

IN THE MATTER

of the Resource Management Act
1991

AND

IN THE MATTER

of Hearings by the Board of Inquiry on
the Proposed National Policy
Statement for Renewable Electricity
Generation

STATEMENT OF EVIDENCE BY DAVID CHRISTOPHER FINCHAM

1. My name is David Christopher Fincham. I am the Energy Supply Manager of King Country Energy Limited ('KCE'). I am a Chartered Electrical Engineer.

My role and responsibilities

2. I have been the Energy Supply Manager at KCE for five years. My responsibilities include managing the current and future generation assets and projects for the company. This also includes the management of all Environmental projects for the Company.

Summary of Evidence

3. My evidence will cover:
 - Renewable Electricity Generation owned by King Country Energy;
 - Overview of KCE's position on the Proposed NPS;
 - Comments, Concerns and Recommendations on the Proposed NPS;
 - Conclusion.

Renewable Electricity Generation Owned by King Country Energy

4. KCE is a renewable electricity generation company that owns and operates four Hydroelectric Power Generation Schemes, which it considers to be 'small-scale'. These Schemes include Kuratau (6MW), Mokauiti (1.7MW), Piriaka (1.3MW), and Wairere (4.6MW) and half of the Mangahao Hydroelectric Power Scheme

(19MW) in conjunction with Todd Energy Limited. In addition to this, KCE has a proposal for a further hydroelectric power Scheme – the proposed Mokau Hydroelectric Power Scheme (9.6MW).

5. The Council hearing for the proposed Mokau Hydroelectric Power Scheme was held in 2005, and was since appealed. The Appeal process is on hold whilst a minor design change is rigorously reviewed to see if it is within the original scope of the application. This proposed Mokau site is located near two of our existing assets and would be considered an ideal site for small, distributed generation. The project has the support of EECA and MED.
6. The Hydroelectric Power Schemes owned by KCE are important assets, because they provide security of supply of the Company's retail division. Without this security, KCE would have suffered and possibly failed during the dry year events in the early 2000's. Being a small player in the generation industry KCE's hydroelectric power scheme sites are relatively small, and primarily embedded generation. These sites, and the building of new ones, are therefore crucial to the future growth of KCE. It is for these reasons that KCE has great interest in the proposed National Policy Statement for Renewable Electricity Generation ('proposed NPS') and applauds the vision, intent and objective of the same.

Overview of KCE's position on the Proposed NPS

7. While KCE supports the vision and objective of the proposed NPS it is concerned that, as currently drafted, the proposed NPS will unnecessarily restrict hydroelectricity generation development and enhancement projects in New Zealand. KCE considers that the proposed NPS may also create additional impediments to the consenting and / or development, expansion or enhancement of its existing hydroelectric power generation assets.

Comments, Concerns and Recommendations on the Proposed NPS

Objective

8. KCE supports the objective of the proposed NPS, as it, together with appropriate policies, will assist in achieving the New Zealand Energy Strategy's target that 90 percent of New Zealand's electricity demand be sourced from renewable electricity by 2025. KCE seeks the retention of this Objective.

Policy One

9. While supportive of Policy One, KCE considers that this Policy could be strengthened by increasing or further clarifying the list of benefits associated with renewable electricity generation. The inclusion of additional benefits in the Policy would help reinforce that there are numerous valid and significant benefits associated with renewable electricity generation activities. This becomes important during the resource consent process, where the detail of adverse effects is frequently examined in depth, yet the benefits are often given cursory consideration.
10. Furthermore, given the aim of Government to achieve 90 percent of electricity generated by renewable energy sources by 2025, importance must be afforded to the benefits so that decision makers are made fully aware of the national importance of this issue.
11. Additional benefits of new renewable electricity generation schemes include:
 - employment opportunities
 - reductions in transmissions losses at a local scale, thus reducing costs to consumers
 - reducing the need for costly transmission capacity upgrades, or new transmission lines, to transport electricity between regions
 - the ability to co-locate with existing land uses, which means that productive land is often able to continue to be utilised and developed
 - assisting the government to achieve international climate change obligations
 - maintaining or enhancing New Zealand's reputation as a clean, green tourist destination.
12. KCE's generation activities directly employ a staff of seven, and also supports a number of civil, electrical and mechanical engineering companies within the North Island. Furthermore, KCE's generation schemes co-exist with other land uses (particularly farming activities), which enables productive land to continue to be utilised, albeit in a slightly reduced capacity.
13. Overall, the Company employs in total 35 persons and contracts a number of consultants, including planners and engineers. By way of example, the Mokau project has cost KCE over two million dollars to date, with the majority of this cost related to employing consultants and the Council processing and hearing process. If the project were to proceed the Company estimates a cost of approximately twenty-three million, with over seventy percent spent on contractors and consultants for the construction of the project. The Mokau project, if successful, would reduce KCE's current risk exposure, allowing KCE

to provide more consistent pricing going forward. Additional benefits of the project to the local community would include a new recreational resource (for Waka and kayaks).

Policy Two

14. KCE agrees that renewable electricity generation projects are often constrained by the various factors set out in Policy Two. However, the development of new renewable electricity generation plant is also dependant on securing access to land. The proposed NPS should be extended to provide direction to the removal of barriers of access to land, particularly with respect to conservation estate land. While KCE recognises that conservation estate land is not administered under the Resource Management Act 1991 ('**RMA**'), it is extremely difficult to advance renewable electricity generation proposals that traverse such land. Such constraints should be recognised in Policy Two.
15. The proposed Mokau Scheme will inundate twelve hectares of Department of Conservation ('**DoC**') land. KCE undertook considerable consultation with DoC, over the proposed inundation, and have agreed an appropriate mitigation package.

Policy Three

16. KCE considers that Policy Three should be deleted in its entirety. This policy is not consistent with the vision and objective of the proposed NPS as it will unnecessarily, and without justification, restrict new hydroelectric power generation development proposals, and enhancement and consenting of existing hydroelectric power generation Schemes. The 'reversibility' of adverse effects may be an appropriate consideration for certain types of renewable electricity generation (wind for example), however it would present a significant obstacle for a hydroelectric power generation activities.
17. More specifically, while generators seek to avoid or minimise adverse effects as far as practicable, it is inevitable that some level of adverse effects are created, some of which are not reversible. Any lack of 'reversibility' could be used as a double negative when considering applications for resource consents as (i) an adverse effect is created and (ii) that adverse effect is not reversible. Furthermore, the consideration of whether any given adverse effect is reversible or not could open up additional areas of contention (and increased costs) within the resource consent process which, in turn, could lead to additional time delays and uncertainty for investment.

18. If implemented, this Policy could amplify project development costs by making consent more difficult to argue for, and ultimately affect the ability to obtain viable resource consents and consent conditions for hydroelectric power generation proposals. KCE notes that the consenting / re consenting process for hydroelectric power generation projects is already somewhat constrained and doesn't need to be made more restrictive. For example, KCE has been trying to obtain resource consent for a small hydroelectric power scheme on the Mokau River for a number of years. This process has taken up considerable resource in terms of both time and cost. Further, KCE purchased the Wairere and Mokauti Power Schemes in 2000. Both were going through re consenting processes at the time, which began in 1996. The main challenges of these processes were consulting with various parties about the effects of the Schemes, including 'perceived effects' and trying to manage unreasonable expectations and mistruths.

Policy Four

19. Some confusion has developed over the intent of Policy Four. The submission from KCE elaborated on the issues that it considered to be of relevance if the Policy was to be implemented on the basis of specific sites and energy sources being identified within planning documents. If this interpretation is correct, KCE considers that unless carefully implemented, this will lead to preference being established for existing proposals and such an outcome would be neither justified, or in accordance with the proposed NPS.
20. I have subsequently been informed that there is a differing interpretation of Policy Four. This alternative interpretation is that the Policy intends to enable the generic activities associated with the identification and assessment of potential sites across the district / region, as opposed to identifying specific sites and energy sources. KCE would be much more accepting of such a policy provided it is drafted in a clear and concise manner.

Policy Five

21. KCE supports the intention of Policy Five and notes that such a Policy may go some way to encouraging developers to pursue small-scale electricity generation proposals, which due to their very nature can be costly to scope, consent and construct. However the definition of 'small and community scale distributed renewable electricity generation' as being projects that have an installed electricity generation capacity of less than four megawatts is unnecessarily restrictive.

22. A number of KCE's hydroelectric power schemes, including Wairere, Kuratau, and the proposed Mokau – which each have a total capacity of less than 10 megawatts would not be defined as 'small-scale' according to the proposed NPS definition. The Schemes listed are all embedded and consist of structures of a similar scale to KCE's existing assets that do fall below the 4 MW threshold. Consequently it is difficult to understand the environmental rationale for the establishment of the 4MW threshold. KCE itself brands its position in the market as a small-scale community focused business. The Company's moto is 'power behind our community'.
23. To achieve consistency, it is suggested that small-scale projects be defined as projects that have an installed electricity generation capacity of ten megawatts, or less. Further, it is considered that a 10 megawatt threshold is more defensible when the likely environmental effects of Scheme's exceeding 10 megawatts are considered. This definition is also consistent with the threshold determined by the Electricity Governance Rules for small-scale generation.
24. KCE also suggests that Policy five should be expanded to require local authorities to recognise the national significance of all (new and existing) renewable electricity generation proposals when notifying their plan changes, proposed plans or variations as required under this Policy. This will ensure that the objective of the Proposed NPS is embodied within local planning documents at a level that the general public is more likely to be aware of.

Additional Comments

25. While the proposed NPS goes some way to promote the benefits of renewable electricity generation it should be extended to specifically include statements regarding existing renewable electricity generation infrastructure and the consenting and / or enhancing of the same. KCE notes that the consenting of existing infrastructure is becoming increasingly difficult, as not only does existing infrastructure face the same impediments as new infrastructure, many of New Zealand's existing Schemes (in particular hydroelectric power generation schemes) were developed at a time when natural and physical resources were managed in a less restrictive manner.
26. The consenting of existing infrastructure has proven to be a time-consuming and costly process. For example, KCE's Wairere and Mokauiti Hydroelectric Power Schemes took approximately ten and eleven years respectively to gain consents during the consenting processes, as KCE tried to resolve, or narrow the issues raised by the appellants to the projects. While KCE knows of no situation where resource consents sought for existing renewable electricity

infrastructure have been declined, the conditions upon which consent is granted are almost always more restrictive after re consenting. By way of example, when the Mokaiti Scheme was re consented the conditions imposed reduced the generation potential of the Scheme. Also, there were numerous additional conditions imposed associated with environmental monitoring and enhancement, all at additional cost to KCE.

27. In order to assist with the processing of resource consent applications associated with existing hydroelectric power schemes, to save unnecessary debate, and to reduce the level of uncertainty faced, KCE considers that decision-makers should be guided to have particular regard to the existing environment. This should be defined as *'the environment that exists with the electricity generation infrastructure in place at the time the application is made'*. This definition is confirmed by case law and, while frequently challenged, it is not necessarily to relitigate the definition here.

Relief Sought

28. The relief sought by KCE to address the comments, concerns and recommendations outlined above has been attached as **Appendix A**. The relief sought is the same as that specified in KCE's original submission, except for Policy Four in which two solutions are advanced to deal with the differing interpretations.

Conclusion

29. The proposed NPS seeks to recognise the national significance of renewable electricity generation in New Zealand. While supportive of the vision of the proposed NPS, KCE suggests that it requires amendment to achieve its Objective of promoting activities associated with renewable electricity generation.
30. As currently drafted the proposed NPS will unnecessarily impede new and existing hydroelectric power generation schemes and the development / enhancement of the same in New Zealand. Without hydroelectric power generation options, it is not likely that the government's target of 90 percent of electricity generated to be sourced from renewable sources by 2025 will be achieved.
31. I thank the Board for affording me the time to present this evidence

**David Christopher Fincham
Energy Supply Manager and
Acting General Manager**

King Country Energy Limited

8 June 2009

Appendix A

Relief Sought by KCE

KEY: Deleted text

Additional text

OBJECTIVE

To recognise the national significance of renewable electricity generation by promoting the development, upgrading, maintenance and operation of new and existing renewable electricity generation activities, such that 90 percent of New Zealand's electricity will be generated from renewable sources by 2025 (based on delivered electricity in an average hydrological year).

POLICY ONE

The benefits of renewable electricity generation activities, at any scale, are of national significance. Decision-makers must have particular regard to the national, regional and local benefits relevant to all (new and existing) renewable electricity generation activities. The benefits may include, but are not limited to:

- i. maintaining or increasing electricity generation capacity while avoiding, reducing or displacing greenhouse gas emissions and assisting government to achieve international climate change obligations;
- ii. maintaining or increasing security of electricity supply at local, regional and national levels by diversifying the type and/or location of electricity generation;
- iii. maintaining or reducing transmission losses at a local scale; and
- iv. maintaining or enhancing New Zealand's reputation as a clean, green nation.

POLICY TWO

When considering measures to avoid, remedy or mitigate the adverse environmental effects of renewable electricity generation activities, consent authorities must have particular regard to the constraints imposed on achieving those measures by:

- i. the nature and location of the renewable energy source;
- ii. the barriers and / or impediments to accessing the renewable energy source and renewable generation development associated with the same;
- iii. logistical or technical practicalities associated with developing, operating or maintaining the proposed renewable electricity generation activity;
- iv. the nature and location of existing renewable electricity generation activities; and
- v. the location of existing structures and infrastructure including, but not limited to, roads, navigation and telecommunication structures and facilities, the local electricity distribution network, and the national grid.

POLICY THREE

~~When considering proposals to develop new renewable electricity generation activities, decision makers must have particular regard to the relative degree of reversibility of the adverse environmental effects associated with the proposed generation technologies.~~

REVISED POLICY FOUR – OPTION A (PREFERRED)

By the 13 March 2012, local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to introduce objectives, policies and where appropriate, methods, into policy statements and plans to enable ~~activities associated with:~~

- i. enable activities undertaken by generators associated with the identification and assessment ~~by generators~~ of potential sites and energy sources for renewable electricity generation
- ii. enable activities associated with research-scale investigation into emerging renewable electricity generation technologies and methods.

POLICY FOUR EXPLANATION:

This Policy intends to enable the generic activities associated with the identification and assessment of potential sites and research-scale investigation into emerging technologies across districts / regions, as opposed to identifying specific sites and energy sources.

REVISED POLICY FOUR – OPTION B

By the 13 March 2012, local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to introduce objectives, policies and where appropriate, methods, into policy statements and plans to enable ~~activities associated with:~~

- i. ~~the identification and assessment by generators of potential sites and energy sources for renewable electricity generation~~
highlight constraint areas where new renewable generation may be restricted, such as areas supporting significant environmental values and / or sensitive areas; and
- ii. enable activities associated with research-scale investigation into emerging renewable electricity generation technologies and methods.

POLICY FOUR EXPLANATION:

It is appropriate to provide for new renewable electricity generation activities within constraint areas as non-complying activities. Proposals that do not traverse constraint areas should be assessed on their merits and provided for as either a

permitted, controlled or restricted discretionary activity, in accordance with the level of adverse effects that they may induce.

REVISED POLICY FIVE

By 13 March 2012, local authorities are to notify, in accordance with Schedule 1 of the Act, a plan change, proposed plan or variation to introduce objectives, policies and, where appropriate, methods, into policy statements and plans to recognise the national significance of renewable electricity generation proposals; and to enable activities associated with the development and operation of small and community-scale distributed electricity generation.

POLICY FIVE EXPLANATION:

Small and community-scale distributed renewable electricity generation means renewable electricity generation projects with an installed electricity generation capacity of ten megawatts (or less).

NEW POLICY SIX

When considering proposals to consent and / or enhance existing renewable electricity generation activities, decision-makers must have particular regard to:

- (i) the benefits associated with maintaining or enhancing the existing generation capacity; and
- (ii) the existing environment.

NEW POLICY SIX EXPLANATION

The existing environment means the environment that exists with electricity generation infrastructure in place.