

BEFORE THE TARARUA DISTRICT COUNCIL'S HEARING PANEL

IN THE MATTER of the Resource Management Act 1991

AND

IN THE MATTER of the applications by Energy Bay Limited to the Tararua District Council (202.2022.136.1) for resource consents to establish and operate a solar farm at 410 Managamaire Road, Pahiatua.

**STATEMENT OF EVIDENCE OF ANDREW WILLIAM
MORGAN ARCHIBALD FOR ENERGY BAY LIMITED**

DATED 16 AUGUST 2023

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Introduction and Qualifications

[1] My full name is Andrew William Morgan Archibald.

[2] I serve as the Investment Director and Co-Founder for both Energy Bay Limited and Energy Bay Pty (referred to together here as **Energy Bay**), which are impact investment funds operating in New Zealand and Australia. I've held the position since 2021 and 2017 respectively. Energy Bay Limited is registered in New Zealand, and I am authorised to provide this evidence on behalf of Energy Bay.

[3] I hold a Bachelor of Commerce in Finance and Marketing and have previously been recognised in the Deloitte Technology Fast 50 and as a finalist of the Victorian Young Achiever of the Year. I have previously worked in a number of leadership roles in technology start-ups and established companies. I am the co-founder of and board member of Social Garden and a co-founder of Energy Bay Limited and Energy Bay Pty.

[4] I have been involved in all elements of the development of the Pahiatua solar farm project including configuration, design and technical reporting.

Scope of evidence

[5] My evidence is related to the operational and company matters relevant to this application and will cover:

- (a) Energy Bay's role;
- (b) The proposal;
- (c) Site selection;
- (d) Consultation; and
- (e) Positive benefits.

Energy Bay's role and experience

[6] Energy Bay is a leading impact investment platform. That means Energy Bay provides the capability to finance, build and operate renewable energy

infrastructure, bridging the gap between organisations wanting to reduce emissions and the technical ability to do so.

[7] Energy Bay is developing, constructing, investing in and managing more than 350MW of distributed renewable energy projects across the Asia / Pacific. In New Zealand, this includes the following solar farms under development or operational (see Figure 1 below):

- (a) Maungaturoto Solar farm (20.97MWdc) – partnering with Ryman Healthcare to supply retirement villages;
- (b) Massey University Solar Farm (6MWdc) – partnering with Massey University for a combined solar and pastoral farming farm.
- (c) Wiri Logistics Estate (1.02MWdc – operational) – partnering with Countdown supermarkets;
- (d) Naseby Solar Farm (43MWdc) – partnering with a private landowner; and
- (e) Planned farms at Albury Solar Farm (27MWdc) and Waimate Solar Farm (10MWdc).

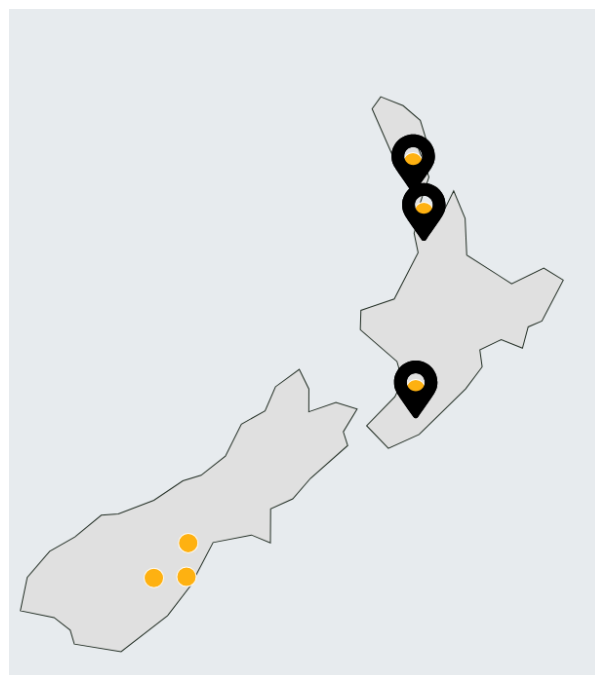


Figure 1: Map of Energy Bay projects in New Zealand.

The proposal

[8] Energy Bay proposes a solar farm across two sites in the Mangatainoka River valley across a 114.3169ha area (with a developed area of 86.93ha).

[9] While Energy Bay will retain its interest in the land, the land will be leased to Akuo New Zealand Limited (**Akuo**) who will develop and operate the solar power farm. Akuo was selected to collaborate with Energy Bay due to its worldwide experience in developing, operating and maintaining solar farms. Akuo has constructed more than 50 solar projects worldwide through its parent company. This project will be capably led by Greg Vissler who has 30 years experience in the energy sector.

Site selection

[10] In early 2020, Energy Bay initiated the process of identifying an ideal location in the Tararua region. We aimed to tackle an issue in the New Zealand energy market where businesses and producers were finding it challenging to compete due to excessively high energy costs.

[11] The search for an ideal solar farm site encompassed the lower North Island, particularly concentrating on the Tararua region. During this endeavour, Energy Bay pinpointed a suitable area near the Mangamaiere Road Substation, which provides crucial connectivity capabilities, flat and suitable land, access to the Powerco Network, and the potential for consistent generation of environmentally friendly electricity into the lower North Island grid. A willing seller of the land is also necessary. An essential element that confirmed the selected site's feasibility as a significant solar farm in New Zealand is its ability to generate renewable electricity for the lower North Island network reliably free from intermittent constraints stemming from upstream power generation.

[12] This location is considered the sole viable option in the lower North Island basin, and it possesses the financial viability required to support the establishment of a solar farm at the necessary scale. This solar farm is intended to offer more reasonable energy pricing to larger energy consumers and agricultural producers across New Zealand.

[13] Farming at the solar farm site will continue. The concept of agri-energy is important and it is intended the site will be grazed and cropped around the solar panels. It is considered this offers significant synergies - the sites can continue to be optimised in land-based primary production and ensure site maintenance for energy outputs.

Consultation

[14] It has been important to Energy Bay to consult with surrounding landowners and affected parties. Energy Bay and Akuo have undertaken community consultation with all affected parties and revised landscape mitigations and waterway protection to accommodate visual and ecological impacts. Most neighbouring parties have agreed to withdraw their submissions or otherwise have provided affected party approval as a result.

Positive benefits

[15] New Zealand has signed and ratified the Paris Agreement committing to reduce greenhouse gas emissions and the Zero Carbon Act has committed New Zealand to achieving zero greenhouse gas emissions by 2050. Further, New Zealand has joined the Powering Past Coal Alliance which commits the country to phase out the use of coal in electricity generation by 2030. To achieve all these commitments, renewable energy projects need to be developed now to meet these 2030 and 2050 goals.

[16] In tandem with this shift to renewables, electricity demand is projected to increase over the next 30 years, with an estimated doubling of electricity demand by 2050.¹ Part of this growth is the anticipated transition from stationary energy (such as on-site industrial boilers) to electrification. Comparative growth of renewable energy supply (rather than non-renewables) is vital to meet these challenges.

[17] The key benefit of this solar farm proposal is that it will assist New Zealand in reaching the current target of 100% renewable energy generation by 2030.

¹ *Transpower 2018: Te Mauri Hiko – Energy Futures white paper*

Projects such as this, which can power more than 10,000 homes, are key to ensuring a reliable and consistent supply of renewable energy across all regions of Aotearoa.

[18] This solar farm in particular has a functional efficiency due to its location adjoining the Mangamaire Substation. This will enable much greater efficiency of the power produced to distribution to the Tararua District and the wider region, with fewer transmission losses.


[19] The Project will involve approximately \$70-80 Million in capital investment and provide infrastructure to improve economic and employment outcomes. It will generate approximately 60 direct full-time equivalent (FTE) jobs over a 12-15 month construction period and around 5 ongoing FTE jobs. Indirectly, there will be economic benefits to the community and the wider Tararua District. Construction, operation and maintenance works are anticipated to be sourced primarily from the local community feeding into the local economy.

[20] Further, the project is intended to enable agrivoltaic farming operations on solar farmland. That means agricultural activities such as stock grazing (which has the added benefit of maintaining the ground cover) will coincide with renewable energy production.

Conclusion

[21] Experienced operators will lead the Project in designing, financing, establishing and operating this scale of solar farm. This proposal is a well-designed project which has comprehensively assessed the potential effects and sought to implement mitigations as appropriate.

[22] The proposed solar farm will assist New Zealand in working towards the 100% renewable energy by 2030 goal and benefit the local economy without adversely affecting neighbours.


Andrew Archibald (Aug 16, 2023 13:22 GMT+10)

Andrew Archibald




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Final Audit Report

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