to change their submission to a wish to be heard. Having received that request, I sought via Minute #3, advice whether C Emerson (S1) or W R Telford (S3), the other within the notification period submitters, sought to change their position on whether or not they wished to be heard. C Emerson did not respond. W R Telford on 30 October 2024 advised that he now wished to be heard and then clarified on 31 October 2024, that he only wished to be heard if there was a hearing.
10. In terms of positions as to reasons as to whether to accept the late submissions I received a memo from Ms Tancock of behalf of P and H Trotman dated 29 Oct 2024 and similarly I received a memo from Ms Lampitt and Ms Tomkins, counsel for NZCE (**Counsel for NZCE**) on 4 November 2024. I record that the memo from Ms Tancock did not address the change in their wish to heard by L and H Hendrikse (S2) other than to indicate that this was separate matter that I need to consider³. However, Counsel for NZCE did address this matter⁴.
11. On 11 November 2024, as per the timetable set out in Minute #1 I received reply statements from Ms Tancock on behalf of the Trotmans and J Greathead, along with various attachments. The memorandum from Ms Tancock, records that the comments in the memo are also on behalf of Request numbers 5, 6, 8, 9, 10, 12, 21 and 23; and L and H Hendrikse (S2)⁵. Again, this material was distributed to the parties.

Position of the Parties

12. On behalf of the Trotmans, Ms Tancock's initial position was for the acceptance of their late submission while considering their position as to the deficiency of the public notification process⁶. Ms Tancock's next memorandum set out the considerations under section 37A as to acceptance of late submissions and sought that consideration should be given to renotifying the application under section 37(2)(b)⁷. In reply, Ms Tancock sought directions to;

a. A waiver under s37(2)(a) RMA to the need to comply with the timeframe to provide submissions, allowing the late submissions to be accepted.

b. Directions under s37(2)(b) RMA to rectify the procedural omissions in the public notification process, in a way which allows for the would-be submitters involvement to be accepted.⁸

² P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 29 Oct 2024, Paras 5- 6.

³ P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 29 Oct 2024, Para 3

⁴ Masterton Solar and Energy Storage Ltd (trading as New Zealand Clean Energy Limited (NZCE)) Applicants' Memo – Chapman Tripp – Dated 4 November 2024, Paras 49 - 53

⁵ P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 11 November 2024, Para 2

⁶ P Tancock, Covering Letter on behalf of Mr and Mrs Trotman, Dated 21 October 2024, Paras 1-2

⁷ P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 29 October 2024.

⁸ P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 11 November 2024, Para 51

13. As I recorded above, there were a number of parties seeking for late submissions to be accepted, that were also addressed via Ms Tancock's memoranda. In addition, there were the remainder of those late submitters who, understandably without specific reference as to what section of the RMA should be used, sought that their late submission should be accepted.
14. I have recorded above, the position of L and H Hendrikse and W R Telford (see paragraph 9) and hence do not repeat it here.
15. The position of the Applicant, as set out in the memorandum of Counsel for NZCE is opposition to the requests for acceptance of the late submissions and the late request to be heard, with requested directions as to;

54.1 There will be no waiver of the time limit for filing the Late Submissions and that those submissions will not be accepted; and

54.2 The 'in time' submitter's positions with respect to being heard as set out in the written submissions received within the original notification period will stand and the application will be determined on the papers.⁹

Decisions

16. In terms of the matters before me, I have been assisted in reaching my procedural decisions by those lodging the requests and Counsel representing the those making the requests, Counsel for the Applicant, and the independent legal practitioner. In addition, I have carefully considered all of the matters raised by the parties in the information provided.
17. Firstly, I consider that I need to address the request to now be heard by L and H Hendrikse (S2), before moving onto the decision as to acceptance or not of the request for late submissions and other relief sought.
18. As set out above, L and H Hendrikse (S2) made a submission within the notification period, indicating that they were opposed to the proposal, but did not set out any reasons for that opposition in the submission form. I record that in their request of 29 October 2024 to change their position to one of wishing to be heard, they also did not provide any reasons as to their opposition to the proposal or their reasons for now making the request to be heard.
19. I have considered the arguments for and against of Ms Tancock, Counsel of NZCE and Mr Robinson. On balance, I decline the request of L and H Hendrikse (S2) to now be heard. I accept the opinion of Mr Robinson, that to change their mind almost three months after the close of submissions it is not timely and hence that pathway is not open to me¹⁰. Even if that pathway were open to me, I do not accept the change for the reasons of the delay since the close of submissions and the absence of specificity in the submission as to reasons for opposition to the proposal or in the request to now be heard.
20. The second matter is the directions sought under section 37(2) of the RMA from Ms Tancock, on behalf of the Trotmans and others, that due to a claimed deficiency in the

⁹ Masterton Solar and Energy Storage Ltd (trading as New Zealand Clean Energy Limited (NZCE)) Applicants' Memo – Chapman Tripp – Dated 4 November 2024, Paras 54 – 54.2 Footnote omitted

¹⁰ Legal Opinion, T Robinson, Dated 19 November 2024, Para 34

public notification process. Mr Robinson does not consider that I have been delegated powers to make decisions under that section of the RMA on behalf of Council¹¹. I have reviewed the delegations and concur with Mr Robinson for the reasons set out in his opinion, that I do not have those powers. Again, if I am incorrect as to the delegation and I am able to make the directions sought, I decline them for the reasons set out in the opinion of Mr Robinson¹². In reaching that decision I carefully considered the arguments advanced by Ms Tancock and those requesting acceptance of late submissions, however, on balance I am not persuaded. In addition, I have considered the arguments advanced by Counsel for NZCE in reaching this determination.

21. That leaves as the third matter, a procedural decision on the acceptance of the 22 late submissions. Ms Tancock and Counsel for NZCE advanced arguments in terms of whether to allow the late submissions in terms of some of the matters in s37 and s37A of the RMA. However, Mr Robinson's view is that I do not have power to grant the requests for acceptance of the late submissions, as an extension of time (section 37(1)(a)) or as wavier (section 37(1)(b)) as under section 37A(5) the Applicant has not agreed to the extension. Mr Robinson did not make a distinction between an extension or a wavier¹³, and I adopt that reasoning. The first request for acceptance of a late submission was 21 Oct 2024, and as noted by Mr Robinson, is some 58 working days following the close of the submission period. That would result in a period of 38 working days more than a period of twice maximum specified for consideration under section 37A(4) in which special circumstances would apply, as advanced by Ms Tancock¹⁴. I also observe that the timeframe would be even longer if the date on which the last request for acceptance of a late submission, namely 1 November 2024, was considered. Adopting the reasoning of Mr Robinson, I find that I cannot grant the wavier or extension as a matter of law.
22. In the event that decision is wrong, I have also turned my mind to the merits of the matter and in particular the criteria in section 37A(1), which states:
 - (1) *A consent authority or local authority must not extend a time limit or waive compliance with a time limit, a method of service, or the service of a document in accordance with section 37 unless it has taken into account—*
 - (a) *the interests of any person who, in its opinion, may be directly affected by the extension or waiver; and*
 - (b) *the interests of the community in achieving adequate assessment of the effects of a proposal, policy statement, or plan; and*
 - (c) *its duty under section 21 to avoid unreasonable delay.*
23. I found the analysis of the criteria and summary of arguments for and against as set out in the opinion of Mr Robinson, helpful in distilling the issues advanced by the parties. I have also considered the arguments advanced by Ms Tancock and others seeking acceptance of the late submissions and the Applicant in opposition. Having considered all the arguments put before me, on balance, taking into account the three criteria of s37A(1), I decline to accept the requests for late submissions. Based on the opinion of Mr Robinson, I find there is clear prejudice to the Applicant noting the

¹¹ Legal Opinion, T Robinson, Dated 19 November 2024, Para 16

¹² Legal Opinion, T Robinson, Dated 19 November 2024, Paras 17 - 26

¹³ Legal Opinion, T Robinson, Dated 19 November 2024, Paras 54 - 69

¹⁴ P Tancock, Memo on behalf of Mr and Mrs Trotman, Dated 29 November 2024, Para 7(e)

legislative intention is that late submissions not extend the process more than a month, whereas this is an almost three month delay. Although the late submitters are not at fault, equally, the evidence does not establish the contention that notification was defective. While I accept that the late submissions would result in reaching a better informed decision, I consider that the combination of the clear prejudice to the Applicant and the legislative intention as to late submissions, outweighs the benefits of accepting the late submissions and hence the delay is unreasonable.

Next Steps

24. Having made those decisions, the matter is not to advance to a hearing. Council is to prepare a section 42A Report for the application that is to be provided to me by 3pm Friday 29 November 2024. That section 42A Report is to include an analysis of any cumulative effects in combination with the two consented solar farms in the area, along with the Harmony proposal for the reasons in Mr Robinson's opinion¹⁵.
25. I will then make a determination as to the decision. That decision is anticipated to be available on or before Friday 6 December 2024.
26. Any correspondence to the Commissioner should be directed through Ms Suzanne Zabell, Hearings' Administrator at CDC (buildingadmin@cdc.govt.nz).



Mark St.Clair
Independent Commissioner - Chair
Date 22 November 2024

¹⁵ Legal Opinion, T Robinson, Dated 19 November 2024, Paras 81 - 91