

SUMMARY OF EVIDENCE OF CAMPBELL MCMATH APPLICANT AND OPERATIONS

DATED: 4th March 2024

My name is Campbell McMath. I am the Managing Director of KeaX Limited. I am the applicant of the Buckleys Road Solar Farm project (the Proposal). We have several smaller sites within 1000M of the Proposal and have done for around 10 years.

My wife and I, with our two daughters have lived in the area for around 15 years, and we are very familiar with the land and surrounding area. For this project we have partnered up with Ethical Power, who is very experienced in the energy sector and has done over NZ\$4bn worth of energy projects around the world, and has 9 projects totalling 400MW in New Zealand.

The following is a brief summary of the key matters addressed in my evidence dated 16 February 2024 and responds to various matters raised by submitters and other experts.

A description of the Proposal is set out in my evidence I will not repeat these here.

The site was chosen on a number of factors listed in my evidence under 5 "Site Selection", some of the key factors are:

- Capacity in the sub-transmission lines. There are two existing lines (2 x 40MVA) coming into the Brookside substation with a third sub-transmission line (1 x 72MVA) being built by Orion. This is being built as part of the network resilience and increasing load in Selwyn. Most of the power generated from the Proposal will be exported down these existing sub-transmission-lines.
- The Proximity to the Brookside substation, also results in not needing long cables and lines which are associated to energy loss and GHG emissions as shown in our evidence.
- Utilising infrastructure in both directions. With the ability to share distribution and sub-transmission assets this reduces the need for more substations, and more switchgear which wastes valuable resources, and increases the risks of faults.
- With three directions for the power to import and export, and with the Brookside substation between two GXP's this gives greater resilience in disasters.
- Electrical studies to demonstrate that the protection and generation from the Proposal and be incorporated into New Zealand's power grid.
- Proximity to infrastructure not just electrical connections, but roads and ports.

- Sufficient suitable land, it is flat (easy to screen and tracking can be installed), ground conditions suitable for good foundations.
- A willing landowner, there needs to be a relationship between a landowner and ourselves. It is a long term relationship.

As New Zealand targets Net Zero carbon by 2050 including doubling renewables in the energy sector. More renewables are needed. As the Boston Consulting Group 2022 report on “the future is electric” shows electricity generation needs to increase by 34TWh an increase of (79%), this does not include the decarbonisation of our coal and gas power stations. We need the power to keep the country running. Our import, export and local industry all use electricity.

Other locations we looked at all had their own red flags, ranging from solar farms were already being applied for in that area, no and limited capacity on the lines, land was not suitable due to terrain and other reasons, unable to find a landowner who was interested. There is more detail in our evidence.

Our family has been farming for over 40 years and we appreciate the importance of productive land. We have the experience in farming around panels and have done for a number of years, it is becoming common practise for us. As we have demonstrated with Dr Beechey-Gradwell and Mr. Stuart Ford, primary production will continue.

It will be at an intelligent high-tech agri-voltaic farm. As shown in our evidence attachments, there are tractors, food crops, and a variety of farming taking place amongst the panels in a similar layout to ours. As high-tech farming takes place products like virtual fencing for animals is exciting and possible, allowing for large animals amongst the panels without physical fences. Even now the Ward’s have sick cows amongst panels with successful results.

Other important future considerations sit in the back of the Wards and our minds, where ECAN are wanting to reduce nitrates as part of the NPS-FW and reduce irrigation consents. The land is in a red-zone as explained by Stuart. The Proposal is diversifying the farming methods in the area, allowing for a reduction in Nitrates and Irrigation.

There were some concern over contamination from leaching, this has been addressed in great detail by Dr. Beechey-Gradwell, and by the past President of the New Zealand Institute of Environmental Health, Isobel Stout. So I will not repeat their findings except to say the effects are less then minor.

If it helps demonstrate the safety and versatility of panels a number of examples have been given in our evidence, including panels being installed on residential houses,

hospitals, schools. We also let children play with solar power calculators. My family live quite happily with solar panels on our roof, within 1M of our heads. Panels are used on drinking water reservoirs such as the QE2 reservoir used in London, which is tested 500,000 times a year. Food is grown under solar panels which also demonstrates that primary farming can take place.

There was concern raised by the submitters regarding employment. With the Proposal there will be more variety of jobs, some of these include NMS controllers, sales teams, energy traders, maintenance teams, call centres. On top of the added jobs from the Proposal, primary production is continuing, and these jobs are available, there is an opportunity that these will be at a high-tech primary farming level, working amongst the panels and using tech to get the most out of the land.

At the very early stages of the concept of having a solar farm in Brookside we have consulted and/or reached out to the neighbouring properties, I have included a table. There has also been a number of neighbourhood meetings which have been held. Kea was not invited to nor was it given the opportunity to talk at them, however feedback was passed onto the council which they passed on to Kea.

Table 1: Consultation Process

Date	Whom	Type
18/05/2021	Wards	House Visit
30/07/2021	Dalleys	House Visit
20/07/2021	Casey's	House Visit
4/02/2022	Casey's	House Visit
3/03/2022	Kewishs	House Visit
4/11/2022	Greens	House Visit
5/12/2023	All Submitters	Email/Letter
24/01/2024	4 x Submitters	Email/Letter

As a result of some concerns raised with the consultation. We have made some variations on the Proposal, such as but not limited to, lowering the average height of the panels, inverter equipment has been made to be more central to the site, faster growing trees have been chosen to help satisfy the screening.

This project will help keep the lights on and advance New Zealand's farming industry into a high-tech field. This is a solution to many problems.