

# Further Submission on Proposed Waikato Regional Policy Statement (November 2010)

Sub Form	PRPS2	Cover Sheet	
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Date Stamp		Submission Number	
Entered		Initials	
File Ref		Sheet 1 of	

**FURTHER SUBMISSIONS CLOSE: 4.00 pm on Friday 15 July 2011**

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In accordance with clauses 8(1)(b) of the First Schedule of the RMA:

- I represent a relevant aspect of the public interest; and / or
- I have an interest in the Proposed RPS greater than the interest of the general public.

and my reason(s) are: The NZGA is an independent, non-profit association that provides information on geothermal phenomena and utilisation for industry, government and educational organisations. In addition, the NZGA, as a member of the International Geothermal Association, contributes to the international exchange of information within the geothermal development industry. NZGA membership comprises participants, regulators, and interested parties within the geothermal community. It totals 314 members currently

Do you wish to speak at the hearing?

- Yes  No

**Total number of pages:**

8

If others make a similar submission would you be prepared to consider a joint case?

- Yes  No

  
**Signature** of person making further submission  
(or person authorised to sign on behalf of person making further submission)

Date: 15/7/11

<b>Submitter</b>	<b>Matter Number</b>	<b>Provision</b>	<b>Support/Oppose</b>	<b>Reason</b>
<i>Please refer to the <b>Submitter Number</b> and name your further submission relates to</i>	<i>Please indicate the <b>Matter Number</b> your further submission relates to</i>	<i>Please refer to the <b>Chapter/Policy/Method</b> the original submission refers to</i>	<i>Clearly indicate whether you <b>SUPPORT OR OPPOSE</b> the specific submission</i>	<i>Tell us the reasons <b>WHY</b> you support or oppose this submission. These reasons may help us to understand your further submission</i>
22 Bay of Plenty Regional Council	PRPS2-22.6	Policy 4.2 Collaborative approach	Support	NZGA specifically supports a collaborative approach between the Waikato and Bay of Plenty Regional Councils, especially on geothermal matters. There are some resources which lie on the border between these councils for which collaboration is essential.
22 Bay of Plenty Regional Council	PRPS2-22.7	Method 4.2.4	Support	NZGA specifically supports joint planning across regional boundaries especially in relation to d) geothermal resources.
198 Waikato Regional Council, Hamilton Office	PRPS2-198.23	Method 4.2.4	Support	We support inclusion of f) groundwater resources in the list for which joint initiatives could be sought. Geothermal developments can potentially affect groundwater resources e.g. through reinjection strategies or simply as a result of changes to the underlying geothermal resource. Consistency of approach at the border between Waikato Regional Council and the Bay of Plenty Regional Council will be useful.
22 Bay of Plenty Regional Council	PRPS2-22.8	Method 4.2.7	Support in part	We have no specific view on the integrated management and planning of inter-regional transport networks and infrastructure. We use this submission to underline our support of the cross-boundary cooperation between Bay of Plenty Regional Council and Waikato Regional Council, especially with respect to b) the geothermal resource.
19 Meridian Energy Ltd	PRPS2-19.9	Policy 6.6 Significant infrastructure and energy resources	Support	NZGA's position is that the nation's geothermal resources constitute both significant infrastructure and significant energy resources. Policy 6.6 has been supported by the Association but we agree that there are some areas where the policy can be improved. We specifically support the concept that the use and development of renewable energy resources should be recognised. One of the variations suggested by Meridian also acknowledges national benefits which we think should be acknowledged.
86 Genesis Energy Ltd, Corporate Office	PRPS2-86.33	Policy 6.6 and Explanation to Policy 6.6	Support	Genesis' suggestions for change do not constitute a radical change of direction but do give some useful clarifications. We recognise that this sits within a chapter on the 'built environment' so retention of the word 'built' in the policy will be required.
131 Energy Efficiency and Conservation Authority	PRPS2-131.37	Policy 6.6	Support	The geothermal resources within EW's area are both <u>nationally</u> and regionally significant, such that national significance should be acknowledged.
182 TrustPower Limited	PRPS2-182.15	Policy 6.6 and Explanation	Support in part	There is a requirement on Councils to specifically consider the benefits of renewable energy, though this is partly covered by 6.6.1.f). Again, suggestions by TrustPower are useful.

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				We do not support deletion of the final sentence in Paragraph 2 of the Explanation. Decision makers should take into account the renewable energy potential of a site, for instance when potential residential developments are proposed on the same land. Consideration of this renewable energy potential could lead to a decision against the conflicting development.
32 New Zealand Wind Energy Association	PRPS2-32.10	Method 6.6.1f)	Support	NZWEA has introduced the idea of the significant value of the renewable resources in the region, and that value should be considered.
131 Energy Efficiency and Conservation Authority	PRPS2-131.38	Method 6.6.1f)	Support	We agree that the benefits of renewable energy sources should be emphasised. In addition, the list of renewable energy sources includes all of the additional items suggested by EECA, with hydro being significant in the additions. Further, current operations of renewable energy plants should be protected, partly to give added comfort for future investment.
141 Contact Energy Limited	PRPS2-141.19	Chapter 9 Geothermal	Support	While we are pleased with the overall content of Chapter 9 on “geothermal”, we can see value in additional headings for clarity. Contact’s suggestions help to make Waikato Regional Council’s portfolio approach a little clearer, and distinguishes between the ‘portfolio’ versus ‘individual field’ approach. Chapter 9 largely retains the intent and principles in the negotiated position for Variation 1 to the operative RPS and Change 2 of the Regional Plan.
22 Bay of Plenty Regional Council	PRPS2-22.35	Chapter 9	Support in part, oppose in part	From informal discussions with BOPRC and Waikato RC staff there is still a tendency to the two parties to talk past each other around the issue of sustainable management of resources. Waikato has taken a portfolio approach where the regional geothermal resources are considered and remain available for future generations through the protection of some resources. BOPRC consider sustainability on a resource by resource basis. Hence when BOPRC make suggestions around specific fields and requirements prior to development, their end goal should be considered. Many of the specific suggestions could usefully be included in system management plans, but some of the requirements may be overly restrictive at an early stage of exploration/development. It is not reasonable to expect system characteristics to be established prior to full development – every new well helps with further definition of the field and its characteristics. Reservoir and subsidence modelling is of limited use at the exploration stage and prior to development. It is only once development starts that models of this nature can be calibrated. There should be a requirement for monitoring of relevant factors so that models can be developed and refined. The requirement for a resource buffer to offset variations in reservoir characteristics on a seasonal basis seems unnecessary and may not be a requirement of the developer or electricity system operator.
141 Contact Energy Limited	PRPS2-141.20	Policy 9.2 Sustainably manage geothermal systems	Support	The proposed amendments simply work through the proposed amendments alerted at the beginning of Chapter 9.
198 Waikato	PRPS2-198.69	Policy 9.2	Support	We support the emphasis on the Regional Geothermal Resource.

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Regional Council, Hamilton Office				Similarly we are supportive of efforts to align with the Operative plan as recently negotiated. This includes both provision for the protection of some resources, and use of the method of mapping of large Geothermal Systems. The reordering of policies is of no particular consequence but is rightly pointed out to be a more logical grouping.
131 Energy Efficiency and Conservation Authority	PRPS2-131.42	Method 9.2.1 a) iii)	Oppose	EECA is attempting to redefine the basis for classification of Development Geothermal Systems away from the currently negotiated position. We point out that there is some existing development at Orakei Korako (a small heat exchanger for the hotel using surface springs) and at Waitapu (a well supplying a honey processing factory). EECA's open definition (where energy use or potential use at any scale) should lead to reclassification of these Protected Geothermal Systems as Development Geothermal Systems, and that is opposed.
141 Contact Energy Limited	PRPS2-141.21	Method 9.2.1	Support	The use of "or" after the second of the 3 criteria for Development Geothermal Systems indicates the intention that satisfaction of any of the criteria should lead to classification of the system as a Development Geothermal System. We support the inclusion of the word "or after the first criterion to make this clearer. Similarly, it was not the intention that all system classifications be set in stone, with the Research Geothermal Systems being an obvious holding classification pending testing and reallocation. An acknowledgement of this is useful.
162 Director General of Conservation	PRPS2-162.60	Method 9.2.1 a	Oppose	DOC is suggesting that any hint of connection with a Protected Geothermal System, whether it be a physical hydraulic connection or a common impermeable clay between them should be cause for rejection of a field from the Development category. We oppose this and hold that the flow test currently used is the only test of connection. While DOC places some emphasis on resistivity measurements these are not the ultimate test. Geothermal wells drilled at Whakatane and Horohoro have been drilled on the basis of misleading resistivity measurements, and were affected by low resistivity ignimbrites or in the case of Whakatane possibly by seawater incursion. Even common strata is not a proof of connection. A comparison between Wairakei/Tauhara and Rotokawa indicates continuity of strata between fields. The resistivity boundaries of these systems virtually touch. But the long term operation of the Wairakei/Tauhara field has had no measurable effect on Rotokawa. The absence of a pressure effect on Rotokawa is the real proof of separation and is the appropriate test for any System. This is the test implied in the current wording of the RPS.
198 Waikato Regional Council, Hamilton Office	PRPS2-198.70	Method 9.2.1	Oppose in part, support in part	WRC starts by pointing out that the current wording does not support the development of newly proven sectors of Development (or other) Geothermal Systems, because these would require a plan change to the current maps. Research Geothermal Systems could be a catch-all to bring these sectors into limited usage prior to a plan change. However, the suggested wording changes still do not adequately address this valid problem. The first proposed amendment is diametrically opposed to the required solution, as anything "strongly connected to a Development Geothermal System" is excluded from the definition of

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				<p>Research Geothermal System.</p> <p>We have no objection to a statement of allowable use for Research or Small Geothermal Systems.</p>
142 Mighty River Power Ltd	PRPS2-142.48	Policy 9.3 Significant Geothermal Features	Support in part, oppose in part	<p>MRP has identified a difference between Council practice and the intent of Policy and Plan with respect to the treatment of Significant Geothermal Features in Development Geothermal Systems. They face what they consider to be excessive levels of protection in fields where policy has no obligation for avoidance. In reaction to this, MRP has suggested deletion of Development Geothermal Systems from any aspect of the Policy or methods related to Significant Geothermal Features. We sympathise with MRP, but think it is poor policy to delete reference to Development Geothermal Systems to the point where the RPS is silent on treatment of Significant Geothermal Features in Development Geothermal Systems. The obligation is on Council staff to align their approach to Significant Geothermal Features in Development Geothermal Systems with Council policy. For that reason we do not support the changes suggested by MRP.</p> <p>NZGA accepts that some effects will be noticed on Significant Geothermal Features in Development Geothermal Systems. However, we would expect some measure of sympathy by developers and council for remaining features.</p>
198 Waikato Regional Council, Hamilton Office	PRPS2-198.74	Policy 9.3 and 9.4 Explanation	Support	<p>Waikato Regional Council is usefully suggesting some changes to closer align with the Operative Policy, and to clarify the situation with respect to Significant Geothermal Features in Development Systems versus those features not considered significant. We support clarity around this issue. In comments made below, we also support some relaxation through the testing phase of Research Geothermal Systems and some relaxation for Limited Development Systems.</p>
8 Taupo District Council	PRPS2-8.24	Method 9.3.1 Significant Features within Protected, Research and Small Geothermal Systems	Support	<p>TDC has usefully clarified the roles of respective regional and district plans.</p>
141 Contact Energy Limited	PRPS2-141.22	Method 9.3.1 regarding a new provision specifically for Research Geothermal Systems	Support	<p>Research Geothermal Systems is a holding classification for a number of systems. Some of these systems will require significant disturbance within the reservoir to test potential linkages to adjacent Protected Geothermal Systems. In that case it is not possible to avoid all adverse effects. We support the 'remedy or mitigate' provision that MRP has suggested in order to prevent Research Geothermal Systems from becoming de facto Protected Geothermal Systems.</p>
142 Mighty River Power Ltd	PRPS2-142.49	Method 9.3.2 Significant Geothermal Features within Development and Limited Development Geothermal Systems	Support in part, oppose in part	<p>It seems that MRP is taking an extreme position here in suggesting that Development Geothermal Systems be deleted from this method, largely on the basis that EW practice and policy seem to differ with respect to management of effects on Significant Geothermal Features in Development Geothermal Systems. We do not support removing Development Systems from this method as it leaves Development Geothermal Systems in a limbo-land with respect to policy and methods around Significant Geothermal Features. However, we do not support a 'no adverse environmental effects' regime for the fields identified for development by the Council, nor do we think Council intends this as a matter of policy. There</p>

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				is a need for Council practice to align with Council policy.
8 Taupo District Council	PRPS2-8.25	Method 9.3.3 Managing effects on Significant Geothermal Features within Development and Limited Development Systems	Support	TDC has usefully clarified the roles of respective regional and district plans.
141 Contact Energy Limited	PRPS2-14.23	Method 9.3.3 b) and d)	Support	NZGA supports both appropriate small and large scale development of geothermal resources. Constraints on these developments should be reasonable. For Limited Development Systems it is appropriate that effects should be “avoided, remedied or mitigated” rather than just “avoided”. Similarly programmes for monitoring should be related to scale of development to avoid cost of monitoring obligations frustrating small developments. The heating of several homes on a field does not warrant a “comprehensive monitoring programme”, while a large scale power station certainly does warrant such a programme. We can also see the point of Contact’s reference to the natural variability of geothermal features. Geothermal features are variable and it is incorrect to assume that every change is man-made.
142 Mighty River Power Ltd	PRPS2-142.50	Method 9.3.3 a)	Support in part, oppose in part	MRP is trying to delete Development Geothermal Systems from policies related to management of effects on Significant Geothermal Features. This would leave Development Geothermal Systems in a limbo-land with respect to these, which we do not support. The current wording has no obligation to avoid effects, but it seems that this does not align with current practice.
141 Contact Energy Limited/ 198 Waikato Regional Council, Hamilton Office	PRPS2-141.24, PRPS2-198.72	Method 9.3.4 Mitigation of adverse effects	Support	The erroneous reference to Resources rather than Significant Geothermal Features is obvious. We also support the concept (and current practice) where ‘like for like’ remediation can occur within systems that may occur in the Bay of Plenty Region.
110 Sustainable Waikato	PRPS2-110.20	Method 9.3.4	Oppose	We are aware that currently a loose approach is taken to ‘like for like’ remediation. We support the flexibility that this provides, recognising that national as well as regional systems are being assisted through the current mechanism. Therefore we oppose attempts to constrain this, and especially to constrain remediation to close proximity to the affected site. The concept of constraining remediation to close proximity does not take full account of the portfolio approach being taken by Waikato Regional Council.
27 Waikato District Council	PRPS2-27.31	Policy 9.4 Development Geothermal Systems New provision around water	Oppose	NZGA recognises that domestic and municipal water supplies are essential services, but consider a requirement to “avoid” effects is too great. In the case of Tauhara consents, potential effects on roof water and ground water supplies to nearby domestic consumers were considered. Contact was able to satisfy local concerns with arrangements for extension of town supply to affected properties.

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		supplies		Thus if a provision around water supplies is to be included then it should be “g) avoids, remedies, or mitigates adverse effects on domestic and municipal water supplies”.
131 Energy Efficiency and Conservation Authority	PRPS2-131.43	Policy 9.4 New provision around electricity generation	Support	The NPS on Renewable Electricity Generation is in place, and should be appropriately acknowledged, particularly in this section on the Development Geothermal Systems. Thus we support a new provision recognising the benefits from geothermal use, takes and discharges for electricity generation specifically.
141 Contact Energy Limited	PRPS2-141.25	Policy 9.4	Support	We support suggested amendments which more closely match the Operative RPS, and ‘terms of art’ should be appropriately capitalised.
198 Waikato Regional Council, Hamilton Office	PRPS2-198.75	Policy 9.4 c)	Support	We support an explanation of the role of the Peer Review Panel based on the Operative RPS.
110 Sustainable Waikato	PRPS2-110.38	Method 9.4.1 renumbering Development Systems Large Scale Takes and Use	Support	Current methods are numbered a), c), d)... Clearly c) should be b), etc
141 Contact Energy Limited	PRPS2-141.26	Method 9.4.1 a)vi) and e)	Support	Contact is suggesting increased flexibility in the location that ‘like for like’ remediation is to occur. Their suggestion that it be extended to cover Bay of Plenty fields is consistent with developing cooperation between WRC and BOPRC. We agree that “shall address” is too onerous a term and that a requirement that a Discharge Strategy “shall consider” certain matters is appropriate.
142 Mighty River Power Ltd	PRPS2-142.51	Method 9.4.1 a) iii)	Support	The Environment Court has opposed the concept of single tapper and required that some mechanism be made for multi-users on a field. If MRPs suggested amendments make this clearer we are supportive.
198 Waikato Regional Council, Hamilton Office	PRPS2-198.76	Method 9.4.1 Specifically methods c) and e) x)	Support	WRC recognises that its plan does not <u>require</u> reinjection or injection of geothermal water, with discharge to the surface at worst being a non-complying activity. Some discharges at the surface are highly desirable e.g. at Tauhara there is a proposal to use steam condensate (a form of geothermal water) for irrigation purposes, and this will reduce calls on other sources of groundwater. Some discharges at the surface are nearly impossible to avoid unless at great cost e.g. of condensate from a cooling tower. It is appropriate to tone 9.4.1c) down from a requirement. Similarly we accept the rephrasing of requirements around use of a System Management Plan to address the risks of hydrothermal eruption under 9.4.1 e) x)
141 Contact Energy Limited	PRPS2-141.27	Method 9.5.1 related to Limited Development Geothermal Systems	Support	We agree that “no cumulative adverse effects” is too high a test, and the method should be expressed in terms of operation “in a manner whereby there are no significant cumulative adverse effects”.
141 Contact Energy Limited	PRPS2-141.28	Policy 9.7 related to Research Geothermal Systems	Support	Research Geothermal Systems are a holding category and testing is required to establish appropriate categorisation long term. Some fields have been placed in this category to avoid long term effects on Protected Geothermal Systems. The suggested amendment simply makes this clear, while enabling necessary testing.

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198 Waikato Regional Council, Hamilton Office	PRPS2-198.79	Policy 9.7	Oppose in part, support in part	There are clearly some weaknesses in the policy around Research Geothermal Systems (see earlier comments on categorisation of Research Geothermal Systems). This is a further attempt to clarify the definition, this time adding the clear exclusion of Small Geothermal Systems. See the earlier criticism around the counterproductive exclusion of parts linked to Development Geothermal Systems. We are supportive of inclusion of the explanation of acceptable research on a Research Geothermal System as this is carried over from the Operative RPS.
141 Contact Energy Limited	PRPS2-141.29	Method 9.7.1	Support	Some fields have been placed in this Research category to avoid long term effects on Protected Geothermal Systems. Significant discharge or injection is required to determine if there are any monitorable effects on the Protected Geothermal Systems. Without the ability to undertake the testing as enabled by Contact in this change the Research Geothermal Systems become de facto Protected Geothermal Systems.
131 Energy Efficiency and Conservation Authority	PRPS2-131.46	Method 9.8.1 related to Small Geothermal Systems	Support	NZGA is supportive of appropriate developments at any scale. The test of “no cumulative effects” is a high bar, whereas a requirement for these to be remedied or mitigated is consistent with the RMA. We also note that renewable energy solutions are to be encouraged generally, thus the wording “encourage” rather than “control” is appropriate.
198 Waikato Regional Council, Hamilton Office	PRPS2-198.81	Table 9-1 Significant Geothermal Feature Types	Qualified support	It is agreed that the relevant titles should be Significant Geothermal Features. These are not intended to be a comprehensive list of all geothermal features. We observe that while all of these geothermal features can be significant, they are not necessarily significant on every field. A footnote should be added to the table to that effect.
162 Director General of Conservation	PRPS2-162.61	Table 9-1	Oppose	Given that this table should be headed Significant Geothermal Features, it is not appropriate to list all geothermal features. Inclusion of all geothermal features could lead to the accidental redefinition of all features as ‘significant’ which is not the intent.