Application for a project to be referred to an expert consenting panel

(Pursuant to Section 20 of the COVID-19 Recovery (Fast-track Consenting) Act 2020)

For office use only:

Project name: Marton Solar Farm
Application number: PJ-0000863
Date received: 17/02/2023

This form must be used by applicants making a request to the responsible Minister(s) for a project to be referred to an expert consenting panel under the COVID-19 Recovery (Fast-track Consenting) Act 2020.

All legislative references relate to the COVID-19 Recovery (Fast-track Consenting) Act 2020 (the Act), unless stated otherwise.

The information requirements for making an application are described in Section 20(3) of the Act. Your application must be made in this approved form and contain all of the required information. If these requirements are not met, the Minister(s) may decline your application due to insufficient information.

Section 20(2)(b) of the Act specifies that the application needs only to provide a general level of detail, sufficient to inform the Minister's decision on the application, as opposed to the level of detail provided to an expert consenting panel deciding applications for resource consents or notices of requirement for designations.

We recommend you discuss your application and the information requirements with the Ministry for the Environment (the Ministry) before the request is lodged. Please contact the Ministry via email: fasttrackconsenting@mfe.govt.nz

The Ministry has also prepared Fast-track guidance to help applicants prepare applications for projects to be referred.

Part I: Applicant

Applicant details

Person or entity making the request: Harmony Energy NZ #3 Limited

Contact person: Pete Grogan

Job title: Director

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Postal address: C/o Campbell Tyson, 1 Wesley Street, Pukekohe 2340

Address for service (if different from above)

Organisation: 4Sight Consulting

Contact person: Christina Walker

Job title: Hamilton Manager and Principal Planner

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Postal address: PO Box 911 310, Victoria Street West, Auckland 1142

Part II: Project location

The application: does not relate to the coastal marine area

If the application relates to the coastal marine area wholly or in part, references to the Minister in this form should be read as the Minister for the Environment and Minister of Conservation.

Site address / location:

A cadastral map and/or aerial imagery to clearly show the project location will help.

379 Pukepapa Road, 196 And 122 Whales Line, Marton, Manawatu-Wanganui, 4787, New Zealand
Shape file will be submitted separately.

Legal description(s):

A current copy of the relevant Record(s) of Title will help.

Lot 1 DP 310560 and Lot 6A Application Plan 1550 Pt Secs 1-3 5 Rangitikei Agricultural Reserve

Registered legal land owner(s):

P B McAlister (Lot 1 DP 310560)
and
C A Frecklington, I G Frecklington and ARS Trustee Company Limited (Lot 6A Application Plan 1550 Pt Secs 1-3 5 Rangitikei Agricultural Reserve)

Detail the nature of the applicant's legal interest (if any) in the land on which the project will occur, including a statement of how that affects the applicant's ability to undertake the work that is required for the project:

The Applicant has a registered option over the land. It is free to exercise that option and will do so when consents are in place, there are no barriers to doing so. The option is in respect of an Easement Agreement over the land which contains all the land rights needed to construct and operate the solar farm for 35 years.

Part III: Project details

Description

Project name: Marton Solar Farm

Project summary:

Please provide a brief summary (no more than 2-3 lines) of the proposed project.

Establish an approximately 50MW (installed capacity of 65MW) solar farm located at 196 and 122 Whales Line and 379 Pukepapa Road, Marton. The activity is a significant scale renewable energy project and would be connected directly to the national electricity grid via the existing Transpower substation on the property at 362 Pukepapa Road, Marton.

Project details:

Please provide details of the proposed project, its purpose, objectives and the activities it involves, noting that Section 20(2)(b) of the Act specifies that the application needs only to provide a general level of detail.

The project is detailed on the preliminary plans attached. The preliminary overall layout of the solar farm is detailed on the attached Site Design Plan. **Note: details may vary following detailed design.**

1. The installation of approximately 103,000 monocrystalline solar panels with a total installed capacity of 65 MWp. The panels are 2.384m x 1.303m x 35mm. The panels will be mounted on arrays, being a mixture of full length (~40m long) and half length (~20m long), supported by pole driven mounting structures.
2. Each row of panel arrays will be a minimum clearance of 5m from the back edge of the row in front (i.e. to the north). The panels will be generally mounted approximately 800mm above relative ground level at the lower end and approximately 2.7-3mm above relative ground level at the higher end, with a mounting angle of 20 degrees. Cables are included within the panels and plug into one another. Cables are then trenched from the end of rows to the power station, from the power stations to the substation and transformer.
3. The inclusion of ancillary infrastructure to convert electricity generated into a format compatible with Transpower's transmission system will include approximately:
    1. 28 MV (medium voltage) power stations measuring approximately 6m (long) x 2.4m (wide) with a height of approximately 3.5m above ground level mounted on compacted soil and flagstone stone.
    2. Two substation buildings that resemble containers mounted on compacted soil and flagstone stone. The substation buildings will have dimensions of approximately 20m (long) x 3.5m (wide) and a height of 3.95m above ground level.
    3. 1 container-like structure, being 6m (long) x 2.4m (wide), and 3m above ground level, housing spare parts.
4. Deer-type security fencing with a height of approximately 2.5m around the perimeter of the solar farm and infra-red cameras and satellite dishes mounted on 3m high support poles located around the perimeter of the security fence.
5. An underground connection, within road reserve, to the national grid via the existing substation located on the adjacent property at 362 Pukepapa Road, Marton.
6. Provision for ongoing farming of the land around the solar panels, specifically, sheep grazing.
7. The restoration and planting of riparian areas of the Tutaenui Stream and boundary planting. The exact location and extent of planting will be confirmed as the detailed design of the project progresses.
8. Enabling earthworks will be required. Enabling earthworks will be for track construction (if required) and trenching for cabling.
9. Occasional educational visits to the site from school children/students and community groups to learn about solar energy generation.

Where applicable, describe the staging of the project, including the nature and timing of the staging:

N/A

Consents / approvals required

Relevant local authorities: Horizons Regional Council, Rangitikei District Council

Resource consent(s) / designation required:

Land-use consent, Water permit, Discharge permit

Relevant zoning, overlays and other features:

Please provide details of the zoning, overlays and other features identified in the relevant plan(s) that relate to the project location.

Legal description(s)	Relevant plan	Zone	Overlays	Other features
Lot 1 DP 310560 and Lot 6A Application Plan 1550 Pt Secs 1-3 5 Rangitikei Agricultural Reserve	Rangitikei District Plan	Rural Zone	N/A	N/A

Rule(s) consent is required under and activity status:

Please provide details of all rules consent is required under. Please note that Section 18(3)(a) of the Act details that the project **must not include** an activity that is described as a prohibited activity in the Resource Management Act 1991, regulations made under that Act (including a national environmental standard), or a plan or proposed plan.

Relevant plan / standard	Relevant rule / regulation	Reason for consent	Activity status	Location of proposed activity
Horizons Regional One Plan	Rule 14-19 Discharges of stormwater to surface water or land not complying with Rule 14-18 - There must be no discharge to any rare habitat, threatened habitat, at-risk habitat, or reach of a river or its bed with a Schedule B Value of Natural State	It is unclear whether water flowing off solar panels (and ancillary equipment) would constitute a stormwater discharge at this stage. Proposal may not comply with Rule 14-18. Compliance to be confirmed.	Restricted Discretionary	Entire site
Horizons Regional One Plan	Rule 13-2 Large-scale land disturbance, including earthworks - Except as regulated by Rules 13-6, 13-8 and 13-9, any land disturbance pursuant to s9(2) RMA of a total area greater than 2500 m2 per property per	Scale of earthworks/land disturbance to be confirmed. A site erosion and sediment control management plan will be submitted to Horizons Regional Council.	Controlled	Entire site

	12-month period and any ancillary: (a) diversion of water pursuant to s14(2) RMA on the land where the land disturbance is undertaken, or discharge of sediment into water pursuant to s15(1) RMA resulting from the land disturbance.			
Horizons Regional One Plan	14-30 Discharge of water or contaminants to land or water not covered by other rules In this Plan or chapter - The discharge of water or contaminants into surface water pursuant to s15(1) (a) RMA or discharge of contaminants onto or into land pursuant to ss15(1) (b), 15(1)(d) or 15(2A) RMA which are not regulated by other rules in this Plan, or which do not comply with the permitted activity, controlled activity or restricted discretionary activity rules in this chapter.	Default discharge rule. The proposal may not comply with the permitted activity, controlled activity or restricted discretionary activity rules in Chapter 14.	Discretionary	Entire site
Horizons Regional One Plan	Rule 17-22 - Activities that do not comply with permitted activity rule general conditions.	The proposal may not comply with the general conditions listed under Chapter 17.	Restricted Discretionary	Entire site
Horizons Regional One Plan	Rule 17-23 Activities that do not comply with permitted activity, controlled activity or restricted discretionary activity rules and all other s13(1) RMA activities not covered by this chapter.	Proposal may not comply with the permitted activity, controlled activity or restricted discretionary activity rules contained in Chapter 17.		
Rangitikei District Plan	Rule B7.19 The following are discretionary activities in the Rural Zone: c) Any renewable energy generation,	The proposal will trigger resource consent as a discretionary activity under the Plan for renewable electricity generation.	Discretionary	Entire site

	other than domestic scale wind turbines, including any new wind farm or extension to an existing wind farm			
Rangitikei District Plan	Rule B9.14-1 The following are restricted discretionary activities relating to transport: a) Any activity that would otherwise be a permitted activity, but which fails to comply with the permitted activity standards for transport.	The proposal may not comply with the permitted activity standards under Chapter B9.	Restricted Discretionary	Entire site
National Environmental Standard for Assessing and Managing Contaminants in Soil to Protect Human Health 2011	10(2)	A PSI is currently being undertaken on-site. It is uncertain if HAIL activities have occurred on the site where the proposed solar panels and associated soil disturbance is may occur. For the avoidance of doubt, consent is sought for soil disturbance on a piece of land where a DSI will exist and may show soil contamination exceeds the applicable standard in regulation 7. The consent authority will be given a copy of the DSI.	Restricted Discretionary	Entire site
National Environmental Standards for Freshwater 2020	Regulation 45 (1) - (5) - Construction of specified infrastructure	The proposal involves vegetation clearance and earthworks within, and within 10m of natural wetlands that is for the purpose of constructing specified infrastructure. The proposed earthworks will also result in a temporary discharge within 100m of natural wetlands.	Discretionary	Within and within10m and 100m of identified natural wetlands

Resource consent applications already made, or notices of requirement already lodged, on the same or a similar project:

Please provide details of the applications and notices, and any decisions made on them. Schedule 6 clause 28(3) of the COVID-19 Recovery (Fast-track Consenting) Act 2020 details that a person who has lodged an application for a resource consent or a notice of requirement under the Resource Management Act 1991, in relation to a listed project

or a referred project, must withdraw that application or notice of requirement before lodging a consent application or notice of requirement with an expert consenting panel under this Act for the same, or substantially the same, activity.

There are no current or previous resource consents or notices of requirements for this proposal.

Resource consent(s) / Designation required for the project by someone other than the applicant, including details on whether these have been obtained:

No designations or resource consents required by other parties. It is noted that upgrade may be required to the substation, however this will not be known until completion of the grid study. In the event upgrades are required these will be undertaken by Transpower and an outline plan/waiver of outline plan obtained as required. It is not anticipated that this will result in any delays in construction.

Other legal authorisations (other than contractual) required to begin the project (eg, authorities under the Heritage New Zealand Pouhere Taonga Act 2014 or concessions under the Conservation Act 1987), including details on whether these have been obtained:

N/A

Construction readiness

If the resource consent(s) are granted, and/or notice of requirement is confirmed, detail when you anticipate construction activities will begin, and be completed:

Please provide a high-level timeline outlining key milestones, e.g. detailed design, procurement, funding, site works commencement and completion.

On issue of consents, funding for the project will be raised and procurement will proceed. In regard to finance, the equity finance will be provided by Harmony Energy Limited. Harmony Energy Limited is a successful, well capitalised, UK based renewable energy project development business with strong links to New Zealand, specifically Pete Grogan who is a director is a kiwi living in NZ. Harmony recently raised £187m through an IPO on the London Stock Exchange and consequently it is in an extremely strong cash flow position. Harmony has over 500 MW of energy projects connected or under construction in the UK.

Debt finance for renewable energy projects is widely available in the banking market. Harmony has recently transacted with NatWest and Santander. Both banks have lent extensively against solar assets in Europe and Santander offers corporate banking services in Australasia. Harmony has had informal, early-stage discussions with Westpac, MUFG, Rabo Bank and ANZ and all lenders are enthusiastic about further discussions when consents are in place. In the UK Harmony has also raised debt finance against its UK assets with pension fund USS. Harmony is not anticipating any issues raising debt finance.

Harmony also has the option to collaborate with one of the partners it has worked with in the UK. Those partners include:

(1) FRV (www.frv.com/en/www.frv.com/en/)
(2) Tag Energy (https://www.tag-en.com/)
(3) BayWa (www.baywa.com)

The transactions Harmony has closed with Tesla, FRV and Tag Energy have been extensively reported on online.

Construction will begin within two years of the issue of consent.

Part IV: Consultation

Government ministries and departments

Detail all consultation undertaken with relevant government ministries and departments:

Ministry for the environment (MfE) – A meeting was held with Jacob Paget and Max Gander Cooper to provide an overview of the project and to discuss requirements for the MfE referral application and timeframes for lodgement. They advised that ecological and landscape matters should be discussed in detail in the application whereas matters like contamination and archaeology would only need high level comments. The NPS: HPL was discussed, and it was agreed that the project likely aligns with the specified infrastructure pathway under this document – additional comment on this is provided as an attachment to this application. The Applicant team advised that consultation is underway with a few parties including Transpower and Iwi.

Local authorities

Detail all consultation undertaken with relevant local authorities:

Rangitikei District Council – Initial discussions with Tiffany Gower (Team Leader) on applicability of specific rules under the Rural and Transportation chapters. Tiffany also advised to ensure that potential impacts on overland flow paths are accounted for. Council to advise requirements for trenching within the road reserve.
Horizons Regional Council – Preliminary discussions with Georgia Tyree (Team Leader) on regional rule triggers and applicability of the NES:FW. It was advised that poles and trenching may be required in wetlands of low value which can be facilitated by the NES:FW. Discussed the applicability of the NPS: HPL and agreed there was an appropriate pathway given that livestock grazing will still be undertaken on the site. Council are to confirm whether the watercourse has specific planting requirements.

Other persons/parties

Detail all other persons or parties you consider are likely to be affected by the project:

Transpower – The applicant has had extensive engagement with Transpower regarding connection to the substation.
Owners/occupiers of all adjacent properties including:

- 298 Makirikiri Road – J F C Henderson and P L Carter
- 365 Makirikiri Road – Home Ridge Limited
- 350 Whales Line Road – E D Mayo, J C Furness, J R Mayo
- 304 Whales Line Road – E D Mayo
- 335 Whales Line Road – Murjah Limited
- 269 Whales Line Road – E A Hopkinson and T G Harris
- 201 Whales Line Road – C D and J P McConachy
- 157 Whales Line Road – F R and M F Knox, T A Waight
- 95 Whales Line Road – C R Grace, P B Harre and S Grace
- 45 Whales Line Road – A E and R A Mizer
- 1500 Wellington Road – A M and J M Lambert (Fieldmart Trustee Company Limited)
- 1448 Wellington Road – C Brouwer and R G D Van Dijk
- Lot 1 and Lot 2 DP 411398 – C A and I G Frecklington (Lanarch Trust Limited)
- 356 Pukepapa Road – Transpower NZ Ltd
- 362 Pukepapa Road – Transpower NZ Ltd
- 364 Pukepapa Road – Transpower NZ Ltd
- 366 Pukepapa Road – Transpower NZ Ltd
- 365 Pukepapa Road – K W and R J P W Warner

Detail all consultation undertaken with the above persons or parties:

Consultation with these parties will be undertaken prior to an application to the EPA.

Part V: Iwi authorities and Treaty settlements

For help with identifying relevant iwi authorities, you may wish to refer to Te Kāhui Māngai – Directory of Iwi and Māori Organisations.

Iwi authorities and Treaty settlement entities

Detail all consultation undertaken with Iwi authorities whose area of interest includes the area in which the project will occur:

Iwi authority	Consultation undertaken
Ngā Wairiki Ngāti Apa	An email was sent on January 9, 2023, to introduce the project, invite preliminary feedback and invite input into the project development process. It is anticipated that iwi will provide a Cultural Impact Assessment that will be incorporated into the project development. A number of follow up emails and phone calls have also been made to all parties and the Applicant is currently seeking to arrange a meeting with any interested parties.
• Te Rūnanga o Raukawa Incorporated	An email was sent on January 9, 2023, to introduce the project, invite preliminary feedback and invite input into the project development process. It is anticipated that iwi will provide a Cultural Impact Assessment that will be incorporated into the project development. A number of follow up emails and phone calls have also been made to all parties and the Applicant is currently seeking to arrange a meeting with any interested parties.
Ngati Raukawa ki te Tonga Trust	An email was sent on January 9, 2023, to introduce the project, invite preliminary feedback and invite input into the project development process. It is anticipated that iwi will provide a Cultural Impact Assessment that will be incorporated into the project development. A number of follow up emails and phone calls have also been made to all parties and the Applicant is currently seeking to arrange a meeting with any interested parties.

Detail all consultation undertaken with Treaty settlement entities whose area of interest includes the area in which the project will occur:

Treaty settlement entity	Consultation undertaken
Te Rūnanga o Ngāti Awa	An email was sent on January 9, 2023, to introduce the project, invite preliminary feedback and invite input into the project development process. It is anticipated that iwi will provide a Cultural Impact Assessment that will be incorporated into the project development. A number of follow up emails and phone calls have also been made to all parties and the Applicant is currently seeking to arrange a meeting with any interested parties.

Treaty settlements

Treaty settlements that apply to the geographical location of the project, and a summary of the relevant principles and provisions in those settlements, including any statutory acknowledgement areas:

Section 18(3)(b) of the Act details that the project **must not include** an activity that will occur on land returned under a Treaty settlement where that activity has not been agreed to in writing by the relevant land owner.

Ngāti Apa (North Island) Claims Settlement Act 2010

Part VI: Marine and Coastal Area (Takutai Moana) Act 2011

Customary marine title areas

Customary marine title areas under the Marine and Coastal Area (Takutai Moana) Act 2011 that apply to the location of the project:

Section 18(3)(c) of the Act details that the project **must not include** an activity that will occur in a customary marine title area where that activity has not been agreed to in writing by the holder of the relevant customary marine title order.

N/A - not in CMA

Protected customary rights areas

Protected customary rights areas under the Marine and Coastal Area (Takutai Moana) Act 2011 that apply to the location of the project:

Section 18(3)(d) of the Act details that the project **must not include** an activity that will occur in a protected customary rights area and have a more than minor adverse effect on the exercise of the protected customary right, where that activity has not been agreed to in writing by the holder of the relevant protected customary rights recognition order.

N/A - not in CMA

Part VII: Adverse effects

Description of the anticipated and known adverse effects of the project on the environment, including greenhouse gas emissions:

In considering whether a project will help to achieve the purpose of the Act, the Minister may have regard to, under Section 19(e) of the Act, whether there is potential for the project to have significant adverse environmental effects. Please provide details on both the nature and scale of the anticipated and known adverse effects, noting that Section 20(2)(b) of the Act specifies that the application need only provide a general level of detail.

Landscape and Visual Effects:

A preliminary landscape assessment has been undertaken by Rachel Annan, Principal Landscape Planner, 4Sight Consulting. A copy of that assessment can be provided on request. The assessment sets out that a design led approach has been undertaken based on the characteristics of the site and receiving environment and will continue to be undertaken following further discussions with mana whenua. When considering the visual and landscape effects associated with the proposal, the assessment found that:

- The predominant land use in the vicinity of and including the application site is mixed use agriculture; both livestock and open pasture crop farming. The preliminary concept plan illustrates the location and alignment of streams and more ephemeral streams through the site area. With the exception of the two dwellings (with surrounding vegetation, adjacent farms sheds and ancillary buildings), limited scattered trees, pylons and overhead lines, the application site is open and broad without other notable defining features.
- Typical of a rural landscape setting just beyond a settlement area, a limited number of non-agricultural landscape features and elements of the surrounds include the infrastructure of the substation, pylons and transmission lines, local oxidation ponds, and a cattery and boarding kennels. Smaller land parcels of Crofton reflect rural residential and even large lot residential scale development, although not all allotments here have been developed as their zoning provides for.
- Intervening landform and existing vegetation was observed to afford very limited visibility between the application site and Crofton.
- At this stage in the project process, there are not any apparent fatal flaws with regards to landscape outcomes to establish a solar farm in this location. Design mitigation refinement can be undertaken if required to address any specific issues arising, such as in response to further assessment or consultation through subsequent design stages.
- Restoration planting is proposed for key waterways and overland flow paths onsite. Specific landscape mitigation measures have been incorporated into the design approach in relation to specific views from surrounding private and public property. For example, greater setbacks are provided in response to proximity and denser grouping of neighbouring dwellings.
- On the basis of project analysis and the design led approach to date, it is considered that there will be no significant adverse landscape effects of the proposal in this rural setting.

Ecological and Biodiversity Values and Effects:

The ecological values of the site and ecological effects of the proposal have been assessed by Andrew Briggs, Senior Ecologist, 4Sight Consulting and a memo has been prepared. The memo details the findings of the initial ecological

assessment of the vegetation and habitats within the site, including an assessment of the potential adverse effects of the proposal. Preliminary restoration opportunities within the site are still being investigated, the findings of which will be included in final report to submitted in the EPA application.
The site is predominantly rural and characterised by low gradient rolling pasture utilised for cattle and sheep grazing, whilst two barley fields, a wheat field, intermittent shelterbelts and standalone exotic trees are located within the project boundary.
Wetland habitat comprising primarily facultative wetland (FACW) and obligate (OBL) wetland species were scattered throughout the site, primarily within low points of the landscape. All of the wetlands identified were dominated by exotic species, were highly degraded and were of overall very low quality.
A single seasonally active stream, which flows in a general south easterly direction, was identified within the site and comprises elongated stagnant pools of turbid water. The stream is soft-bottomed and well vegetated. The stream has been modified through excavation, straightening, diversion, stock trampling as well as through the implementation of pipe culverts for road crossings. EDNA sampling was conducted within the stream, the forthcoming results of which should indicate which fish species are utilising the stream onsite. A small range of native fish are potentially utilising the watercourse. A macroinvertebrate sample was collected from both the stream, the results of which will be discussed in the forthcoming Ecological Effects Assessment report for the project.
In terms of native fauna, only common birds were seen or heard on site and it is highly unlikely that mokomoko (skinks and geckos) are present in high populations due to the limited availability of suitable habitat. The nearest known records of long-tailed bats was recorded in excess of 10km from the project site, however bat monitors have been deployed and the findings will be included in the full ecological assessment.
No pest animals or evidence of pest animals were observed during the site visit. It is likely that pest animals such as rats, possums, mustelids, hedgehogs, and feral cats are present within the general area.
A number of potential adverse ecological effects can be associated with the proposed solar farm, including construction works (sediment discharges from earthworks), stormwater run-off from impervious surfaces, reflection and glare off solar panels, and lighting and noise associated with on-site infrastructure. Earthworks and associated sediment discharges are expected to be limited in extent and appropriately managed through sediment and erosion control measures and appropriate timing of works (i.e. during the earthworks season).
As the solar panels themselves are built on steel frames, stormwater will flow off the panels and still reach the ground. Therefore, impervious surfaces will be restricted to access tracks and areas containing ancillary equipment buildings/containers. The remainder of the site remains in pasture suitable for sheep grazing. Assuming adherence to ongoing best practice stormwater management, incorporated via conditions of consent, all effects generated by permanent stormwater discharges will be able to be appropriately managed.
Security lighting is proposed around associated infrastructure on the site, any adverse effects on native fauna from the proposed lighting are considered negligible.
Overall, based on the initial assessment undertaken, it is considered that there will be no significant adverse effects on the ecological and biodiversity values associated with the site. Given the expected low level of effect, no specific recommendations or mitigation is necessary. If a net ecological value gain is desired, the following key initial recommendations include:

- Minimise vehicle movement and construction works within wetland habitat;
- Remove weeds and initiate vegetative restoration of stream banks;
- Fence-off/exclude the stream from stock to assist in passive restoration;
- If bats are detected, avoid removal of tree shelterbelts, where possible; and
- Avoid implementing new culvert crossings, where possible.

Construction Effects

- Construction traffic:

Construction involves the transport of the mounting poles, panels and ancillary infrastructure to the site in heavy vehicles. Such heavy vehicles are similar in size to that of dairy tankers and materials will be delivered to site incrementally (i.e. one to two truckloads at a time over a period of approximately 15-18 months). Likewise, some heavy machinery (e.g. post rammer) will delivered to site, but will remain there for the duration of works. All construction traffic will be managed through a Construction Traffic Management Plan (CTMP) and it is anticipated that all construction traffic effects can be appropriately managed so as not to be significant. The establishment of the

facility will take approximately 246,400 labour hours over a timeframe of 15-18 months. It is anticipated that construction staff will commute to the site via car or other light vehicle from the larger population centres including Whanganui, Palmerston North, Marton and Crofton where accommodation is available. The applicant is working with Iwi and the Council to maximise the use of local staff and resources.

- Noise and Vibration:

During construction, posts are driven into the ground using a post rammer. Once the poles are in situ, the solar panels are screwed in place. Ancillary infrastructure will either be constructed on site or pre-fabricated and transported to the site. Cabling will then be installed, with trenching required. It is anticipated that noise and vibration associated with all construction activities will comply with the relevant District Plan and New Zealand construction noise standards. Further, a condition of consent requiring a construction management plan is proposed to ensure all construction effects are appropriately managed. An acoustic assessment will be provided with the EPA application.
It is considered that any temporary adverse effects relating to construction, including traffic, noise, vibration, and staff housing, can be acceptably managed. There will not be any significant adverse effects as a result of the construction works.

Glint and Glare:

A Solar Photovoltaic Glint and Glare Study will be prepared by SLR, who have extensive experience in solar farm projects. The final assessment will be included in the application. Notwithstanding, the solar farm has been specifically designed and located to minimise potential glint and glare effects on surrounding dwellings and passing motorists, noting that solar panels absorb light rather than reflect it. Additional landscape screening will be provided via on-site planting to ensure any potential glint and glare effects are sufficiently mitigated from all potential sensitive receivers.
In summary, it is considered that adverse effects associated with glint and glare can be managed so as to avoid any significant adverse effects on road users or dwellings within the vicinity of the site.

Effects on Productive Land:

The solar panels will be pole driven into the ground, leaving the pasture underneath in place. Pasture is naturally retained as water runs off the panels and drains into the soil, and sunlight reaching ground level remains available due to the separation of the panels. This ensures that even while the solar panels are in-situ, the site can continue to be utilised for pastoral farming, more specifically, the grazing of sheep. The landowner (or a lessee) will continue to farm the land for this purpose. At the end of life of the solar panels (approximately 25-35 years), the panels can either be unscrewed and replaced, with the poles remaining in-situ, or the poles can be removed, and the land can be returned solely to farming activities. As such, any adverse effects on the productive potential of the land are considered to be negligible.

Contamination Effects

A Preliminary Site Investigation (PSI) is currently being undertaken by 4Sight Consulting. The draft findings of the PSI have indicated that it is highly unlikely that activities or industries listed on the HAIL have been conducted at the bulk of the site where the solar farm development will occur. However, HAIL activities may have occurred in a discrete locations on the site. Should the proposed earthworks encroach on these areas, or should any further contamination be discovered, a suitably qualified and experienced practitioner will be engaged to assess the identified contaminants and provide appropriate management measures. As such, it is considered that any actual or potential effects relating to land contamination will be suitably managed, and there will be no significant adverse effects on human health.

Archaeological Effects

No archaeological sites are located on the site or in the surrounds. Notwithstanding this an Archaeologist has been engaged and an Archaeological Risk Evaluation report will be provided to inform the next phases of the project.

Operational Effects:

The operational effects of the proposed solar farm are very limited. Equipment will primarily be monitored remotely, and a technician will visit the site approximately once a month to carry out a physical check of the infrastructure. In the initial stages, additional visits to the site will be required for plant maintenance, including weed control, but restoration areas will be designed so that they become self-sustaining. Additional traffic will also be generated because of ongoing pest control, unless this is carried out by the landowner.
Occasionally a bus load of school children or a community group may visit the site to undertake an educational tour of the facility. Any potential for adverse effects associated with the educational visits will be minimal given the expected frequency of visits and the distance to the adjacent dwellings. The visits can be managed to ensure that any potential for adverse effects are avoided or mitigated through conditions of consent limiting the occurrence and timing of visits.

The panels themselves do not produce any noise, however there will be an 'electrical hum' from inverters during daylight hours. The noise level produced will be well below the permitted noise standards and given the nature of the noise (continuous and low level) it is not anticipated that this will result in any discernible effects for neighbouring property owners/occupiers. In addition, the occasional educational visits may result in a low level of noise, however this is also anticipated to be well below permitted levels and unlikely to result in any adverse effects. It is anticipated that conditions of consent will be used to require all noise to comply with the District Plan standards.
Overall, it is considered that any potential for adverse amenity effects from the operation of the solar farm will be avoided, remedied or mitigated through requirements for industry best operational practices, with there being no significant adverse effects associated with the operation of the solar farm.

Cultural Effects:

As outlined in the summary of iwi consultation, the Applicant has commenced engagement with Nga Wairiki-Ngati Apa Charitable Trust, Ngati Raukawa ki te Tonga Trust and Te Rūnanga o Raukawa Inc and this will continue through detailed design and the life of the project. The design lead approach allows ample opportunity for cultural values to be expressed through design of the project and Cultural Impact Assessments may be provided at the discretion of the above parties.

Overall Assessment:

Overall, it is expected that the project will result in a low level or minimal adverse effects on the environment, with any potential for adverse effects able to be avoided, remedied or mitigated through design and/or management approaches. There are no significant adverse effects expected as a result of the project. Conversely, the positive effects arising from the project, including those associated with the proposed ecological restoration of the site, are considered to be significant.

Part VIII: National policy statements and national environmental standards

General assessment of the project in relation to any relevant national policy statement (including the New Zealand Coastal Policy Statement) and national environmental standard:

National Policy Statement for Renewable Electricity Generation

The National Policy Statement for Renewable Electricity Generation 2011 recognises the national significance of renewable electricity generation activities and provides for the development, operation, maintenance and upgrading of new and existing renewable electricity generation activities, such that the proportion of New Zealand's electricity generated from renewable energy sources increases to a level that meets or exceeds the New Zealand Government's national target for renewable electricity generation.
Through a process of site investigation in various areas of the country, Harmony Energy found that the Marton site is an ideal site for solar electricity generation due to its proximity to a nearby grid connection, its accommodating topography and annual irradiance (the amount of light energy received). The proposal will result in very low levels of adverse effects, all of which can be adequately managed. Nonetheless, the applicant is proposing significant ecological restoration of the site. As such the proposal is considered to be consistent with the objectives of the National Policy Statement for Renewable Electricity Generation 2011.

National Policy Statement for Highly Productive Land (NPS: HPL)

The site is predominately LUC 3 and is therefore classified as highly productive land. The proposal is therefore subject to consideration of the requirements of the NPS: HPL .
A legal opinion and planning memo are appended to this application outlining the implications of the NPS: HPL for the project and the consenting pathways that are available for establishment of the solar farm on the land.

National Policy Statement on Freshwater Management (NPS: FM)

The National Policy Statement for Freshwater Management 2020 (NPSFM) sets a national policy framework for managing freshwater quality and quantity. It seeks to prioritise the well-being of water bodies and freshwater systems, health and needs of people, and the well-being of communities now and in the future. The policies, relevant to this proposal, seek to ensure there is no further loss of extent of natural inland wetlands, their values are

protected, and their restoration is promoted, habitats of indigenous freshwater species and freshwater values are improved.
In this case, some of the proposed solar panels and associated installation works will be undertaken in wetlands environments. These wetlands have been assessed as 'low quality' as they are predominantly boggy paddocks. It is noted that these identified wetlands may be excluded from the definition of 'natural inland wetland'.
Notwithstanding, the panels will be mounted on poles that will result in minimal damming and diversion of water flows and will pile driven with minimal earthworks required. Any temporary effects associated with required earthworks, predominantly trenching for cabling, can be suitably managed through appropriate erosion and sediment control measures. In addition, restoration planting in riparian areas will provide additional habitats for indigenous species and will improve freshwater values of the surrounding catchment. For these reasons, the proposal is not contrary to the NPS: FM.

National Environmental Standards for Assessing and Managing Contaminants in Soil to Protect Human Health (NES: CS) and National Environmental Standards for Freshwater (NES:F)

The relevant provisions of these statutory documents have been considered as part of this proposal and, with regard to the conclusions reached in the adverse effects sections, it is considered that any adverse effects relating to human health and freshwater can be suitably managed to the extent they will not be significant. As such, the proposal is considered to be consistent with these statutory documents.

Part IX: Purpose of the Act

Your application must be supported by an explanation how the project will help achieve the purpose of the Act, that is to "urgently promote employment to support New Zealand's recovery from the economic and social impacts of COVID-19 and to support the certainty of ongoing investment across New Zealand, while continuing to promote the sustainable management of natural and physical resources".

In considering whether the project will help to achieve the purpose of the Act, the Minister may have regard to the specific matters referred to below, and any other matter that the Minister considers relevant.

Project's economic benefits and costs for people or industries affected by COVID-19:

Details of the proposal's job creation are set out in the 'Marton Solar Project Work Phases and Job Creation' report prepared by GreenEnco Limited which is attached. A summary of the details of this report are outlined below under Job creation/employment.
The project will generate flow-on effects for the surrounding community, increasing accommodation demand and other economic benefits to the community.

Project's effects on the social and cultural wellbeing of current and future generations:

The economic benefits of the employment opportunities outlined above will contribute to the overall wellbeing of the wider area, assisting in reducing the rates of poverty.
Currently New Zealand is experiencing increased electricity scarcity and costs, which disproportionately impacts lower socio-economic communities. The project will assist in addressing this issue through an increase in both electricity supply and security.
In regard to cultural wellbeing, the Applicant has commenced engagement iwi and will ensure their values and aspirations are reflected in the proposal.
Lastly, there are ancillary social benefits that will arise by opening the site to schools and community groups for educational purposes.

Whether the project would be likely to progress faster by using the processes provided by the Act than would otherwise be the case:

The proposal represents a large solar farm project in the current New Zealand context. For this reason, there is the potential for the doubling of timeframes due to scale and complexity and public notification of the proposal under 'special circumstances', which would result in delays to the project. In addition, given the relative 'newness' of large

scale solar technology in New Zealand there is a risk that a lack of expertise and experience both within local government and the community could result in unnecessary delays through the traditional consenting pathways. Under a traditional consenting process, the requirement for doubling of timeframes, public notification and a hearing could result in a processing time of some 200 days (excluding any delays due to further information requests). This time could be at least doubled in the event of an appeal.
Consequently, it is considered likely that the project will progress faster under the Fast Track process than the traditional RMA consenting pathway.

Whether the project may result in a 'public benefit':

Examples of a public benefit as included in Section 19(d) of the Act are included below as prompts only.

Employment/job creation:

As noted above, GreenEnco considers that the total duration for engineering, procurement and construction will be in the range of 15 – 18 months. The labour hours listed for the operation, maintenance and asset management are long term (rather than construction jobs) and are required for the design life of the Project (35 years).
Job creation is provided in two scenarios – 12-month and 18-month construction period:
Phase 1: Engineering, Procurement and Construction

- 12-month construction period = 270,060 total labour hours / total working hours (2,080) = 130 people working full time
- 18-month construction period = 270,060 total labour hours / total working hours (3,120) = 87 people working full time

Phase 2: Operation, Maintenance, Asset Management

- Life of project (35 years) = 10,128 total labour hours / total working hours in year (2,080) =

5 people working full time
Please note that there will be additional job creation associated with ecological restoration, however as detailed restoration plans are yet to be complete it is not possible to give an accurate estimate of this. Further, it is highly likely there will be indirect job creation associated with freight, local accommodation and food providers; however, we have not speculated as to the extent of these.

Housing supply:

The proposal will have no direct impact on the supply of housing in the area. However, the positive economic impact is considered likely to stimulate additional housing development in the wider area.

Contributing to well-functioning urban environments:

Currently, New Zealand has an energy shortage and is importing coal to generate energy. A stable and secure supply of energy is necessary for well-functioning urban environments and to support commerce.
Urban environments rely on successful commercial ecosystems that create a demand for housing and consumer products.
As noted elsewhere, the proposal will provide the following benefits:

- Increase economic activity
- Diversify the productive potential of the area
- Increase the electricity security for the area.

As such, the proposal is considered to have both direct and indirect benefits on the wellbeing and function of the nearby urban environments.

Providing infrastructure to improve economic, employment, and environmental outcomes, and increase productivity:

A secure supply of electricity sufficient to meet the demands of the population is essential to ensuring economic success and productivity. New Zealand's energy demand has been growing steadily and growth is forecast to continue. Demand growth is currently outstripping the growth in supply, exacerbating the risk of outages and an increasing reliance on imported coal.

As such, the proposed solar farm (and others like it) is crucial to the efficient delivery of clean energy over the next 30 years. Further, the proposal will contribute to the strategic target that 90 per cent of electricity generated in New Zealand should be derived from renewable energy sources by 2025 and 100% by 2030.

Improving environmental outcomes for coastal or freshwater quality, air quality, or indigenous biodiversity:

Solar farms frequently provide an opportunity to enhance and increase biodiversity across the farm and within the immediate surrounding landscape. By utilising the core design values, an opportunity arises to enhance and increase biodiversity across the farm and within the immediate surrounding landscape. Specifically, the proposal will result in the enhancement and protection of the riparian margins of the Tutaenui Stream and wetland areas. This will improve freshwater quality within the site.

Minimising waste:

N/A

Contributing to New Zealand's efforts to mitigate climate change and transition more quickly to a low-emissions economy (in terms of reducing New Zealand's net emissions of greenhouse gases):

New Zealand must confront two major energy challenges as it meets growing energy demand. The first is to respond to the risks of climate change by reducing greenhouse gas emissions caused by the production and use of energy. The second is to deliver clean, secure, affordable energy while treating the environment responsibly.
Solar farming has the lowest emissions of CO2 per kilowatt of energy generated, with only 6 grams of CO2 produced per kilowatt of energy. By comparison, onshore wind produces 10 grams, hydro power 97 grams, and coal 109 grams (2017. Arvesen, Humpenoder, Pepp et.al). Further, the components used in the manufacture of solar energy (e.g. steel, glass, copper, cobalt) can all be recycled at the end of life.
As such, an increase in solar energy infrastructure and resulting decrease in reliance on coal or new hydro will directly result in the lowering of New Zealand's carbon emissions relative to kilowatts of energy produced.
The proposed solar farm will address this second challenge by contributing to central government strategic target that 90 per cent of electricity generated in New Zealand should be derived from renewable energy sources by 2025 and 100% by 2030.

Promoting the protection of historic heritage:

N/A

Strengthening environmental, economic, and social resilience, in terms of managing the risks from natural hazards and the effects of climate change:

Solar farms are resilient to climate effects as they are less dependent on weather conditions compared to other renewable energy alternatives such as wind and hydro (solar works on cloudy days and the sun comes up every day). Additionally, solar farms can be located away from high-risk areas (such as the coast). With solar panels sitting at approximately 800mm-1m from the ground (on the low edge) and all containers and ancillary equipment being mounted on compacted soil and flagstone, solar farms are also resilient to flood impacts. Solar farms provide resilience through diversification of land uses, as they allow for dual use of land. Sheep can be grazed, or crops grown without compromising the generation of clean electricity. Additionally, solar farms are not permanent and can be dismantled easily with very little impact on the land, therefore allowing for flexibility in the site for the future.
The project will generate enough power to meet electricity requirements of approximately 10,000 homes each year and creates additional employment opportunities in the local area. It will also provide opportunities for on-site education in relation to solar energy generation and biodiversity.

Other public benefit:

The solar farm project provides the opportunity for educational and school visits to provide the public with information on solar farms, and renewable energy in general, and how they can generate better environmental outcomes.

Whether there is potential for the project to have significant adverse environmental effects:

The proposal is not considered likely to result in any adverse effects that are significant. Rather the proposal will result in positive on-site ecological effects, through ecological restoration. This is discussed in detail in Part VI of this form.

Part X: Climate change and natural hazards

Description of whether and how the project would be affected by climate change and natural hazards:

It is recognised that with climate change, increases in heavy rainfall could be a threat, putting pressure on drainage and stormwater systems and increasing the risk of flooding. However, it is noted that flooding will likely only be a risk to ancillary equipment given that the solar panels sit well above ground level. The risk to ancillary equipment can be mitigated through its placement on piles or a concrete footing, to provide clearance from the natural ground level.
A full Geotech report is yet to be completed, however the land is largely flat and is not notated as being subject to any natural hazards on the Council mapping system. Further, the land underneath the panels will remain as permeable farmland. It is intended that the solar farm infrastructure will be offset from existing farm drains, which are to be enhanced through riparian planting. Overall, the hydrology of the site will be improved through the retirement of land for restoration planting.
Lastly, it is noted that solar power is less susceptible to climate change than some other renewable energy alternatives. This is because it is less weather dependent than wind and hydro (solar works on cloudy days and the sun comes up every day) and can be located away from high risk areas (such as the coast).

Part XI: Track record

A summary of all compliance and/or enforcement actions taken against the applicant by a local authority under the Resource Management Act 1991, and the outcome of those actions:

Local authority	Compliance/Enforcement Action and Outcome
No details	

Part XII: Declaration

I acknowledge that a summary of this application will be made publicly available on the Ministry for the Environment website and that the full application will be released if requested.

By typing your name in the field below you are electronically signing this application form and certifying the information given in this application is true and correct.

Christina Walker	17/02/2023
Signature of person or entity making the request	**Date**

Important notes:

- Please note that this application form, including your name and contact details and all supporting documents, submitted to the Minister for the Environment and/or Minister of Conservation and the Ministry for the Environment, will be publicly released. Please clearly highlight any content on this application form and in supporting documents that is commercially or otherwise sensitive in nature, and to which you specifically object to the release.

- Please ensure all sections, where relevant, of the application form are completed as failure to provide the required details may result in your application being declined.
- Further information may be requested at any time before a decision is made on the application.
- Please note that if the Minister for the Environment and/or Minister of Conservation accepts your application for referral to an expert consenting panel, you will then need to lodge a consent application and/or notice of requirement for a designation (or to alter a designation) in the approved form with the Environmental Protection Authority. The application will need to contain the information set out in Schedule 6, clauses 9-13 of the Act.
- Information presented to the Minister for the Environment and/or Minister of Conservation and shared with other Ministers, local authorities and the Environmental Protection Authority under the Act (including officials at government departments and agencies) is subject to disclosure under the Official Information Act 1982 (OIA) or the Local Government Official Information and Meetings Act 1987 (LGOIMA). Certain information may be withheld in accordance with the grounds for withholding information under the OIA and LGOIMA although the grounds for withholding must always be balanced against considerations of public interest that may justify release. Although the Ministry for the Environment does not give any guarantees as to whether information can be withheld under the OIA, it may be helpful to discuss OIA issues with the Ministry for the Environment in advance if information provided with an application is commercially sensitive or release would, for instance, disclose a trade secret or other confidential information. Further information on the OIA and LGOIMA is available at www.ombudsman.parliament.nz.

Checklist

Where relevant to your application, please provide a copy of the following information.

No	Correspondence from the registered legal land owner(s)
No	Correspondence from persons or parties you consider are likely to be affected by the project
No	Written agreement from the relevant landowner where the project includes an activity that will occur on land returned under a Treaty settlement.
No	Written agreement from the holder of the relevant customary marine title order where the project includes an activity that will occur in a customary marine title area.
No	Written agreement from the holder of the relevant protected customary marine rights recognition order where the project includes an activity that will occur in a protected customary rights area.