BEFORE THE INDEPENDANT HEARINGS PANEL
APPOINTED BY TAUPŌ DISTRICT COUNCIL

UNDER THE MATTER	of the Resource Management Act 1991
AND	
IN THE MATTER	of the Proposed Plan Changes 38 and 42 to the Taupō District Plan

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STATEMEMT OF EVIDENCE OF NICOLA IRENE FORAN
ON BEHALF OF MANAWA ENERGY LIMITED

DATED 9 August 2023

INTRODUCTION

1. My full name is Nicola Irene Foran. I am employed by Manawa Energy Limited (**Manawa**) as their Environmental Policy Manager and am based at its head office in Tauranga. I have been employed by Manawa since 2013.

2. I hold the qualifications of Bachelor of Science (Earth Science) from the University of Waikato (2004) and a Post Graduate Diploma in Arts (Planning) from Massey University (2010). I am a full member of Te Kokiringa Taumata, the New Zealand Planning Institute and have over 18 years' experience in the field of environmental and resource management.

3. In my position at Manawa, I am responsible for, amongst other things, reviewing and contributing to resource management processes which may enhance or impact on Manawa's existing, consented or prospective renewable electricity generation assets and associated infrastructure. This includes providing input into central government reform programs, development of national direction, and regional and district planning activities, including Environment Court appeal processes.

SCOPE OF EVIDENCE

4. My evidence will address:

   (a) Overview of Manawa Energy;

   (b) Background context for submission; and

   (c) Manawa's assets and interests in the Taupō District.

INTRODUCTION AND OVERVIEW TO MANAWA ENERGY

5. Manawa Energy Limited ("Manawa") is a renewable electricity generator in New Zealand. The company owns and operates 25 hydro-electric power schemes[1] across New Zealand with an installed capacity of 510 MW, and generates approximately 8% of New Zealand's total hydro-electricity supply on an annual basis.

6. Manawa has recently been established after the mass market retail business of Trustpower (including the Trustpower brand) was sold to another company. The

[1] Which includes 20 schemes wholly owned by Manawa, and 5 schemes under the King Country Energy portfolio, of which Manawa is a 75% shareholder, and is responsible for the operation and maintenance of these schemes.

sale excluded the generation arm of the company, which has been rebranded to Manawa Energy and retains ownership of the electricity generation assets, and is the part of the business that is interested in these proceedings.

7. As such, Manawa Energy Limited began trading from the 1 May 2022 as. The name Manawa, meaning heart, was gifted to us by Ngāti Hangarau hapū, mana whenua of the area where our Kaimai scheme is located. It acknowledges our shared connection to the Omanawa River – a place of significance to Ngāti Hangarau and the origin of our business from its beginnings when electricity generation was established on the Omanawa River in the early 1900s.

8. Manawa is also a majority shareholder of King Country Energy ("KCE") who are the owners of the Kuratau hydro-electric power scheme, amongst other schemes in the Waikato and Horizons Regions. KCE has an operations and maintenance contract with Manawa which is for Manawa to provide operational, engineering and consulting services relating to KCE's schemes as required. Manawa represents KCE's interests in relation to this specific issue.

9. Manawa's existing hydro-electric power schemes ("**HEPS**") are lifeline utilities under the Resource Management Act 1991 ("**RMA**") and the Civil Defence Emergency Management Act 2002. Electricity generated by Manawa's HEPS is conveyed to consumers via the national grid and local distribution networks. The generation and supply of electricity is critically important to security of electricity supply, and the social and economic wellbeing of communities within the district. Noting the vulnerability of the district to natural events, the necessity to protect and maintain the electricity supply is a matter of national importance.

10. Manawa seeks to ensure renewable electricity generation is not unduly restricted through the changes to the Taupō District Plan, including that which may impact on the operation of Manawa's hydro-electricity generation infrastructure. This is a powerful and useful resource that makes a strong and ongoing contribution to the Government's commitment to decarbonising and electrification of Aotearoa New Zealand's economy.

11. Hydro-electricity generation also plays a key role in the context of the Government's climate change policy priorities to reduce CO_2 emissions. This will mainly be achieved by phasing out thermal powered electricity generation with renewable electricity generation, and the electrification of sectors currently reliant on fossil fuels such as transport and industrial process heat. Electrification will increase demand for electricity at the same time non-renewable electricity

generation is retired. In combination these two developments will place greater emphasis on the role hydro-electricity generation plays in ensuring a stable and secure electricity system for New Zealand.

BACKGROUND CONTEXT FOR SUBMISSION

12. The Government has committed to New Zealand transitioning to 100% renewable electricity generation by 2030 and is developing policy packages which aim to accelerate the deployment of renewable electricity generation and reduce carbon emissions.

13. Alongside that sits New Zealand's commitment to both the United Nations Framework Convention on Climate Change (entered in 1992) and the Paris Climate Change Agreement (adopted in 2015) – and the commitment to reduce greenhouse gas emissions to 50% below the 2005 levels by 2030, and a domestic 'net zero' commitment of all greenhouse gas emissions (except methane) by 2050.

14. The renewable electricity generation industry is ready, willing, and able to play a significant role in meeting these commitments.

15. For these commitments to be achieved, rapid electrification of the economy will be required, and this will require a significant increase in the installed capacity of emissions free renewable electricity generation.

16. Approximately 1,250 GWh of new renewable generation will be required on average each year until 2050[2].

17. By comparison, an average of 380 GWh of new renewable generation was commissioned annually in the 30 years to 2020. Furthermore, the future development rate will need to be even higher if existing renewable electricity stations' operating capabilities are reduced when current resource consents expire.

18. This is no small task, and in that, every region in New Zealand, has a role to play in ensuring that the climate change commitment, made by the Government on belief of all New Zealanders, is met.

19. Given that climate change is one of the most significant issues facing New Zealand, there is a need to ensure a coordinated policy response to these issues and that

[2] Renewable generation development implications of decarbonisation through electrification; Concept Consulting, 2022

includes all regions making provision for this to occur do so in a way that contributes to the national outcomes.

20. This requires regional and district policy frameworks to align with central government's wider environmental aspirations, particularly that of increasing the share of renewable electricity generation (to 100%), phasing out of thermal generation, decarbonising / electrification of the economy and, of course, responding and adapting to climate change. These wider national goals and aspirations require investment certainty for electricity generators, and other industry participants, and therefore the regional policy framework should be conscious of the substantial commitments that this type of investment requires.

21. It is against that background that Manawa is seeking a supportive and enabling framework for renewable electricity generation activities within the Taupō District.

MANAWA'S INTERESTS IN THE TAUPŌ DISTRICT

22. Manawa's interest in the Taupō District pertains to the Wheao, Hinemaiaia and Kuratau Hydro Electric Power Schemes.

Hinemaiaia

23. The Hinemaiaia Scheme is located approximately 20km south of Taupō. The nearest settlement is Hatepe, which is located between Lake Taupō and State Highway One, and, by direct route is approximately 4km to 5km from the Scheme. The Scheme has been in operation on the Hinemaiaia River in some form since the early 1950's and has an installed generation capacity of approximately 6.7 MW, and an annual output of 28 GWh per year.

24. The Scheme comprises three distinct but interrelated components. The three components consist of Hinemaiaia A, Hinemaiaia C, and Hinemaiaia B (or HA, HC, and HB), and associated conveyance infrastructure. In effect, water from the Hinemaiaia Catchment is captured by the HA Dam, approximately 8km in land from the Lake, and passed through three power stations before discharging into Lake Taupō at Hatepe.

Kuratau

25. Lake Kuratau is located approximately 3.5 km west of Kuratau township, which is on the southwest side of Lake Taupō. The lake was created by the construction of the Kuratau Dam and associated flooding of the Kuratau River in 1962 for the local production of electricity. The river runs in a west to east direction with the dam and

powerhouse on the eastern end of the lake.

26. The Kuratau HEPS has four components: The canal embankment, the canal intake, dam abutments, and the dam itself. The areas in which these components are located are generally open with a combination of vegetation, trees, and grass ground cover. The scheme has an installed generation capacity of 6MW, and an annual output of 28GWhr per year.

Wheao Flaxy

27. The Wheao Flaxy HEPS is centrally located within the Kaingaroa Forest and is located approximately 23 km south-west of Murupara and approximately 35 km east of Taupō. This is within the jurisdiction of the BOPRC and the TDC. The Rangitaiki River runs through the Kaingaroa Forest. It is the longest river in the Bay of Plenty Region and has its headwaters in the Ahimanawa Range - south of State Highway 5 between Taupō and Napier. The river generally flows in a north-east direction over a distance of approximately 155 km through the Kaingaroa Plains, Waiohau Plains and Rangitaiki Plans. The river enters the Pacific Ocean near Thornton.

28. The Rangitaiki River is utilised for hydro-electricity generation at Wheao, Flaxy, Aniwhenua and Matahina HEPS. Whilst the Wheao and Flaxy HEPS enable the conveyance of water between the Rangitaiki and Wheao Rivers, the Aniwhenua and Matahina HEPS involve main stem dams on the Rangitaiki River with moderate storage lakes.

29. The Wheao scheme has an installed generation capacity of 26.1MW, and an annual output of 110GWh per year.

CONCLUSION

30. I note that, in the first instance, Manawa preferred an establishment of an Energy Chapter which sets out the breadth and explanation on the importance of renewable electricity generation has within the Taupō District, as well as fully recognising and providing for such activities as per the NPS-REG. Retrofitting energy provisions into the General Rural Chapter is not an ideal approach as this fails to give effect to the requirements of the National Planning Standards 2019, and the recognition afforded by the NPS-REG.

31. However, given the uncertain timeframes until an Energy Chapter in the District Plan would be notified and eventually become operative, and the national

importance of renewable electricity in meeting New Zealand's decarbonisation goals, Manawa seeks that the District Plan contains direction on renewable electricity generation now.

32. In relation to the issue of Electricity Generation Core Sites, there are several existing renewable electricity generation sites that are not identified as such. Basing the plan and rule framework around the use of core sites means that not all generation assets are treated equitably.

33. All existing electricity generation activities are required to be treated in the same manner, and the exclusion of unidentified sites can have unintended negative consequences restrictive towards those generation activities that are not identified.

34. While the identification of certain generation infrastructure and sites and not others may have been done in error when the Operative District Plan was initially created, there is scope within this plan change to address this discrepancy.

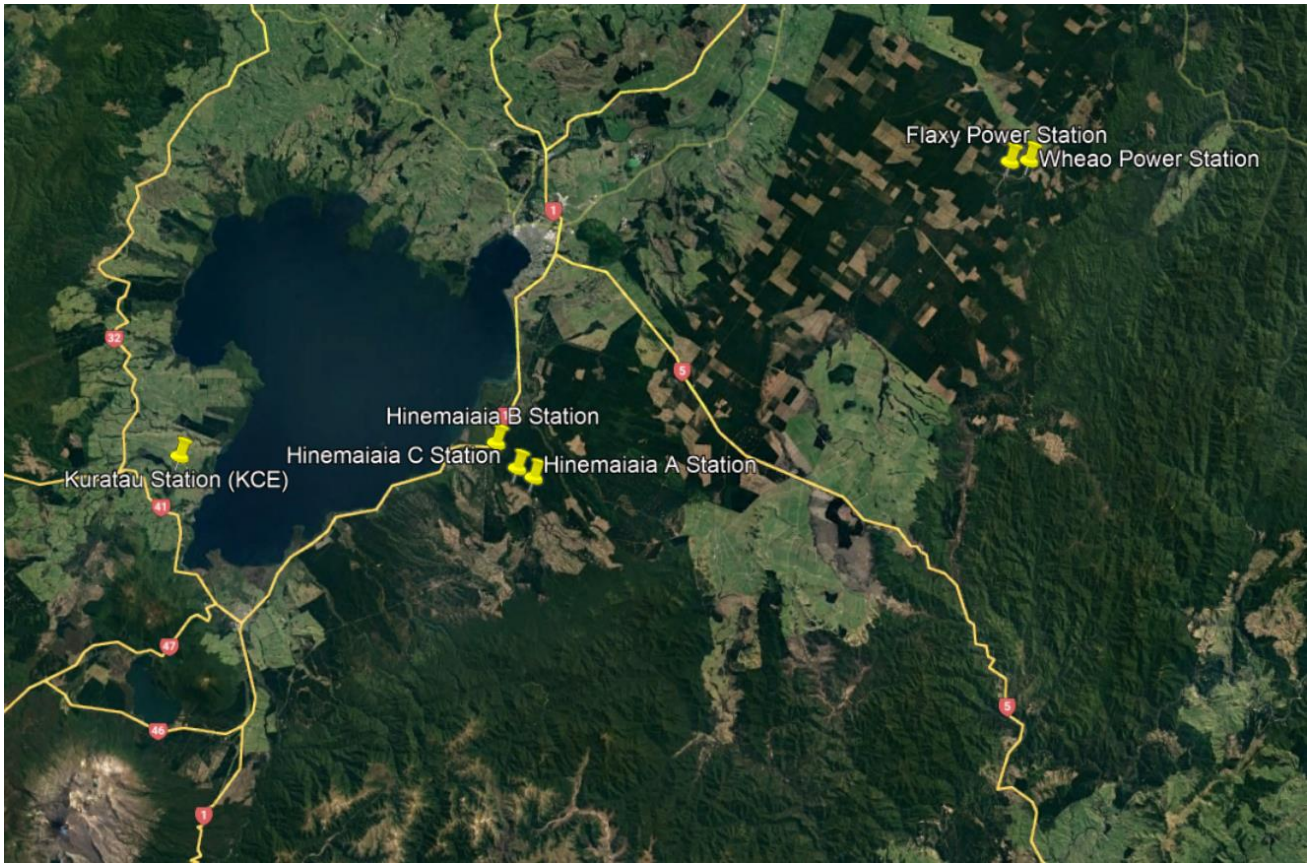
35. Manawa largely supports the comments of the other electricity generators[3] in the Rural Environment and Strategic Directions Chapters and has collaborated together during the preparation of submissions.

36. I thank the Hearings Panel for considering Manawa's evidence, including the expert Planning evidence to be presented by Ms Romae Calland.

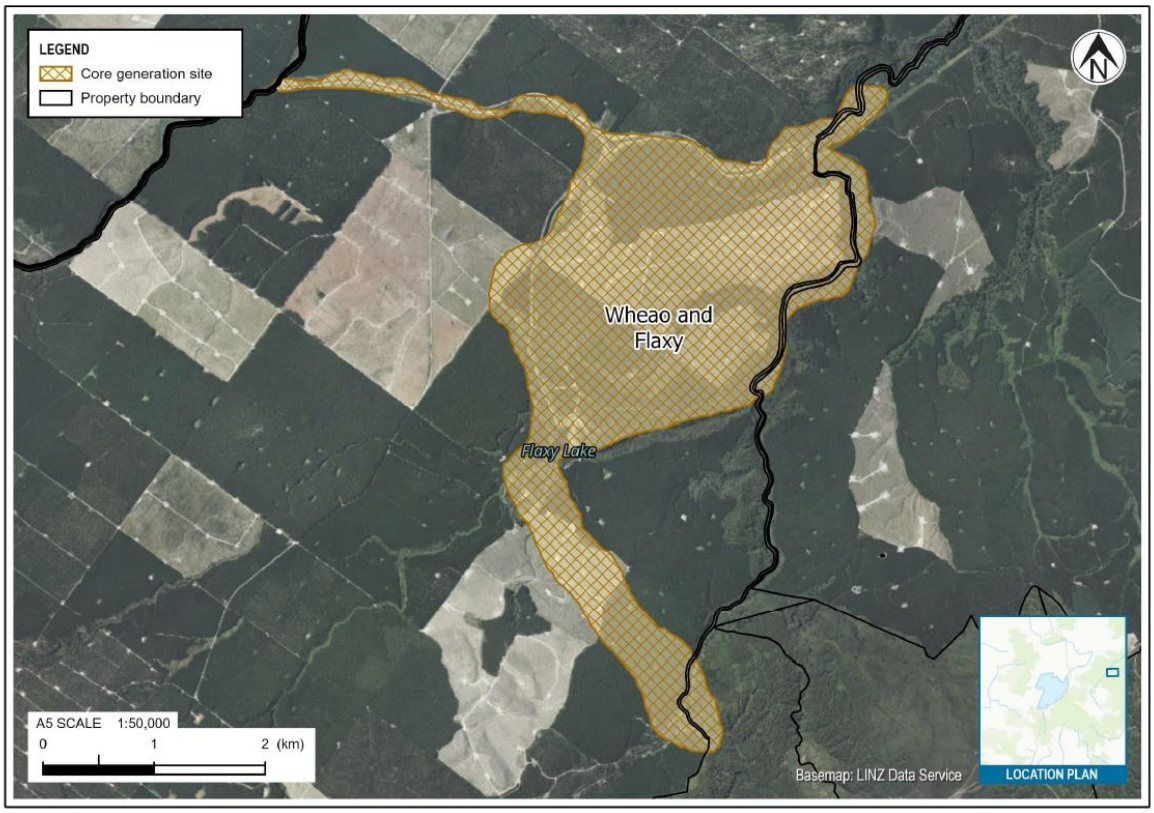
Nicola Irene Foran
9th August 2023

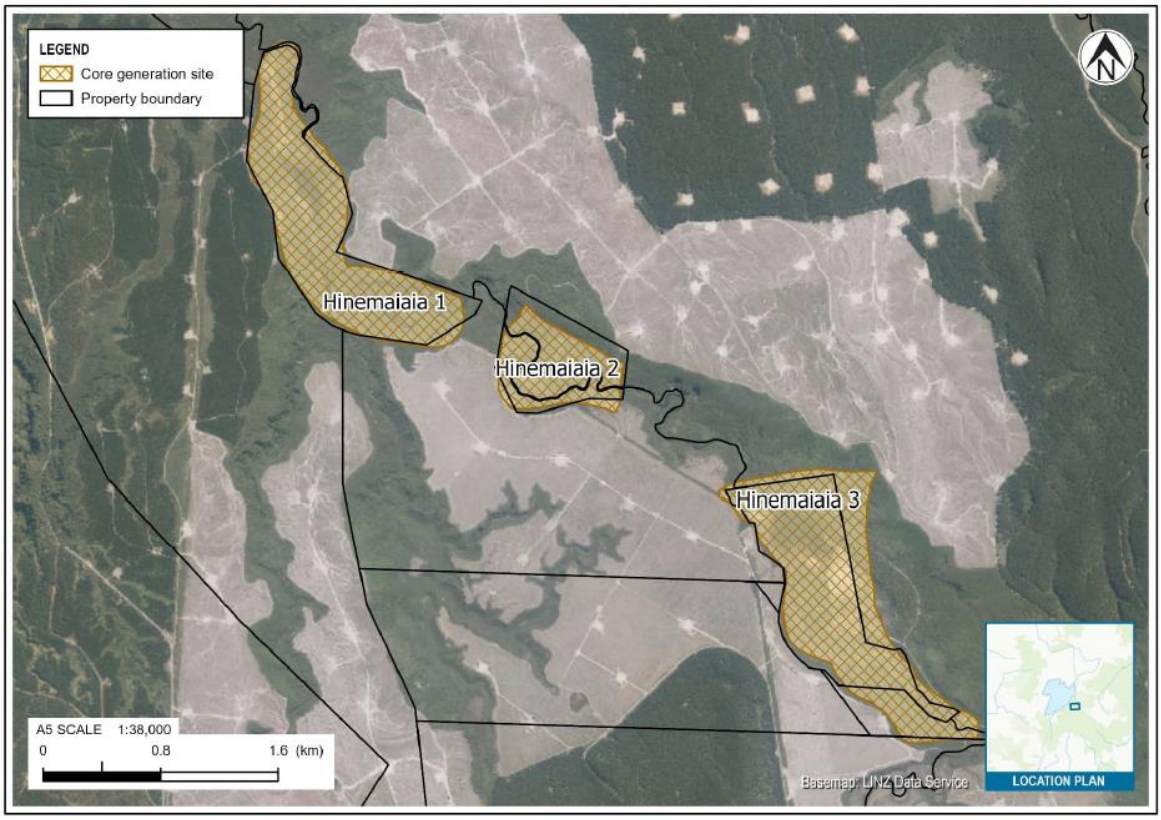
[3] With Mercury Energy, Contact Energy, and Genesis Energy.

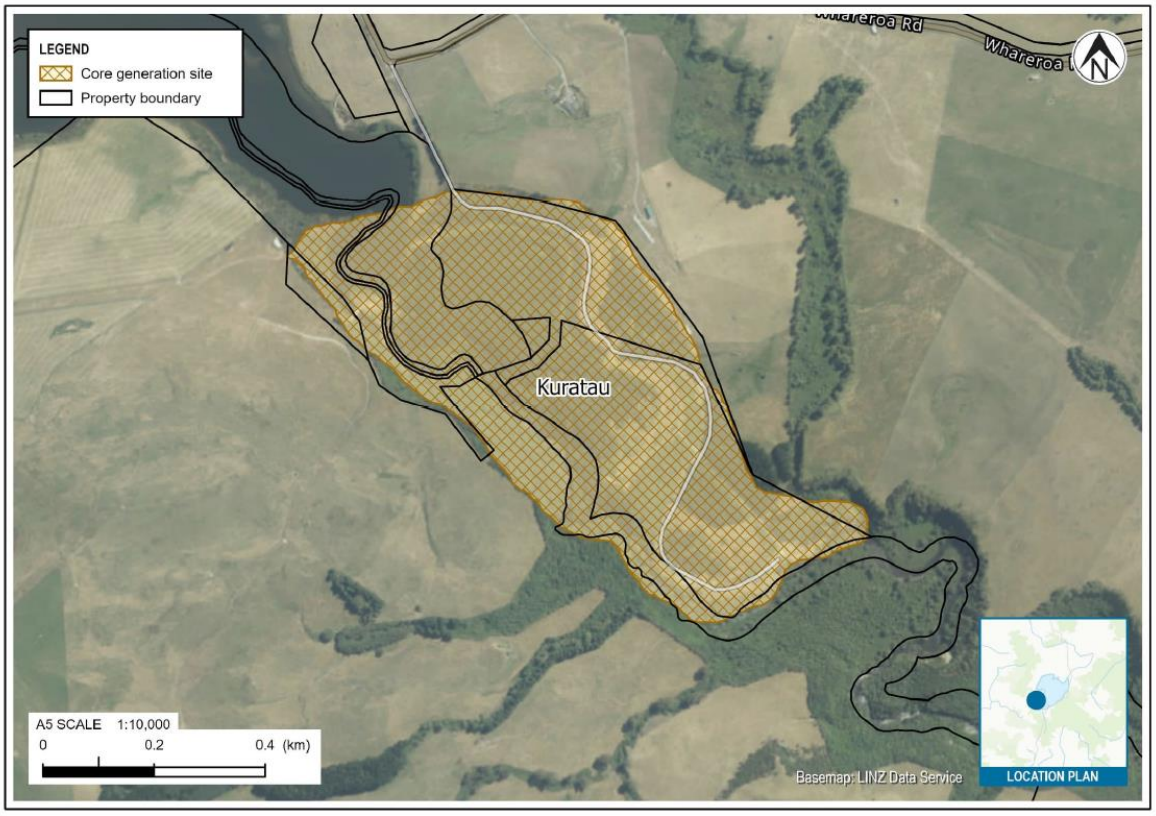
APPENDIX A: MANAWA'S SCHEMES IN THE TAUPŌ DISTRICT



APPENDIX B: MANAWA'S SCHEMES TO BE INCLUDED AS CORE GENERATION SITES






LEGEND
Core generation site
Property boundary
Kuratau
Whareroa Rd
A5 SCALE 1:10,000
0
0.2
0.4 (km)
Basemap: LINZ Data Service
LOCATION PLAN