

To be read in conjunction with
the tabled evidence/statement



**HEARD BEFORE DR R SOMERVILLE QC (CHAIR), MRS G BAUMANN,
MR W GARDINER AND DR R CHAPMAN, MEMBERS OF THE BOARD**

WEDNESDAY 24 JUNE 2009

**HELD AT THE CHRISTCHURCH TOWN HALL FOR PERFORMING ARTS,
BOATERS ROOM, 86-95 KILMORE STREET, CHRISTCHURCH**

HEARING OPENED [10.05 am]

APPEARANCES

Mr P Horgan, Mr D Higgins & Ms M Willetts, Te Rūnanga o Ngāi Tahu

Mr A Gardiner, Sustainable Electricity Association NZ Inc

Mr A Willis, Environment Canterbury

Audio file: dpm 0072

MR GARDINER: (Mr Gardiner welcomes Te Rūnanga o Ngāi Tahu in Māori)

Mr Chairman, sorry I just want to translate what I've said so that the stenographer does not get confused. Greetings to Ngāi Tahu and this is not a formal welcome since this is your mana whenua and we're just greetings to you to come. It is important that we have a Māori perspective. I think you are the third group that's presented to us and there haven't been many Māori submissions and so I think it's great that you have been able to come and present to us. I'll hand to the Chairman now so we can proceed.

CHAIR: Kia ora. Thank you very much for coming and we appreciate your submission. We have read it and we look forward to discussing it with you and please present the way you wish to in speaking to it or reading it. I need to tell you that everything is being recorded and so it will find its way onto the website. Now I have with me Dr Chapman, Professor Chapman, Mrs Baumann and Mr Wira Gardiner. So please proceed. Thank you very much.

MR HORGAN: Kia ora. Thanks very much for that. I do have a copy of an annotated version of the submission with some additional notes in it that I'd like to just go through today. If I could take you to paragraph 3.1. I'd just like to start there and just work through the submission and feel free to ask questions as we go along or whatever suits you best.

Te Rūnanga o Ngāi Tahu is optimistic that the promulgation of the NPS for renewable electricity generation will help promote the development of innovative renewable energy generation technologies that will assist New Zealand to reach its target for renewable electricity generation of

90 percent by 2025. Te Rūnanga is acutely aware of the severe environmental consequences of climate change if left unaddressed, including the frequent extreme weather events, erosion and salt water intrusion from rising sea levels and the emergence of bio security threats from the spread of sub tropical diseases. We recognise the significance of the issues facing local and international environments and economies, are committed to addressing the problems raised by climate change.

Accordingly, we are genuinely supportive of measures designed to reduce New Zealand's CO2 emissions, provided that such measures appropriately recognise and incorporate tangata whenua values. We have provided specific comment on the objectives and policies contained in the National Policy Statement.

Objective 1, I won't read that out. At paragraph 4.2, Te Rūnanga is supportive of the intention of Objective 1, to ensure that the national benefits of renewable electricity generation are given appropriate weight and recognition by those charged with making decisions under the RMA. We do however note that to a considerable extent this should and in our view is, already occurring by virtue of the need for decision makers to have particular regard to the effects of climate change and to the benefits to be derived from the use and development of renewable energy. And that's Section 7(i) and 7(j).

Now Policy 1, at paragraph 5.2. Although the Ministry for the Environment has sought to emphasise in its Section 32 evaluation that the benefits of renewable electricity generation are subordinate to Sections 5 and 6 of the RMA, we do not consider that this message is adequately reflected in the wording of the NPS itself. While Te Rūnanga is generally supportive of the intention of proposed Policy 1, we are concerned that it implies the national, regional and local benefits of renewable electricity generation

may outweigh the purpose of the RMA contained in Section 5, especially the need to avoid, remedy and mitigate adverse effects, or the matters of national significance contained in Section 6. And we note here that if the desired outcome was that greater weight than at present be attributed to the benefits of renewable energy during decision making processes, then in Te Rūnanga's view, the appropriate course of action would have been to amend the RMA by elevating Sections 7(i) and (j) to Section 6, matters of national significance. Obviously the Section 32 evaluation decided that that wasn't the preferred course and so we're going down this avenue.

As the NPS is presently worded, there is the potential for adverse effects to be discounted in favour of promoting the national benefits of renewable electricity generation. Such an interpretation is contrary to the purpose and principles of the RMA and accordingly, we seek that the proposed NPS be amended so as to clarify that the benefits of renewable electricity generation do not supersede higher ranking Part 2 matters.

And in paragraph 5.5, I have proposed a new provision be inserted into the NPS just to make sure that that doesn't occur and that reads, "Nothing in the NPS affects either (1) the underlying requirement for all decision makers to promote the sustainable management of natural and physical resources and (2) the Section 7 status of the effects of climate change and the benefits to be derived from the use and development of renewable energy." Although it may be argued that such a policy is unnecessary as it merely states the standard legal position, it will serve as a useful reminder to decision makers as to how the matters of the NPS are placed or contextualised within Part 2 of the RMA.

Proposed Policy 2 and I want to spend some time on this. Te Rūnanga is particularly concerned with proposed Policy 2. Contrary to the Ministry for the Environment's assessment of the policy at pages 37 to 39 of its

Section 32 evaluation the inclusion of the policy in the NPS favours renewable electricity generation activities at the expense of the natural and physical environment.

Proposed Policy 2 potentially goes beyond the permissible scope of an NPS.

[10.15 am]

The purpose of an NPS is to state objectives and policies for matters of national significance that are relevant to achieving the purpose of the Act. That's Section 45(1). The purpose of an NPS does not extend to providing policy guidance about how the purpose of the Act, in this case Section 5(2)(c) is to be interpreted in particular situations. And in this context I refer to the passage of - to the words of Justice Greig in the New Zealand Rail decision, often quoted, but well worthy of repetition: "This part of the Act expresses in ordinary words of wide meaning the overall purpose and principles of the Act. It is not, I think, a part of the Act which should be subjected to strict rules and principles of statutory construction, which aim to extract a precise and unique meaning from the words used. There is a deliberate openness about the language, its meanings and its connotations which I think is intended to allow the application of policy in a general and broad way."

Paragraph 6.5. In our view proposed Policy 2 is seeking to do precisely what the High Court advised against in the NZ Rail case. It is seeking to extract a precise and unique meaning from the words used. The result of such an interpretation is likely to be that the decision will allow renewable energy generation proposals to proceed, notwithstanding that they will

result in the occurrence of more than minor, if not significant, effects on the environment.

Consideration should also be given to how decision makers should interpret proposed Policy 2 when assessing whether the effects of an application for a non-complying activity will be minor. Pursuant to Section 104(d). Decision makers should not be entitled to put to one side those adverse effects for which there are deemed to be constraints surrounding their ability to be avoided, remedied or mitigated. The NPS provides no guidance in respect of this issue.

In other words, is it intended that it should be easier for renewable energy proposals to pass the minor effects limb of the non-complying activity threshold test by discounting the severity of the effects pursuant to proposed Policy 2?

I want to just move over 6.7 and go down to 6.8. In respect of proposed Policy 2(1), Te Rūnanga o Ngāi Tahu considers that it will result in the nature and location of the renewable energy source becoming a default exemption to the need to avoid, remedy or mitigate adverse effects on the environment. It is likely that proposed Policy 2(1) will lead decision makers to provide for activities with severe adverse environmental effects simply on the basis that the nature and location of the renewable energy source makes it too difficult or expensive to avoid and/or mitigate them. In order to get a sense of the likelihood for proposed Policy 2(1) to undermine the duty to avoid, remedy or mitigate adverse effects it is necessary to examine the scope of the phrase, the nature and location of the renewable energy source. This statement is very broad and has the potential to bring a plethora of reasons against avoiding or mitigating an adverse effect into decision making. It is likely that consent applicants for renewable electricity generation projects will argue that their ability to

avoid or mitigate the actual and potential adverse effects is constrained by factors such as the need to optimise the efficiency with which the energy is harnessed, therefore making an intensive development necessary. The already modified or degraded nature of the existing environment, therefore making it acceptable to modify it even further, notwithstanding that it may still retain significant environmental or cultural values. And in this respect I refer to the situation in the lower Waitaki where notwithstanding the area's immense cultural significance, as a cultural landscape to Ngāi Tahu, the decision on Meridian's Northbank Tunnel application discounted the significance of the landscape because of the modification that energy development had already caused. We said at the time of the hearing that this was a double jeopardy that could be likened to benefiting from the proceeds of crime. Accordingly I asked the question, if this phenomenon, ie the discounting of the significance of effects because of the degraded nature of the environment is already occurring, then why the need for proposed Policy 2?

The next type of scenario that could arise as a result of proposed Policy 2 is the proximity of the renewable energy source to a local community, therefore making it impossible to avoid the adverse visual and amenity effects of the proposal, rather than finding an alternative location.

And finally, the lack of scientific certainty about either the state of the existing environment and/or the likelihood of the occurrence of adverse effects, therefore making it necessary to take a risk in terms of environmental effects.

It is also conceivable the proposed Policy 2(1) could create the potential for an applicant to claim and a decision maker to conclude that because of the nature and location of the renewable energy source the costs associated with avoiding or mitigating adverse effects are unreasonable in

the circumstances. This is unacceptable to Te Rūnanga. We strongly believe that there should be no lessening of the standard required in order to obtain consent for large scale energy generation proposals. Ngāi Tahu has already been forced to accept major modification and in some cases destruction of its ancestral rivers, lakes, wetlands and cultural landscapes. All in the name of so called progress. Why should Ngāi Tahu be placed in a situation where it's asked to sacrifice even more?

The potential scope of proposed Policy 2(2), 2(3) and 2(4) is also of concern. These provisions are likely to raise considerations such as the proximity of the renewable energy source to transmission lines and/or the national grid, thus making it uneconomic and unnecessary to consider alternative locations that may be more suitable from an environmental or cultural point of view.

In respect of proposed Policy 2(3), Te Rūnanga does not accept that there should be any preference given to existing renewable energy operations undergoing the renewal of their Resource Consents. The renewal process provides a valuable opportunity for existing operations to be refined so as to comply as far as reasonably practical with modern day environmental standards. The NPS should not seek to water down this process. The Environment Court has already developed a definition of the existing environment which helps to ensure that existing energy generation operations are not unreasonably penalised as a result of the past effects on the environment, and I refer there to the passage from the decision in Contact and in that case the Environment Court sought to ensure that the historical effects on the environment of abstracting geothermal fluid were not taken into account when assessing whether or not to grant a new consent for future abstraction. In my view, this is sufficient to ensure that there is a level playing field for both applicants for new energy generation

activities and applicants seeking to renew their consents for existing generation operations.

Proposed Policy 2 introduces four prescribed considerations which are intended to influence a decision maker's determination as to whether in the circumstances it is reasonable to avoid, remedy or mitigate an adverse effect on the environment. The approach is likely to result in the prescribed considerations being given greater weight than competing considerations relating to the scale and degree of the adverse effect in question.

[10.25 am]

Such an outcome would be contrary to the need to weigh all the relevant factors when applying Section 5(2)(c) as discussed by the Environment Court in Winstone Aggregates and in that case it was said, "The application of Section 5(2)(c) therefore must necessarily involve a consideration of all aspects of a proposal within the broader context of a sustainable management dependent upon the factual matrix of each circumstance." This calls for an assessment to be made in terms of the scale and degree of those effects and their significance or proportion in the final outcome. It is a pragmatic approach to sustainable management and also one that is designed to achieve an outcome that is fair and reasonable in each particular circumstance and in my submission that's entirely consistent with the words of Justice Greig in the NZ Rail case.

Proposed Policy 2 should either be removed altogether or amended to better reflect the ongoing need when applying Section 5(2)(c) to renewable energy generation proposals to take into account all potentially relevant considerations, especially those relating to the scale and degree of the effects on the environment. Te Rūnanga o Ngāi Tahu is not

opposed to the promotion of renewable electricity generation, provided it does not occur at the unreasonable expense of the local environment. Such development would clearly not be in keeping with the promotion of sustainable management. Accordingly, proposed Policy 2 goes too far towards promoting the national benefits of renewable electricity generation over the need to avoid and mitigate the localised adverse environmental effects.

Te Rūnanga considers that Policy 2 will detract from the explicit and overarching duty to avoid, remedy or mitigate the adverse effects of a proposed activity. In doing so, proposed Policy 2 risks undermining the achievement of the purpose of the RMA.

In addition, it is the experience of Te Rūnanga that even under the existing system, ie with no National Policy Statement, numerous large scale renewable energy proposals with significantly more than minor effects on the environment have successfully managed to obtain Resource Consent. For example the Northbank Tunnel and Project Hayes wind farm, although it is acknowledged that both of those consents are still subject to Environment Court appeals and in this context I note that Ngāi Tahu has adopted a reasonable approach in that it did not lodge an appeal against the Project Hayes wind farm and has withdrawn its appeal against the Northbank Tunnel. We have not sought to unreasonably delay the development of large scale renewable electricity generation.

Proposed Policy 3 and this is about the reversibility of a proposal. Te Rūnanga strongly supports the incorporation of proposed Policy 3 into the NPS. In order for a energy generation proposal to be genuinely renewable it must also be reversible. An electricity generation project cannot be referred to as renewable unless at the end of its life span it is capable of being dismantled and the environment returned to its original

state. Te Rūnanga hopes that one of the outcomes of the NPS is that a more strategic approach is taken to the development of innovative ways of renewably generating electricity and in doing this a strong emphasis must be placed on the development of reversible forms of renewable electricity generation such as solar, wind, tidal, wave and ocean current.

Te Rūnanga hopes that until such time as these reversible forms of renewable electricity generation are ready for large scale uptake, we don't push the panic button and proceed with less sustainable forms of development. The idiom 'more haste, less speed' has some relevance in this context.

To date, Te Rūnanga has favoured wind generation over hydro electricity generation. Our involvement in Resource Consent processes such as the Northbank Tunnel concept on the lower Waitaki and the Project Hayes wind farm has provided us with opportunities to research and document the potential effects of these activities on Ngāi Tahu values and sites of significance. The effects of hydro generation on Ngāi Tahu values and sites are clearly more significant than wind farms in these examples. In respect to hydro generation, Ngāi Tahu has long held the view that although the water itself might be renewable, the rivers themselves are not. In fact, for the reasons outlined below, all most all of Ngāi Tahu's experiences with hydro have been negative. Wahi tapu and wahi taonga areas have been inundated and lost. As a result, named and active associations are broken and Ngāi Tahu cultural relationship with the area is weakened and damaged. Previously valuable mahinga kai areas have been similarly destroyed. Fish movement within risk river systems has been disrupted. The character of the cultural landscape of the area is irrevocably altered. The minimum flows are not considered adequate. Dams have interrupted the continuity of flow from the mountains to the sea, which conflicts with the Ngāi Tahu philosophy of ki uta ki tai and

dams trap sediment and coarser materials needed to replenish the eroding coastal environment. Nowhere are the adverse cultural effects of hydro electricity generation more acutely apparent than within Ngāi Tahu's very own ancestral river, the Waitaki. The Waitaki river to which all Ngāi Tahu whānui whakapapa has been permanently modified and degraded by the development and operation of the upper and mid Waitaki Power Stations. The trend is likely to continue with the Northbank Tunnel concept. The outcome for Ngāi Tahu is that its relationship with the Waitaki is severely and irreversibly eroded and at this point in time I would like to ask David Higgins to present a narrative of his impressions of the effects on Ngāi Tahu values of the Waitaki scheme.

MR HIGGINS: Kia ora tatou. (Opening in Māori).

This is an ancient whakapapa, a recitation of the whakapapa of Te Waka a Aoraki, the South Island of New Zealand. This was a recitation created by my great, great, great grandfather, Rawiri Te Mamaru who was the (inaudible) of Moeraki in the mid 1800s.

(Speaking in Māori). Greetings to our atua, Aoraki our mountain. To our lakes and our rivers. To all the mountains of Ka Tiritiri O Te Moana, the Southern Alps. Greetings especially to (inaudible) karoī matou o Aoraki (ph), the Waitaki River.

[10.35 am]

I want to speak this morning briefly with respect to my relationship and my family's relationship to the Waitaki river and the importance of the Waitaki river to generations of our people. I Mihi to my river; our people Mihi to our river. Whenever a kaitahu korero stands to speak on the paipai, he always speaks of karoī matou o Aoraki (ph), the Waitaki river. The

importance of Waitaki, the tears of Aoraki are expressed in waiata, kinaki and korero from one end of our rohe of this Island to the other.

To the Commissioner's assembled before us, tena koutou. Greetings from Moeraki and a special greeting to Wira and his whanau and to my cousin, Royden. The last time I saw Royden we were debating the issues over Holcim in Oamaru Environmental Court. A session that was prolonged, went on for months. It is good again to see you Royden. It's a delight to have a Moeraki person sitting before me and the last hearing that we had here, Gail Tipa sat where Wira is hearing all about the Hurunui River and what we had to say about that particular (inaudible).

As explained earlier my name is David Higgins. I'm from Moeraki, a little port just south of Oamaru, north of Dunedin and next-door to the marae that Wira's wife, Hika, comes from, at Karitane Puketeraki. A delightful little place with wonderful traditions and history.

I'm the Upuku Runaka (ph) of Moeraki. It's that role is as spiritual and traditional leader of our people from home. That appointment was granted to me at the death of my grandfather David Leonard, back in the 1980s. I have been Upuku (ph) for 25 years and in this role as Upuku (ph) I have a responsibility that I take extremely seriously. I was brought up in this wonderful little harbour village of Moeraki in Otago. I spent many hours and many days with my relations walking the length and breadth of the Waitaki valley.

I would like to share some of those experiences with you as Commissioners today as to give you an overview of my life and the life of our people surrounding this particular river.

The reason why we've picked the Waitaki is obvious. It is the awatapu of our people, but it also is a river that has been damaged to an extent that the Māori, the mana, the wairua of our river has gone forever.

Firstly I'd like to discuss the whakapapa and importance of the relationship of Aoraki o (inaudible), our supreme ancestor. To kai tahu whanui and to all those tribal connections that we have had - have from the past, Aoraki is an atua, a supreme being that stands above us all. From the early people of Kahui Te Pua, the Rakawai (ph) people, our ancestors of Waitaha ka te mamou (ph) and (inaudible) our respected allegiance to our mountain and to our rivers are sacrosanct. Our tribal connections and traditions with our mountain and our river are of the utmost importance to us as a people. Many of these traditions stem from the waka atua or the canoe of the Gods Arai-te-uru. Arai-te-uru was wrecked at the place just south of Moeraki called Matakaia (ph) and those traditions are the traditions of our creating stories of the creation of the island, more liberally described as Te Wai Pounamu or the South Island. The importance to our people of this river and the significance of those wahi tapu and pa sites that dot the landscape from Aoraki to the sea are remembered and recited in whakapapa and traditional stories.

The last of those settlements was a place called Korotuaheka at the Waitaki river mouth. My mother as a young girl lived on the southern banks of the Waitaki river with her toa, her aunty, Aunty Tau (ph) and Aunty Tau (ph) and my mother lived there for about five years before the village was done away with by the local farmer and my toa died and my mother returned to Moeraki.

I am proud to be the descendent of those people who lived at te Korotuaheka and I'm proud to be a trustee of that reserve today. The area of responsibility or the takiwā of my people of Moeraki is called or

described as te ahi tapu (ph) or Tamatea-Pokai-Whenua. In English that means the burning fires and the ash left from those burning fires of the ancestor, Tamatea. Tamatea was from the East Coast of the North Island, but his influence extended from one end of this country to the other. Many of our place names remember the troubles of Tamatea-Pokai-Whenua. The white stone that is prevalent in the north Otago region is the description I have just given you for the unburnt and burnt fires of Tamatea-Pokai-Whenua.

As I have previous described, I was born and brought up at Moeraki. Spent all of my childhood there until I was pushed or shoved off to boarding school. I went to boarding school at Waitaki Boys High School and in fact from my dormitory in the third form dormitory overlooking the playing fields at Waitaki Boys I could actually see Moeraki. After leaving school I had the pleasure and privilege of representing the Arowhenua area on the Ngāi Tahu Māori Trust Board. That pleasure extended from the time prior to the Waitangi Tribunal Hearings and into and including the settlement of our claims. During that time I was given the responsibility along with my dear cousin, the late Kelvin Davis, or Kelly Davis of Waihau to be an invited member of the Lower Waitaki Working Party. That was constituted initially by Electrocorp, but during that period when discussions were being held about the future of the lower Waitaki area both Kelly and I made it very clear that you can't separate the upper Waitaki basin from the lower Waitaki valley.

The influence of our mountains and the effect that those mountains would have on our river as a result of all the work that we did with Electrocorp at that time a publication was produced called ko Waitaki te awa (inaudible) by (inaudible) with the assistance of Kelly Davis and myself.

In this wonderful little booklet that I can make available to the Commissioners if you wish, there is an insight to our history. Although brief, but it also gives an idea of where Meridian were coming from way back then when they were Electrocorp. And some of the ideas that they had at that time, including the left bank, the right bank and the river projects that are included in this little booklet.

Once I had departed the Ngāi Tahu Māori Trust Board and settlement was exacted upon our people, Te Rūnanga o Ngāi Tahu became an entity in its own right and since that time I have been employed by Te Papa Atawhai as the Pou Kura Taiao for the Canterbury Conservancy. I represent the interests of the Department and consult directly or indirectly with our runaka of this particular (inaudible).

It's an extremely important role and although I'm not here representing Te Papa Atawhai today or the Department, I am representing my own people. The role that I have to play as Pou Kura Taiao or as cultural manager with the Department is extremely important in terms of the relationship capacity we have between the two Treaty partners.

My mother who is still alive is presently a shareholder and owner in some of the blocks and reserves on the Waitaki river and I must say that so will Royden be and Hika from Puketeraki. As those reserves to my disgust and to the disgust of my grandfather, when he were alive, seem to slowly but surely be further away from our beloved river. As time has gone by the river has found its own course and as time has gone by, as water is removed from the river, therefore those particular fishing easements and reserves seem to be further away from the main stems of the river itself.

[10.45 am]

My great grandmother, Hura Hapiti Tipa was one of those individuals who went in the 1870s to Ahuriri with Te Mai Haroa and lived in that area at the upper Waitaki valley so as to ensure a hika was maintained in that particular area.

Te Mai Haroa ensured that all of those wahi tapu areas of the Waitaki valley were cleansed by karakea, so as to ensure that we could enjoy the fruits of the Waitaki in an uneventful way. Te Mai Haroa was the tohuka or chiefly person of the Waitaha people from whom we all descend. He spent much time in the Waitaki valley and until he was removed forcibly by the constabulary at the time back to the Waitaki river mouth he spent an enormous amount of time in the high country, particularly in the McKenzie country, the upper Waitaki valley.

Of course any river, as we all know, has some intrinsic values and the value of the Waitaki particularly was our means of transport, the ability for our people to gather and preserve mahinga kai. All those particular resources that we required to see ourselves through a calendar year and a number of different natural resources were gathered from the Waitaki river valley. Mahinga kai as we've spoken before at many hearings is all about the gathering and preservation of natural resources, whatever they may be. Throughout Canterbury and Otago and in most of our museums you will see examples of our gathering techniques and the way we transported those particular natural resources and the Waitaki river was famous for the development or the creation and further development of what we describe as the mōkihi or the raupo raft. We call them mohi in the South and those mohi are still part of our tradition and histories and there are a number of family members throughout this rohe that still design and build those particular raupo rafts. Wonderful manner in which to navigate a river such as the Waitaki.

Moeraki is the home of the matua o (inaudible) o kai tahu whanui. His name as a tohuka is displayed throughout our rohe, but people know him as Tiramōrehu. Tiramōrehu himself whose bodily remains are buried at Moeraki was of the senior lines of Ngāi Tūāhuriri hapu of this area and from Kaiapoi pa. Tiramōrehu, who was taught the skills and the knowledge of the wharekura, the ancient teachings of the high priests of Kati Wairakei of the West Coast. During his time as a leader of the Moeraki people and the people of Kai Tahu Whanui, in the mid 1800s, Tiramōrehu was seen as the voice of the tribe, that respect given to our tohuka was as a result of his learnings and of his ability and his knowledge. He and his father, like my great grandfather Peter Tipa were defenders of Kaiapoi pa against the resurgent Te Raupraha and Ngati Toa.

Finally, I would like to describe my particular and personal experiences on the Waitaki because that's why we are here and the effects that the change in the river has had on a person of my tender age.

I am still young enough to remember only one dam on the Waitaki. Not sure others are here. The only dam I remember was the Waitaki dam itself. No one, I repeat no one, ever went near my people at Moeraki to ask, to consult with, to advise, to inform of any activity on the Waitaki river. And it's been a pain for all of us over many generations that as we travel up the Waitaki River and remember walking where Lake Benmore now exists up that wonderful valley that many of our taonga, many of our wahi tapu have disappeared for ever. The first time I can remember being taken to Te Puno Omaru one of the little Māori reserves on the lower Waitaki was with my grandfather and Kelly Davis's father and we went to have a look at an urupa just a little cemetery reserve and a wahi tapu place where our ancestors were buried. By the time we had crawled through the bramble and gorse and broom and located the site of our

urupa we noticed the fact that there was still some wetland nearby. Since that time Te Puno Omaru has fallen into disrepair as many of our other little kites on the river and this to me is a sad commentary on both our responsibilities to care for those kites and to care for those wahi tapu and those treasures as much as it is for others who manage the river.

My grandfather being a commercial fisherman gathered from the valleys ascending from the Waitaki basin supplejack for his crayfish pots. That was always a privilege to go along on those valuable trips, they were learning trips although at the time I was not aware that they were important for my education. At times we would stop and visit Takeroa (ph) or Maerewhenua the rock art drawings in the Duntroon area where the ancient's drawings are now protected and reserved for our people and by our people.

Over my number of years of having spent time on the river as a youngster then as a teenager and more latterly as a father and grandfather I note that the tributaries feeding into the Awatapu Waitaki, the rivers such as the Maerewhenua seem to be drying up. The distance that these rivers have to force their way across what was once a braider river system seem to be endless and in time those small tributaries are nothing more than a trickle.

I have been asked to comment on my feelings about the changes that have taken place on the Waitaki and what has been disturbed over many, many generations. There's a particular rock art design that some of you may be aware of and it's the design of the Kiwi embryo). And that particular design is seen as resplendent in most of our wharehenui throughout our rohe. And even in the north, some of the northern tribes have identified the Kiwi embryo as an important indicator and they've placed them in rafter patterns or in kowhaiwhai throughout their meeting houses.

I can still remember the day that they started flooding the lake that we now describe as Benmore. I can't remember the tears, but I acknowledge the

fact that my grandparents were really quite disturbed and upset at the fact that the lake would flood a particular cave where that ancient drawing of the Kiwi embryo still exists today. We're fortunate enough that Electrocorp actually took some what you could only describe today as GPS readings of those particular sites and they have been mapped onto an A4 page; you've got to remember that it's completely flooded and under water.

[10.55 am]

So that's just something for the Commissioners to at least inform you that the matter of consultation was the issues were not as important as they are today.

I believe ladies and gentleman that the mauri and the spiritual dimension of our river has disappeared for ever. Its been degraded to a level that we now believe that the mauri of the river is determined and controlled by a button at Tekapo B, which is rather unfortunate.

Over the last two months Meridian has pumped more water down the Waitaki River in that short period than they have allowed for many, many years. The difference in the river, watching bank to bank flooding at the Waitaki River state highway one bridge is just amazing.

I'd like to finish by saying that we can't change what has happened in the past, but I am determined just as my fellow tribal members are and support the initiative that if we're going to do anything with renewable electricity generation that we ensure that whatever we do is reversible. We know we can't take the dams away and that is just physically impossible, but anything we do in terms of renewable electricity generation I look forward to the overarching National Policy Statement including a provision that we have some reversible options available to this nation.
(Closing statement in Māori).

MR HORGAN: Kia Ora thanks David I'd just like to move down to the conclusion

and just read that paragraph. “The most important thing for Te Rūnanga o Ngāi Tahu is that the promotion of renewable electricity generation does not in any way weaken the duty to avoid, remedy or mitigate the adverse effects on the environment. In order to ensure the achievement of this requirement, the proposed NPS should be amended to reinforce the fact that it in no way elevates the national benefits of renewable electricity generation further up the Part 2 hierarchy of considerations.” Kia Ora thank you.

CHAIR: Thank you very much Mr Horgan. With all your experience in developing policies and such we would like to take advantage of that. Thank you so much for your submission and I would be grateful if we could work through some of your suggestions? And it may be too that Mr Higgins wishes to add anything as we go if you could come forward to the lectern. Now, first thing is has the Runanga actually made a submission on the Freshwater Policy Statement?

MR HORGAN: Yes we certainly have a very detailed submission which look we would be happy to make available to you via Josie?

CHAIR: Yes please.

MR HORGAN: I will do that.

CHAIR: That will be very helpful. The other matter is that you’ve mentioned your concerns about trying to reduce the importance of Section 52(c) and you make that point in Policy 2 very strongly. Have you had a look at the proposed National Policy Statement on Transmission?

MR HORGAN: No to be frank with you. That’s not a policy that we’ve had a lot of opportunity to be involved with, so my knowledge of it is rather limited.

CHAIR: I wonder whether, and there’s no hurry for this, but if you’d be kind enough to have a quick look at that. Because within that policy which is

on electricity transmission, within that policy statement there are a number of policies that appear to address the point you're making in assisting with any balancing approach.

MR HORGAN: Okay certainly.

CHAIR: And if you could look at that.

MR HORGAN: And just provide some comments?

CHAIR: Again through Ms Beruldsen. And finally, before I invite my colleagues to discuss some matters with you, the proposed New Zealand Coastal Policy Statement did you make a submission on that?

MR HORGAN: Yes once again a detailed submission and we presented to the Board of Inquiry we actually did a presentation at Puketeraki Marae at Karitane and I can make available the submission and the evidence on that.

CHAIR: Oh we'd be much obliged thank you so much for that. Now perhaps we can just move through the policies.

MR GARDINER: Mine are general issues. (Speaking in Māori). I'm glad you stood to express your views and the association with the Waitaki. One of the things about water and we haven't had a look yet, is there more space on the Waitaki to put some more dams?

MR HORGAN: I think they've just about squeezed every last drop out of it.

MR GARDINER: So we're talking about in terms of the Waitaki, that it's pretty much?

MR HORGAN: From my understanding is it's finished now with the North Bank Tunnel being the last bite of the cherry, so to speak really.

MR GARDINER: And I notice that in terms of reversibility you're very supportive

of that and I was thinking about the practicalities of reversing the dams, given that we've heard evidence that dams can last for 50, 60, 100 years with little bit of retrofitting. And really the practicality of reversibility of existing structures, which is why I asked you the question was there more capacity to put some more?

MR HORGAN: Yeah we're certainly not optimistic that the existing structures will ever be reversed, but we do hope that in future greater thought is given to ensuring that new development is reversible.

MR GARDINER: And I notice your emphasis on supporting wind farms and your growing knowledge of electricity generation. The practicality of wind farm capacity ever reaching - I know your views on hydro power is quite strong, but really the practical affect of wind farms being the kind of solution to the growing demands of the South Island and the North Island?

MR HORGAN: Certainly understand the dilemma and we appreciate the fact that wind farms are more a supplement to the national grid rather than the staple. Because the energy generated from wind turbines can't be stored and so that's a obviously a very limiting factor. But we do think that there's greater scope to develop wind energy but as mentioned we also look towards ocean, wave, current and tidal and solar and we have significant hope that those will deliver some fruitful outcomes.

MR GARDINER: This is a broader question now, I'm aware that Ngāi Tahu and (inaudible) and others are looking at property rights around water, are you able to comment on where Ngāi Tahu sits on the general water debate? If for example you're able to persuade the government that it's a property right and the property right belonged to you it will obviously have some significant impact on electricity generation?

MR HORGAN: Those discussions are probably going on at a slightly higher level than myself, so I would probably prefer not to get into that issue in

depth if that's okay.

MR GARDINER: That's fine.

MRS BAUMANN: I understand that Ngāi Tahu is somewhat entrepreneurial in its activities, are you involved in any way in any research on renewable energy, any developments?

MR HORGAN: Not that I'm aware of.

MRS BAUMANN: Because you do suggest solar and tidal, but you yourselves are not investigating that?

[11.05 am]

MR HORGAN: I don't think we've got that far down the track, but it's certainly something to consider for the future.

MRS BAUMANN: The other question is Manapouri is that within your rohe?

MR HORGAN: Yes.

MRS BAUMANN: And what are your views about that?

MR HIGGINS: It's very political Manapouri and the fact that a huge electricity generation capacity is being pumped into a particular area which is related to the creation of aluminium. The tribe itself were, again, opposed to the initiative way back in the 1970s but the attitude of the government at the time we were well aware of and there was no consultation, or very little consultation with the tangata whenua at the time. We were completely taken by surprise as a tribe that the contract would have been renewed at the time it was without due consideration to the tangata whenua again, so we're not completely happy with the process that the government has gone through in terms of Manapouri and feeding one particular contract with power - "chief power" as we describe it.

MRS BAUMANN: Sorry contract you mean supply contract?

MR HIGGINS: Yes with Comalco.

MRS BAUMANN: That's a matter for Meridian is it?

MR HIGGINS: It's a matter for the government, New Zealand government as far as I'm aware.

MRS BAUMANN: Well between Meridian and Comalco, it's not the government?

MR HIGGINS: Yeah.

MRS BAUMANN: What about the second tunnel did you support that?

MR HIGGINS: We had, again, no direct consultation with Meridian energy over the creation of the second tunnel. That second tunnel was something that was done without due consideration to the environmental or cultural affects.

MRS BAUMANN: Okay. And the current proposals for -

MR HIGGINS: Not sure about those.

MRS BAUMANN: Not sure, thank you.

DR CHAPMAN: Yes thank you very much for your evidence and statements and I should say that I'm not a lawyer, but there are a few points in here that I'd just like to examine to clarify them by some of the issues. But before we get into that sort of language I'm just referring to your paragraph 3.2 you state that "we generally supported the measures designed to reduce New Zealand's carbon dioxide emissions provided that such a measure is appropriately recognised and incorporate tangata whenua values." Can I just explore, does that recognise the urgency and importance of cutting emissions given despite - perhaps I should say despite the sort of things

we've heard in evidence about doubts about climate change actually taking place and being caused by humans. Am I right in -

MR HORGAN: You are right Ngāi Tahu has policies in respect of climate change and its doing its own bit to try and ensure that CO2 emissions are reduced and is as set out in 3.2 totally supportive of measures to reduce emissions.

DR CHAPMAN: Would you accept that at some point there may be some trade offs though, that to cut emissions in New Zealand for example in the electricity generation sphere may require us to increase renewable generation quite significantly and that may in turn have some affects on some of those values. And here I'm looking towards the sort of pressures they may come on New Zealand to significantly increase renewables, international pressures and internal domestic pressures, in order to cut thermal generation for example. So would you accept that there may be some trade off between -

MR HORGAN: Oh I think those trade offs are already occurring. I think that there's been a pretty significant momentum over recent years already behind increasing the rate of renewable electricity generation; I think its up to 60 or 70 percent now, obviously needs to get higher than that. So I think the trade offs are already occurring and I just want to make sure that we don't throw the baby out with the bathwater so to speak and cross the line where it becomes genuinely unsustainable the other way.

DR CHAPMAN: One of the concerns that we had is to get the right balance I suppose and this is to explore the right balance; we certainly heard evidence that energy efficiency can be increased, electricity efficiency can be increased. And that that may be a way of cutting electricity demand. So what's your view on the balance between, if you like, increasing the efficiency of electricity use which is one of the considerations in Section 7 (ba) of the Resource Management Act vis a vis taking actions to

enhance renewable energy. If it came to a trade off would you rather emphasis placed on energy efficiency or on increasing renewable generation?

MR HORGAN: I think it would be a combination of enhance energy efficiency and the development of reversible forms of renewable energy.

DR CHAPMAN: Okay thank you.

MR HORGAN: I guess not put too finer point on it, we've had enough of the destruction of our rivers and our lakes and our wetlands, so other than that we're open minded about ongoing development.

DR CHAPMAN: Okay thank you. Turning to paragraph 5.3 you state that you are concerned that Policy 1 implies that the benefits of renewable electricity generation may outweigh the purpose of the RMA under Section 5. Then you go on to say "if the desired outcome is that greater weight be attributed to the benefits of such generation, then the appropriate course of action would have been to amend the RMA by elevating Section 7(i) and (j) to Section 6 matters of national importance."

MR HORGAN: Yes.

DR CHAPMAN: Is an amendment to the Act the only way forward if that was the intent, or is an NPS a reasonable alternative to amending the Act?

MR HORGAN: I have no doubt that an amendment to the Act would have been a much more assertive way of achieving the outcome. I think that that would have made it loud and clear that these factors are to be given the utmost attention during decision making processes and it would have upped the ante. I think a National Policy Statement faces the challenge that whatever it says, the factors around climate change and renewable energy remain as just Section 7 considerations. Which should generally be given less weight than Section 6 and Section 5 matters. So I think a

National Policy Statement is somewhat on the back foot, but that's not to say that it's still not Ngai Tahu's preferred approach, because it moderates between on the one hand gaining some greater level of emphasis on renewable energy, but not at the cost of the environment. So I just think that it would be useful for some commentary to be provided that a power to contextualise the various factors within Part 2.

DR CHAPMAN: I'm just concerned to clarify here this matter and whether the intent of an NPS was to outweigh the purpose in Section 5. It seems to be unlikely in the way the whole NPS is proposed, the NPS is constructed. And I guess the fact that also the fact that the Act was not amended seems to me to point to a wish not to elevate renewable electricity generation to something more important in Section -

[11.15 am]

MR HORGAN: That's right and as I've said in paragraph 5.6 perhaps the proposed policy is unnecessary in that it merely states the standard legal position but just by way of clarification I think it could be helpful to the decision makers to just be reminded of where things sit.

DR CHAPMAN: In your para 5.5 you say you propose an additional policy element along the lines that the Section 7 status of the affect of climate change etc, nothing in the NPS should affect that Section 7 status. So are you making a contra distinction to Section 6 status?

MR HORGAN: Yes.

DR CHAPMAN: In your 6.2, just round policy 2, you say "contrary to the Ministry for the Environment's assessment of the Policy, the inclusion of this policy in the NPS favours renewable electricity generation activities at the expense of the natural and physical environment." Now, I have to say that's not the interpretation that stands out for me. Where does it give priority to renewable energy generation at the expense of the natural and

physical environment?

MR HORGAN: Because it potentially reduces the extent to which adverse affects may need to be avoided, remedied or mitigated. Because of the constraints surrounding the nature and location of the proposed renewable energy source.

DR CHAPMAN: I understand that, it's just a question of the word "favours" at the expense?

MR HORGAN: I think "potentially favours" could be more appropriate wording.

DR CHAPMAN: "Could be interpreted to favour"?

MR HORGAN: "Could be interpreted to favour" would be a fairer statement.

DR CHAPMAN: Okay, thanks for that clarification. Just to confirm in your para 6.5 as you read it through you said, and I'm referring here to the very last line in this page which reads, in our version: "not withstanding that they will result in the occurrence of more than minor affects on the environment."

MR HORGAN: Yeah.

DR CHAPMAN: You added the words "if not significant affects" I think?

MR HORGAN: Yes.

DR CHAPMAN: Yes just to clarify that, confirm that thank you.

MR HORGAN: Yes. I think there's already more than minor affects occurring as a result of renewable electricity generation development, but I think what's likely to happen is that the level will be raised even further.

DR CHAPMAN: Okay.

MRS BAUMANN: Have you got evidence of any of that?

MR HORGAN: Oh I'm just speculating based on the proposed wording as to what might happen I haven't -

MRS BAUMANN: But you said "currently there are"?

MR HORGAN: Well I think David's narrative about the cultural impacts on the Waitaki.

MRS BAUMANN: But that's under an old regime, but under the current modern regime?

MR HORGAN: I don't have - I mean it's - I guess it's a somewhat subjective assertion, but what I would say is that I think that proposals are being given the green light not because their affects are less than minor, but because the positive effects of renewable electricity generation offset the degree of adverse effects.

MRS BAUMANN: Can you give me an example of that?

MR HORGAN: I think North Bank Tunnel is a fine example of it.

MRS BAUMANN: But that's under appeal?

MR HORGAN: That's under appeal so yeah, I mean I can't think of anything that's -

MRS BAUMANN: To my knowledge there's been no new hydro approved "new" for sometime unless it hasn't come to my attention.

MR HORGAN: The Arnold River proposal could be an example of one that's been recently approved, I'm not sure what stage that is in the process.

MRS BAUMANN: That's under appeal.

MR HORGAN: That's under appeal as well, so I'm just not aware of any that aren't still going through the system.

MRS BAUMANN: Okay thank you.

DR CHAPMAN: Now around this question of affects, are you aware of the Meridian proposal to introduce wording referring to the more than minor affects? Look, I don't have the wording in front of me but it's along those lines?

MR HORGAN: Where they're proposing that we should tolerate more than minor affects. I just think that that's ultra vires to Part 2, Section 5 of the Act. I think that you're starting to, by default, make amendments to the RMA itself by introducing such a policy.

DR CHAPMAN: If it were argued that that was merely rebalancing or re-weighting or re-weighting the wording of the intent of the Act, would you accept that?

MS WILLETTS: Well if it was done

MR HORGAN: Sorry, I apologise for not introducing Maree Willetts earlier. Maree is the manager of the environmental team at Te Runanga.

CHAIR: Well welcome Ms Willets.

MR HORGAN: So, I mean, I do apologise.

MS WILLETTS: I'm sorry, I couldn't keep quiet about that one.

CHAIR: Could you just identify yourself for the record?

MS WILLETTS: Sorry, Maree Willetts. I'm the manager of Toitu te Whenua the environmental manager at Te Runanga o Waitaki.

CHAIR: Yes thank you. And please if you don't wish to be standing there all the time, you can sit down and come forward as you need to.

MS WILLETTS: Sorry, if you're proposing that the policy statement contains what is effectively an amendment to the Act without amending then Act, then I don't think that we could support that.

DR CHAPMAN: Yes well just to clarify, I'm not proposing anything.

MS WILLETTS: Sorry if Meridian are proposing -

DR CHAPMAN: I'm just trying to clarify your views on what other submitters may have sought and I'm interested in your views on the Meridian submission and evidence which did, as we noted, talk about tolerating more than minor effects and the question really I guess to clarify for us is, whether you consider that more than simply an interpretive re-weighting of considerations under the Act.

MR HORGAN: I think that goes too far. I think the whole ethos of the RMA and the case law that's evolved under it is around that threshold of minor effects and that's been the yard stick that we've used and to try and re-weigh or rebalance that via a National Policy Statement I think is going further than stating policies on matters of national significance, which I think is the purpose of the NPS.

DR CHAPMAN: That's very helpful and am I right in thinking that that would constitute giving a precise and unique meaning as Justice Greig indicated -

MR HORGAN: Yes, it would constitute that.

DR CHAPMAN: It would be an example of that sort of -

MR HORGAN: It would be an example of that sort of behaviour, yeah.

DR CHAPMAN: Okay, that's helpful thank you. In your 6.9, para 6.9, second bullet point on page 7, talking about the Northbank Tunnel application, we said at the time of the hearing, if I could just read it out to you to set the context, "we said at the time of the hearing that this was a double jeopardy that could be likely to benefit from the proceeds of crime. Accordingly I asked the question, if this phenomenon is already occurring then why the need for a proposed Policy 2?" My question there really is, is addressing constraints which is the intent of Policy 2, not different from taking into account existing degradation?

[11.25 am]

MR HORGAN: Yes, possibly there is a subtle difference there. I do acknowledge that, but it's been a sore point for Ngāi Tahu that a cultural landscape as significant as the Waitaki doesn't qualify as an outstanding natural landscape because of the modifications it's incurred as a result of hydro and so we get penalised yet again because of what's already occurred and our concerns get downplayed. But I do take your point, I think there is a distinction between that type of a phenomenon and the constraints.

DR CHAPMAN: Right. But your concern remains that you don't wish to see any further degradation and the degradation that's occurred should not be used as a reason for -

MR HORGAN: That's right. Yes.

DR CHAPMAN: Okay thanks for clarifying that. In your 6.15 you argue that this approach is likely to result in the prescribed considerations being given greater weight than competing considerations, relating to the scale and degree of the adverse effect in question. Such an outcome would be contrary to the need to weigh all relevant factors. I'm not clear about your logic there and I just wonder whether giving weight to some does not preclude considering more.

MR HORGAN: I don't think it precludes it, but it may place the constraints around avoiding or mitigating adverse effects at the forefront of the decision maker's mind and could result in the actual scale, nature, intensity, character of those effects and the impacts that that has on people and communities and Tangata Whenua playing second fiddle to the constraints. Does that help at all?

DR CHAPMAN: Well I understand what you're saying, yes. On Policy 3, Section 7, we note your strong support for the reversibility idea. You however, perhaps suggest an interpretation of renewability which is unusual. You say, "a project cannot be referred to as renewable unless at the end of its life span it's capable of being dismantled and the environment returned to its original state." Am I right in thinking that that's an unusual definition of renewable, given that renewability usually refers to the resource such as the flow of water or the flow of wind --

MR HORGAN: Yeah.

DR CHAPMAN: -- than the facility itself?

MR HORGAN: Well if I can just go to paragraph 7.5 where I say that “although the water itself might be renewable, the rivers themselves are not,” so I think that’s probably what I would point to as being what I really mean when I say that.

DR CHAPMAN: Right. So you are concerned to preserve the renewability of the features of the environment in a sense.

MR HORGAN: That’s right. That’s right. Not just the raw resource that’s being used to generate the amenity.

DR CHAPMAN: You’re seeking to ensure that even if the water is renewable in some sort of narrow sense, that the environment which creates it is not irreversibly damaged.

MR HORGAN: That’s right, that’s correct, yes.

DR CHAPMAN: Thank you. That’s all the questions I have.

MR GARDINER: I forgot to ask you, one of the areas that I focus on, NPS 5, which effects communities on the East Coast, Northland and around small scale propositions for isolated rural communities, do you have any of those --

MR HORGAN: No.

MR GARDINER: -- in the vastness of the South Island?

MR HORGAN: I think the smaller scale form of energy development in the South Island is still comparatively in its infancy and maybe somewhat behind where you’re up to.

MR GARDINER: But you don't have the sort of, (inaudible) anywhere or West Coast or any of those areas where you have communities, Māori communities particularly, who might be serviced more adequately by having their own little hydro system or -

MR HORGAN: I don't think so, no, I don't think we have faced that situation.

MR GARDINER: But the notion of small scale, Ngāi Tahu doesn't have a difficulty with that?

MR HORGAN: No, no. Once again as long as the effects are meaningfully avoided, remedied and mitigated.

MR GARDINER: Thank you.

MRS BAUMANN: But can I ask a question, this policy is currently drafted and intended to encourage those.

MR HORGAN: Yes.

MRS BAUMANN: Does that fall as something important for Ngāi Tahu?

MR HORGAN: We would support that policy that seeks to encourage that form of -

MRS BAUMANN: But you're not aware of any communities seeking that?

MR HORGAN: No, no I'm not.

CHAIR: Can I just check a few things before we break for morning tea. If you could help us with firstly, as you will appreciate Mr Horgan, to make this useful it's how it is then going to be translated into the local authority instruments really --

MR HORGAN: Yes, yes.

CHAIR: -- and if we could get your help with some of those matters. Policy 3, - well no, before I get into Policy 3, and Mr Higgins may have a view on this as well having been on the Working Party for the (inaudible), when it comes to wind, we have had some submissions that it would be helpful, rather than identifying in the district plans where the wind resources are, identifying those values which preclude wind farms, landscape, cultural, biodiversity, Section 6 matters. So there's some degree of certainty. Would you support that, rather than putting it on a local authority to identify those areas for wind farms?

MR HORGAN: Yes we would support that approach and to that end, Ngāi Tahu is engaged in a process of cultural mapping which involves the identification and description of areas that are of significant importance to Ngāi Tahu and the values associated with those and that will assist in terms of ear marking those no go zones.

CHAIR: That has been very helpful. Now with your own -

MRS BAUMANN: Is that material available?

MR HIGGINS: We're still working on that cultural mapping process. We're a fair way down the track with particular zones if you like.

MR HORGAN: Catchments.

MR HIGGINS: Catchments - we're taking each stage province by province basically. The cultural mapping perspective is something we've developed as a result of the tenure review process that we are currently working through in terms of particularly Canterbury and Otago. So some of that information may be available for consideration.

CHAIR: Yes can I just explore that in a moment. You've got your very useful plan that was developed years ago. Are you amending that to include your maps, or are you having another instrument altogether?

MS WILLETTS: Are you talking about tu whakatu kaupapa (ph), the Canterbury area?

CHAIR: Yes, yes.

MS WILLETTS: I'll just add a few things in. In terms of where the cultural mapping will sit, where as yet that hasn't been decided, however we are working with Environment Canterbury on sites of significance which are going to be loaded into Geos (ph).

We do work with the various local authorities in the Takiwa (ph). An example that I can think of from the past where we have identified areas where we don't want to see things happen and worked with the council, that was quite a few years ago now, we worked with Environment Canterbury on a marine example of that. And that was provided to them as part of their coastal plan mapping, so that they could identify cultural matters and a whole range of values from the community, so they could identify areas where they didn't want certain activities to take place.

CHAIR: And with Otago, I'm thinking of the proposals that have been announced or (inaudible), is that an area that you'll be looking at in respect of this?

MS WILLETTS: Most definitely we will be. We will be becoming very familiar with that.

CHAIR: Well Mr Horgan it would be really helpful if you could get something to us on that. Even if it's a statement as to where you are at. And what your philosophy is behind that. That would be really helpful. Finally if I could just ask about Policy 3. And again, if this policy were left unchanged, how, in your opinion, from your experience, a local authority would deal with it in a regional or district plan or policy statement or whatever, regional policy statement and the words that are exercising our minds are the words, "relative degree of reversibility."

MR HORGAN: Right.

CHAIR: Now, how would you see that then being translated into an inferior resource management instrument? And you may want to take some time to think about that, because both Policy 2 and Policy 3 in your submissions you have been very strong and it's been helpful, but you may then like to be able to think a bit further about how you would then implement those in the documents that you would be dealing with.

MR HORGAN: I would appreciate that opportunity of rather than give you a -

CHAIR: Yes. Thank you. If you could give that to Ms Beruldsen.

MR HORGAN: And you're concerned about the words "the relative degree of reversibility"?

CHAIR: Yes.

MR HORGAN: Okay.

CHAIR: Now finally, well I said finally before, but one more thing, and that is you have mentioned the discussions you had with Dr Chapman, we have had some submissions suggesting that where a National Policy Statement could be useful in terms of the Section 7, Section 6 matter is when one looks at Section 6 of the Resource Management Act, one is often dealing with inappropriate subdivisions and development and also in historic heritage which deals with Māori values as well, and the policy statement could be of some assistance in working out what's appropriate and what isn't appropriate.

MR HORGAN: Right.

CHAIR: And that balancing, would you accept that that would be another way of coming at it?

MR HORGAN: I would accept that, yes. I think that that would be a helpful way for the NPS to be directed.

CHAIR: Well thank you very much.

MRS BAUMANN: Sorry to go back, but you made a submission about Policy 1 and this whole business about overriding Section 6 and Section 5, I just suggest that you have a look at the way they handled that in the National Policy Statement on Electricity Transmission and look at the preamble, because they put it in the preamble.

MR HORGAN: Okay.

MRS BAUMANN: And whether that would satisfy you.

MR HORGAN: Okay, I will get back to you with some comments on that.

CHAIR: Yes. Well thank you very much for your submission and once again, it's been very interesting and one learns so much from these presentations. And could we just say that if there's anything else that comes to your minds as a result of discussions and the conversations we've had, please feed it into the system, we would be grateful.

MR HORGAN: Thank you very much for that opportunity.

CHAIR: And we adjourn now for a cup of tea.

MR HORGAN: Thank you. Great - thank you.

ADJOURNED [11.35 am]

RESUMED [11.50 am]

Audio file: dpm 0073

CHAIR: Well welcome Mr Gardiner and thank you very much for your submission, we've appreciated the work that's gone into it, and we were reflecting on the fact that we do want hear as much as we can about solar alternatives and so forth. So we look forward to hearing what you have to say about it.

MR A GARDINER: Thank you. Well just so as we're on the same page. I'm representing SEANZ, the Sustainable Electricity Association of New Zealand, and my name is Alister Gardiner. I'm a Board member of this association and I guess the reason I'm on the Board is to provide information, research, impart the knowledge about new and emerging technologies, primarily. Just a note for the records perhaps, for further communication, if anything does come through it should come through either myself or Brendan Winitana who is the Chair of the Board. We don't actually have a CEO now, due to some financial constraints. So we're currently operating in a fairly sort of battened down mode.

Just like to sort of introduce by the context of our submission, just give a little bit of background. SEANZ is an industry association, it represents the industry of stakeholders, primarily of the smaller scale renewable and distributed generation industry. And stakeholders include a range of manufacturers, importers, installers, designers, generator retailers, lines companies, the consultants, the developers, and researchers of course, and electricity consumers, so it's a very broad stakeholder group. Our objective is to build the capacity and capability of small scale renewable electricity generation industry in New Zealand specifically. Now, there's a couple of points that we just wanted to perhaps clarify, that the written

submission, it contained the views of Electric Board members. We didn't sort of attempt to get a consensus view of all SEANZ members, as you would appreciate there is a very broad stakeholder group, with people of interest in this area and it would have been difficult to achieve anything sort of useful, we feel, out of trying to still a whole range of different perspectives, so its representative the Board members consider themselves to be sort of knowledgeable practitioners, so that's a (inaudible) primarily on that behalf, so that might not have been clear in the original submission.

But I'd just like to reinforce the key points that we feel are relevant to our industry, our grouping. Basically overall, we certainly support the National Policy Statement promoting renewable electricity generation as an objective, and there are three sort of main points I guess to our submission that we wish to just reemphasise and take an questions on, obviously, if there's anything needs clarifying.

Really the key area is recognition of the potential for solar PV electric generation, in the fact that it does have some quite unique, sort of environmental attributes that need to be brought out, we feel, in any statement.

Secondly, that we certainly specifically support the inclusion of Policy 5 and we do have some, although they're hard to perhaps verbalise or quantify, but concerns about the confined effects of the overall proposals. So, sort of on the environmental diversity I guess, to try to identify a broad concept.

Okay now just really emphasising those particular points. From the point of view of solar PV electricity generation, it's obvious that not all renewable electricity generation technologies are the same, in relation to

their environmental effects. And we think that the extremely low environmental impact of solar PV, in particular needs to be recognised and sort of make the point that - my understanding is that it's not an issue of cost here it's an issue of how it fits into the environment, so irrespective of cost. Now we feel that we can sort of expand of this but that just because it's at the moment a low use technology in New Zealand, it shouldn't automatically disqualify it from any relevant encouragement or promotion. And there's a few points here to emphasise that.

The global PV market is growing at over 40 percent per annum, I mean, why isn't it growing in New Zealand? Much of this growth is now rig connected systems, which are relevant to New Zealand, as we are practically fully reticulated with electricity network infrastructure. New Zealand has a very good solar resource, on a world scale, certainly better than Germany, Switzerland, parts of the US, Canada, etc, and Japan, and yet we're not utilising that resource. We feel that the lack of recognition, and this was a point that perhaps wasn't brought out sufficiently in our submission, lack of recognition or the promotion of small scale technologies, and PV in particular, really represents eventually a disadvantage. It puts New Zealand's potential users or customers to a disadvantage in that it won't get the same profile, the same level of consideration as some of the other larger scale technologies. And this is sort of at a disadvantage internationally, because these technologies are being promoted internationally. And so we would just like to make the point that under a National Policy Statement, PV generation is given a sufficiently high profile and due recognition as an extremely environmentally friendly form of renewable generation. And I guess that broadly these points are relevant to all the proposed policies. And I'd just sort of make the point that there are 1.8 million dwellings or thereabouts in New Zealand and a lot of other roofs available, for every thousand PV systems, that's one very large or two perhaps very large wind turbines that

aren't needed and there's many thousands of wind turbines that potentially could be avoided, and the environ modification associated with these PV systems would be minimal in terms of natural amenities.

So just on that point, we certainly support Policy 5 in that respect. But the point I'd make is that nowhere in the discussion document was there any mention of the PV and the relevance the protocol takes, and we sort of find that hard to understand when there is talk of wave energy technologies or marine technologies, that aren't anywhere near as far advanced as photovoltaic systems.

Now the point we'd like to make here is that distributed generation, and this concept is a very broad and very diverse and that there are sort of unique or attributes that can be applied I guess to some types of distributed generation type technologies but not others, and some scales of technology but not others. And lumping sort of all these into Policy 5 does sort of perhaps not bring that point out. So we'd just like to make that point, that particular micro scale or the small scale distributed generation has these unique set of characteristics, and certainly environmentally friendly characteristics and also supportive of the network, that are not maybe so evident in larger scale distributed generation technologies. Obviously very low environmental impact on the unmodified landscape a high reversibility, if that's a desired policy. Reduced transmission and distribution, and I'd say distribution losses as well which might not be evident in larger scale distributed generation, and the potential to a firm of a larger scale sort of transmission infrastructure.

I think a key feature or sort of we as the industry feel, is around the opportunity for consumer choice. If a consumer wishes to have 100 percent renewable generation from photovoltaic's on their roof, then they can achieve it, whereas a grid mix alternative, it doesn't necessarily

give them that. So there is an element of competition and customer choice that would be allowed by supporting this particular type of technology, and we'd argue that no other scale of generation provides all these benefits. So we think the unique combined benefits of micro scale generation, in particular photovoltaic's, needs to be perhaps differentiated under Policy 5, since these are not available in combination from other renewable generation.

[12.00 pm]

And just finally, just a comment around the combined effects of the proposed policies. We still have a concern that policies which are, certainly Policies 1 and 2, that encourage or support renewable electricity generation, may tip the balance. And this is talked about in the discussion document, that against the perhaps reservation of remaining areas of natural and physical uniqueness not necessarily beauty or outstanding aspects, but sitting listening to the tail end of the previous presentation, this point around the Waitaki, it has been modified so people might argue that it's no longer of value but in reality it's still a braided river system, and do we want to (inaudible) every diverse feature we've got, including ones that aren't perhaps of such a significant feature. So I guess it's that national diversity is the point we're trying to bring out, and that's more on a altruistic view I think, it's got no particular significance to SEANZ I guess, but just that from a public viewpoint. So the only point we would make about - we're not sure how that this might be reflected or recognised in the statement, but that maybe if Policy 3 was retained and there could be some counterbalance based on that issue of reversibility, which in some form we also support, but I haven't addressed that yet.

With that we'd like to thank the Board for listening to our final submission and ask if there are any questions.

CHAIR: Thank you Mr Gardiner.

DR CHAPMAN: Thank you Alister. Just turning to your remarks about the global PV market. It's helpful to see that, those facts and figures. Specifically you say, "We urge that under an NPS, PV generation is given a high profile, due recognition, as the (inaudible) renewable." So what sort of wording would you like to see, to recognise and promote solar PV?

MR A GARDINER: Well I think it's got to be around the multiplicity of or the combination of, benefits that this technology brings both from the point of view of the electricity infrastructure and also from the point of view of minimalising sort of modifications to the environment. I mean, I could maybe come up with some bullet points if that would be helpful, sort of offline.

DR CHAPMAN: It would be helpful, yes, if you could come back to us perhaps with some simplistic wording on that. Can I also just raise the question of where you would like those words to be inserted in the NPS? Whether for example you would like them to be noted in the Preamble, so by way of context setting or whether you think it's something to be injected into, say Policy 5, which focuses on small scale and community scale generation.

MR A GARDINER: My feeling at the moment, but I'd have to take this back our Board, is that it would be somewhere in Policy 5 and I think it's important to differentiate the different types. Distributed generation is a very complex topic and misinterpreted because of the fact of its complexity and people tend to lump all these small scale technologies in the one boat. And while they think of a wind farm as being distributed generation and think PV's the same. They think it's PV farm, so I think it should really be

in that somehow and those variations or differentiations, should be introduced under Policy 5, but we'll have a look at that.

DR CHAPMAN: Okay. And in doing that, could you have regards to the need to keep the NPS shorter if possible, concise.

MR A GARDINER: Yes

DR CHAPMAN: In your comment about the attribute of widespread individual consumer access to a fully renewable alternative, would it be true to say that customers have that choice already by electing to buy their power from a generator that commits to generating with renewables?

MR A GARDINER: Yeah, I guess that's a fair comment, there's just a - I mean there have been incidences apparently of that not actually being complied with from time to time, so there's not that guarantee that you're actually using your own renewable energy or you use energy that comes off your roof, off your PV system. And it's a matter of how renewable is renewable? For instance, if somebody was using a - or how clean is renewable? If someone was using or generating power from a say geothermal station, and they're emitting quite substantial amounts of CO₂, they could still call that renewable, but it would be not entirely - for somebody who was particularly keen to have low emissions, that would not be very satisfactory. So I think there's a major element or a substantial element of customer choice, of knowing just exactly where your power is coming from. There's also a competitive choice, which is not yet there or available around the use of small scale technology, that is not supply side, generated if you like, that is sort of demand side. I mean, it's like going and buying a heat pump from a warehouse or something. If you can buy your own generation system, then it's completely owned and operated locally or within the community. Larger scale technologies don't

have that attribute. So there's a customer choice issue, it's not just a matter of green energy, although that's a bonus.

DR CHAPMAN: Sorry, just to clarify that, are you saying that there's attributes of solar PV that relate to reducing demand on the grid that may appeal to people, may be worth encouraging as well, because of that demand side effect. Is that what you're saying there?

MR A GARDINER: Yes, yes, exactly. I mean, people might chose to put in or collect some of the, I guess the free energy, for want of a better word, that falls on their roof as a deliberate choice to stretching the grid.

DR CHAPMAN: Isn't one of the attributes of this sort of micro generation that it's very costly per kilowatt hour?

MR A GARDINER: Yes

DR CHAPMAN: I mean, should that be recognised in Policy 5 as well or -

MR A GARDINER: Well that's maybe for a - I mean I'm not sure what the objective of the objective is, but my view is, why should it? I mean, is it the role of - a statement on supporting renewable energy technology is to arbitrarily say one is more expensive than the other. I mean, I don't think it should be and I think that's the reason it's been left off, and I think that's wrong. I mean, our industry feels that, that's 100 percent wrong, that that shouldn't be the case at all. That the policy statement should promote with all of the appropriate technologies for New Zealand irrespective of the cost. It's up to the industry and the competitive market to decide how to deal with that plus, maybe government policy settings that encourage as a separate issue, encourage or discourage particular types. I don't think it's the role of the NPS to sort of say, "Well it's too expensive so we won't

promote.” I mean there’s quite a section in there about marine energy and we all know that’s probably even more expensive at the moment.

[12.10 pm]

DR CHAPMAN: Leaving aside the question of whether cost should be matter for an NPS, and I understand your view on that. Can you give us a sense of the cost trajectory for distributed solar off the top of your head? I know, looking here at the global supply side -

MR A GARDINER: Well globally - it’s difficult to sort of translate that to New Zealand, but globally there are many countries that expect solar or rooftop PV in the scale that they’re likely to be introducing it as becoming grid competitive by 2015. That’s the target that sort of was mooted perhaps 10 years ago. Now most of these targets get pushed out, but in this case, if anything, it’s being brought in closer because of the explosive growth which is starting to cool technology costs down. So certainly 2012 to 2015. Japan claims that in some situations it’s competitive now. They removed most of their subsidies for installation of rooftop and photovoltaic systems, and they’ve still got a substantial market there. Certainly in other parts of the world, the market update subsidies that have been applied, other than feed-in tariffs or whatever are still very relevant to the growth of those particular markets. I would put a figure certainly by 2015. Now whether that will apply to New Zealand depends entirely on the cost of our grid supply. I mean grid power use is the key thing, all I can say is that grid supply cost has, what, doubled in 10 years, whether they continue to do that or not, this is to the residential consumer, whether they continue on that pathway is anybody’s guess, I guess. But they would probably have to double again before PV becomes a competitive technology in New Zealand without some sort of market support around the attributes that PV is not - that are not recognised or not quantified or don’t get

returned to the purchaser or owner at this stage. And there are a number of attributes, if you want.

MRS BAUMANN: Sorry to interrupt, but can you just quantify the lines cost, you said currently about a double, what's the percentage either numerical or percentage, that the lines cost play in retail pricing?

MR A GARDINER: No, well sorry, I meant the retail price as a whole would have to double.

MRS BAUMANN: Retail price as a whole, energy and light?

MR A GARDINER: Yeah, I mean, in certain parts of New Zealand, the sort of retail cost for kilowatt hours in around about 25 cents. I'm saying that on the projection of PV system price reductions that we might be getting towards 20, 50 cents a kilowatt hour by say 2015, so we have to - the network price of electricity would have to sort of double or maybe a bit more than double, before that becomes competitive. Now, one of the points I'd make there of course is that in - we of course see PV as particularly suitable for urban or any sort of residential type applications, but there is a subsidy on the line, if you like, in rural areas, for network power and if that was taken off, anecdotally lines companies will say or they might even admit it openly that they should be charging up to 5 times their lines charge. So if you looked at that as a competitive cost, say the lines charge is, I don't know, 10 cents or something, they could be charging 50 cents lines cost already, so there's a subsidy, if you like, on the supply to rural customers that means PV's not competitive in those areas at the moment. So there are always - it's a very complex issue and there are always distortions, and I'm not suggesting that, that subsidy should be removed, but maybe alternatives, and this is part of maybe that other - looking at the issue of cost of remote power, that if that subsidy or

regulation remains, that the alternative should be given a similar sort of support for those stand alone power in those regions, but that's just a perhaps a diversion somewhat.

MRS BAUMANN: Sorry to interrupt, thank you.

DR CHAPMAN: Now, those points are exactly the sort of things I was trying to explore, so that's very helpful, thank you. Have you seen - just to further address this a little bit more. Have you seen those projections of the decline in PV prices, a function of economies of scale in production? I don't know if you're aware of those sort of estimates, but I can show you some, certainly. But it's a more general proposition really, that there's an experience curve or a learning curve in (inaudible) down in price in this sort of technology. Do you really see it continuing to fall, by say as much as 50 percent over 10 years?

MR A GARDINER: I do. But I mean, it's sort of one of those things that you can only project. It's like projecting the oil price. I mean there are other factors come into it. But as - in my researcher role I have covered those particular, like the PV in particular, because I guess I've worked with it for a long time. And it has, it's still sticking or keeping to a technology learning ratio of 0.8 or 80 percent, in other words, there'll be doubling of installation or doubling of production, that the cost of photovoltaic panels reduces to about 80 percent of what it was prior to that doubling, so that's been going on for a good decade or more, and several decades of capacity, (inaudible) capacity increase, so there's no hard and fast rule, it's just when that'll start flattening out, but at the moment it's a tiny volume of production, of capacity relative to other energy technologies, so there's nothing to suggest that technology learning won't continue for some orders of magnitude to come. And those are the sort of projections that people use to make these predictions about - it's simply a matter of how

much capacity is in by 2015, in my view. Not what the price will drop to. If there's sufficient volume of installed capacity, then cumulative installed capacity by 2015, the price will continue on that pathway for some time to come.

DR CHAPMAN: I wonder if you could furnish us your latest data on that just to - perhaps I can explain why I think it's important, not because we're fixing on this particular technology but because I think it's a technology that exhibits a pretty clear downward curve of learning, but also has the capacity, once it gets to a certain point, to transform the nature of micro generation and the availability of power, particularly in urban areas, not just remote areas but at a certain point it may obviate the need for quite major generation capacity. When that point is reached is a very interesting question, so we'd be interested to know what we can - well to see what you can offer us on that.

MR A GARDINER: All right, let me work something out.

[12.20 pm]

MRS BAUMANN: I only want to explore one further, that's in respect of how these micro systems, if they are not stand alone, if we take the chance of that, how do you deal with the backup for the occasions when they're unable to generate, is it through batteries or is it through grid power?

MR A GARDINER: Yes, that's a very astute question, and it's one that - it is central to the interaction or the interface with the grid, and the grid supply. You have to have some sort of backup or storage or stand by generation. There's a certain - well there are two broad pathways or methodologies, one is having to supply back up generation either locally, like, close to the generation or deferral of demand, in other words pricing signals that

encourage people to reduce demand when PV's not generating. Those two approaches are obviously both feasible and relevant and it probably should be a combination of both, now if -

MRS BAUMANN: Quite a suite then of techniques?

MR A GARDINER: Yeah, a suite of techniques. And my view on batteries is that they are not cost effective as yet but as we all know about the enthusiasm for batteries for liquid vehicles and so on, that will spin off. I mean if they succeed in getting cost effective batteries for liquid vehicles that will certainly spin off into the stationary application. But I think that all comes down to, sort of, the appropriate electricity pricing signals from the network, and it's one of the issues. I mean if somebody has a PV system and it's not generating, I see no problem with, I wouldn't say penalising them, but giving them an incentive to reduce their demand accordingly.

MRS BAUMANN: It's very smart metering or something like that.

MR A GARDINER: Yeah exactly. In other words put them or everybody's price up, so yeah exactly, through smart metering. Now the point I'd make about smart metering, that the supply industry does not see the importance of, and that is around if they have a right to control your demand pricing then there should be a similar parallel right for a grid supplier, who's got a small PV system on their roof, to also be offered adequate pricing signals to reflect that as well. So the incentive is both ways, so that just adds to the ability to control demand and supply. But yes there's no one answer to that, it might be that ultimately distributed battery banks will be sort of installed on the supply site to compensate for that. There's a lot of research been done on this overseas. That's the approach Japan is taking. Japan are already developing and installing distributed storage packs and they literally are battery banks in their

substations, and that's the approach they are doing. The Americans see it somewhat differently, they want to just stick in big diesel or I say diesel gensets in a distributed fashion to offset it, and personally, that's a very cost effective solution and I think that's the solution I think would be appropriate. But unless this problem starts occurring, it's a bit like wind generation, people are now projecting - we've got these same sorts of issues with wind generation, and we do. Well we will have, we haven't got them yet, but when they become an issue the most cost effective solution will be developed. So I mean, it's an issue, it's a fact that has to be addressed but I don't see it as an immediate issue.

MRS BAUMANN: I don't know how we achieve this either. The only other sort of piece of information I don't feel I have is, and you may not be able to answer this, is the degree of penetration of these micro approaches, if I may call it that, PV, micro hydro, small scale wind. Have you got any information or is it just too speculative?

MR A GARDINER: One of the things that our (inaudible) has tried to address and it had been extremely difficult. We tried to put together a scheme for members to provide this information in a very, very rigid, strict, confidential, approach. It really felt, I'm sorry I shouldn't say this either but we had problems, it doesn't matter how safe that information is, the problem with commercial convincibility.

MRS BAUMANN: Thank you. Yes, we can get solar hot water through the incentive schemes, but we're struggling -

MR A GARDINER: Yeah, and that would be a way to achieve it of course, through incentive schemes. And there may be a good reason for incentive schemes to be quite honest with you.

GERALINDE BAUMANN: Thank you.

MR GARDINER: Alister, what's the cost of one of these units to stick on your roof? The PV units, is there a unit cost?

MR A GARDINER: Yeah, there is. In New Zealand the ballpark cost is still around about, I mean for a complete system, is around about \$10 a watt or \$10,000 a kilowatt. That's sort of inclusive as a reasonable sized system, so that would include the converter technology as well. And bearing in mind that the duty or capacity factor is pretty low, it's around sort of 15 to or if you're luck maybe 20 percent, if you're in Northland or Auckland, so it's or Nelson or somewhere. So it's a pretty expensive technology to recover, the cost. The rate of return is pretty, it is very low, in fact at the moment you'd never pay it off in the grid electricity in your lifetime. So there has to be an altruistic sort of reason for doing it. And that's where some of these other values that we keep pointing out. If they were promoted, it's a bit like solar hot water systems, I mean in a there's still a lot of doubt about just how, how much value there is, because of the cost of installation of small scale and so on, in New Zealand. And this is like all these technologies, they cost - it's only when you scale up into a substantial industry, and that's what our association needs to/wants to do, that economies of scale start dragging a bit of value to its customers.

MR GARDINER: What about a sun map of New Zealand. Do you have that as part of your studies of the association that indicates that these kinds of micro (inaudible) using solar are more effective in the Northland or perhaps Whakatane?

MR A GARDINER: Yeah, there certainly are, I mean in NIWA, there's organisations that provide that solo and that's one of the benefits of this technology is it's pretty obvious from any sort of information around the

climate, where they're best suited. It's not perhaps like wind where you've got to do quite a lot of localised evaluations, before you can establish whether or not it's a good site for wind, so it's not so localised. But certainly yes there are, I mean that information is available and I wouldn't be surprised if there's not something even on the EECA website, that they have a bit of information about these technologies. But you can certainly sort of (inaudible) reasonably readily available. I mean I know offhand which are the websites.

MR GARDINER: Yeah, thank you very much.

CHAIR: If I could just explore with you some of the advantages of the technology, in terms of development policies in respect to renewable electricity. We have heard from some areas where they, the districts, the District Councils or City Councils, do not have any other opportunities when it coming to dealing with promoting renewable electricity, except solar, for instance North Shore. And so in an urban setting basically, is it fair to say that solar is one of the few technologies in those areas, where an individual could actually promote renewable electricity, rather than relying on the generating company or something like that. So that's an advantage of solar, individual's can do it.

MR A GARDINER: Yes, I think that is a point that we tried to bring out in our submission this morning, that individual's can promote and can implement these technologies.

CHAIR: Yes, they can get involved in implementing the policy.

MR A GARDINER: It's the only one that's universally available for individuals, the only one, as far as I can think, off the top of my head.

CHAIR: The only other one I can think of is possible stand alone small windmills, on a but in an urban setting that may be more difficult.

MR A GARDINER: In an urban setting, I mean that was a movement that came out of the UK, there was a lot of PR and hype and publicity about rooftop wind turbines. I think there's been sufficient testing done to prove that they're not likely to be very cost effective in the urban environment, as well as having the visual issues associated with placing blades and things.

[12.30 pm]

CHAIR: And the solar uptake or the PV uptake, does that correlate pretty well with growth. I'm thinking of new subdivisions, where you've got your new house, where you've got the opportunity or a new building, rather than facing the cost retrofitting, which seems to still be a quite costly process, is that?

MR A GARDINER: Yes, primarily the best market, the most effective market would be in new dwellings. But unfortunately of course, that limits the rate of growth to the rate of building, so that's a pretty small rate. But certainly retrofitting has its problems, in terms of maybe a roof orientation, I mean if it's a flat panel, they have to be facing pretty much due North and they have to be at, well at this latitude 43 degrees in Auckland, may be 35 or something. So you don't do that and you're not going to optimise the output, so that does limit the sort of uptake in existing dwellings, and there's the issue of retrofitting and running wires and cables, but I would make the point that it's far easier to retrofit a PV system, than typically a solar hot water system, far easier. So, while the retrofit cost would probably be a little bit higher, there are some problems with the sort of, maybe the stock that you can apply it to, it is a far better opportunity than maybe, solar hot water, in terms of retrofit. So there's a big market, a big

retrofit market, no question about that. But there are limitations with how much obviously it could penetrate. And certainly from a point of view of a value proposition, I would think that the new housing market is important, very important sort of initial market. And also people have - it's hidden, maybe the cost. How you might do that, whether you have incentives to sort of encourage people to invest like industry loans or something, I don't know. But certainly that would be the most attractive initial target market in my view.

CHAIR: Yes. So when you've plotted trends here, growth as far as the uptake of PV is concerned, have you plotted that against the growth in the building market, in other words, once we get more houses you've seen a rapid increase?

MR A GARDINER: No there's not, because there's no incentive, there's no publicity, there's no drive, and I mean if just simply go and look at the way architects or the way housing companies design buildings, I mean, they only push towards a renewable sort of pathway if it's written or (inaudible) or legislated. I mean how much insulation do you put in a building, they won't put any more in than is necessary because it adds to the capital costs. So or if you qualify the regulation and I think the same thing would sort of apply. Unless you've had a customer absolutely insistent, "I want a PV system in my house, and I'm prepared to pay the extra \$10 a watt for it," there's no incentive for it to happen, so it just doesn't happen. And it's negligible.

CHAIR: So where, from policy forcing perspective to try and promote renewable electricity, assistance could be given where District Councils and local authorities in their planning instruments don't provide any barriers when it comes to that. Do you see that as being - that that would be of assistance to Policy 5?

MR A GARDINER: I think that definitely is a positive move, that certainly to eliminate any barriers that might be in place. And those are things like - I mean one of the issues with retrofit of course, is that you have to get a building permit and there may be a resource consent as well, so those sorts of things in retrofits. And I'm not sure how - I mean if it's part of the original building or the new house building permit, I don't think there would be too many barriers, but it would be certainly worth reinforcing that there shouldn't be.

CHAIR: Yes, well particularly if we're dealing with the period through to 2025, so it's a reasonable planning period.

MR A GARDINER: It is indeed.

CHAIR: Well thank you Mr Gardiner, that's been very helpful. And the additional homework you've been given, if you could pass that on to Ms Beruldsen, we'd appreciate that.

MR A GARDINER: I will indeed. Thanks very much.

CHAIR: Now, Mr Willis is it?

MR WILLIS: Yes indeed.

CHAIR: Mr Willis, we're running a little bit late. But we've been looking forward with bated breath for your arrival, for your return. Further information that you've been good enough to dig out.

MR WILLIS: Well, thank you for inviting us back and I've been looking forward to this debate, discussion, opportunity as well. So, just in terms of apologies first, Councillor Sage sends her apologies she's unable to attend this today. She's up to her possibly knees rather than neck in minimum flow matters for a number of rivers within Canterbury. So, be nice if she was up to her neck as such but up to her knees in minimum flow matters so, she's unable to attend. So, she sends her apologies.

CHAIR: Could you also thank her for her contribution to this.

MR WILLIS: I will, I'll pass that on. So, just in terms of context and I think Josie handed out, thank you. So, just to remind you we did present on the 12th of May and the Board had some further questions for us. And I've listed the questions on the front page and we've sort to address each of those questions in the document.

Again, just to give you a roadmap of what you've got in front of you. First up, we've got responses to the questions and we've got a summary box for each of those responses. After that, in Appendix 1 of the document we have page 10, is the draft energy chapter from the revised or the Canterbury Regional Policy Statement. Appendix 2 is on page 19 but that is a policy referred to in the energy chapter it's not within the energy chapter but it's within the revised document. And Appendix 3, which is on

page 20, was the final appendix and that is the issues (inaudible) paper which we did some background thinking on how we were going to review and draft the energy chapter for the RPS in the first place. So, you've been given that as well for your information.

DR CHAPMAN: Thank you.

MR WILLIS: In terms of the first pass that you asked us to go away and think about. It was looking at - and to remind you Environment Canterbury had some concerns over how Section 7 versus Section 6 matters are treated under the Act. And we were asked to go and look at the NPS for electricity transmission I believe.

We think in summary, that it suffers from the same issue and in fact, I think it's possibly even worse than the wording for the renewable electricity generation. It specifically uses the words from Section 6 'recognise and provide for'. So for instance, Policies 1 and 2, I'm reading from page 2, point 5, "Policies 1 and 2 of the National Policy Statement on electricity transmission state that achieving the purpose of the Act decision makers must and it's recognise and provide for."

So, I guess maybe I don't want to come across as being too pedantic but for us this decision issue where an NPS would appear to elevate a Section 7 matter over a Section 6 matter. And then thinking about the consequences of how that would be given effect to in a Regional Policy Statement, Regional Plans and then District Plans and also, the discussion or potential conflict that would arise at the hearing such as the Mount Cass wind farm. How that would be considered by the commission and in the Courts if they're obviously starting with Section - with the Act and applying that in the first instance. So, we think it suffers from the same issue in fact.

In terms of Policy 1 and 2 we think, Policy 10 is actually quite appropriate. But that's a specific policy to the transmission NPS and the wording in there we think is suitable.

On Page 4, we have sought to consider a little bit further and work out how maybe that we could get some changes from the NPS on transmission and apply that to the renewable electricity generation. And we were thinking, there's two ways of doing it, is just replace the words 'recognise and provide for' with 'have regards to', which is just the hierarchical thing. But we thought the other way of doing it would be to actually have the policy meet the objective.

So, rather than have the policy meet Section 5 of the Act and we're saying the policy (inaudible) Section 7 to Section 6 matter in terms of recognising and providing for. The policy itself could recognise and provide for but it just needs to meet the objective and then it's the objective that meets the Section 5 and meets the Act. So, potentially an intermediary step would allow us to get around this sort of, it tying our hands behind our back issue with that (inaudible).

[12.40 pm]

CHAIR: Now, just if you pause there 'cos that's very helpful. Did you have any difficulty with that objective, the penultimate line where the 90 percent's referred to and the 2025, in terms of implementing that in your instruments?

MR WILLIS: Mr Chairman, yes we did. In our original submission we were quite concerned with that objective. Our view was that an NPS's purpose is to achieve the purpose of the Act. And that particular objective, it made a

rather large assumption or leap that 90 percent renewable by 2025 was the same thing as Section 5, the same management. We didn't think that it was necessarily the same thing. So we sought that projected to be reviewed in the original submission.

With your approval I'll move onto the next point, which is on page 5, small and community scale. And I think there was discussion from the gentleman before me on this. We were requested to provide a bit more background on our comments on this and I'll read from point 18, on page 5. "We submitted the definition of small and community scale should not be characterised by generation capacity limit. Our reasoning is that the effects of different types of renewable generation could vary quite significantly."

So, what we're saying is it's not necessarily the - well you could say draw a line in the sand and say, "4 megawatts or below is small and community scale." What we're saying is there's quite a disparity between the actual adverse effects of a 3.9 megawatt run-of-river versus a 3.9 megawatt turbine system. And also, we think that the way the Act works as well considers the assessment of effects and so rather than a cut off line of 4 megawatts.

And I think that, I like the approach that the NPS has taken in trying to set a limit and a line in the sand providing a figure. In this instance, it maybe not be appropriate and so - for the reasons of the first bullet point. Second bullet point is that technology is always improving. It may well be that we're able to provide 5, 6, 7 megawatt schemes with less effect than a 4 megawatt scheme in the future. And we think that - yeah in the final bullet point there under 18, is the (inaudible) effects base and we think that it may all be on a case by case, what can the particular environment absorb in terms of that small and community scale.

We then also submitted an alternate definition and this was in the original submission to you. So, we described it as electricity generation from a renewable source for the purposes of supplying of electricity to a particular site or an immediate community and via local transmission lines and where adverse effects are less than minor. And then in this additional wording that's Clause 20, 22 and 23 we've defined those.

MRS BAUMANN: Can I just ask you a question, would you, however want that upper bounded? Could get quite large.

MR WILLIS: That's a good point. It could well be.

MRS BAUMANN: Up to say, 10.

MR WILLIS: That may well be a way forward, yes I agree. Again, it passes the problem on to local authorities to determine the nature of the scale of effects that are acceptable.

MRS BAUMANN: Yeah but we're opening (inaudible) without any upper bound to go on.

MR WILLIS: It could be anticipated that its 4 megawatts however, it may well be that other schemes in and around may be suitable (inaudible) adverse effects. I'm sure it could be worded to allow you to do that.

MRS BAUMANN: Thank you.

CHAIR: We also had a submission, just following on, that you could get a situation where you've got a whole series of 10 megawatt facilities and

you have accumulative effects. They have a different activity status you've got to get (inaudible) base line eventually if this is developed.

MR WILLIS: Yes, potentially we can get around that if we use the notion that it has to be an immediate community and via local transmission lines. I take your point that you could have a 4 megawatt, a 4 megawatt, a 4 megawatt all supplying the local community by local transmission lines. But the intention would be that it needs to be used a 100 percent within the community rather than that supplied back to the national grid. That's within that point 22, we specifically used, "Via local transmission lines we can consider limiting the route that the electricity can be distributed by will reinforce the community scale intent. If distribution is not via the national grid by default then benefit is 100 percent within the community where the effects are felt." So, we've (inaudible) in that one.

Again, whether that then limits the ability of people to - having said that if I was to build a small community scale system I'd be quite keen to be able to use that back into the national grid when I was using it. So, I acknowledge that we're potentially creating problems in time to solve. This is the nature of the issue that we deal with unfortunately.

CHAIR: Yes, you would have quite a few remote high country properties in your area, wouldn't you?

MR WILLIS: Yes. And also then at 23 we look at that notion of where the activity effects are less than minor. And we think it provides communities with the ability to define what they feel a significant effects on case by case basis rather than simply 4 megawatts. There's arguments for and against but I mean, this is another view which we would be pleased if you would consider.

CHAIR: Yes, thank you and does that also mean that anything that didn't come up in this is non-compliable? We've had a submission this morning that I have some difficulty with understanding. And that is the effects under Section 5.2(c) mean that you must only deal with - all effects have to be minor, and that's not my understanding. But the law is basically that it's only the non-complying activity status where you've got that threshold of minor. After that it's a sustainable management issue in terms of discretion activities.

MR WILLIS: I believe you could write into this NPS how you wanted activities that were over that threshold to be treated.

CHAIR: Yes, thank you.

MR WILLIS: The next question you asked of us was one I find a lot more interesting. Which was, was it possible to map no-go areas? And it is something that we have - and I think I touched on this previously and I jumped up to help Councillor Sage out. But we have specifically considered this as part of the Regional Policy Statement review in relation to the electricity transmission, national transmission corridors and also generation.

We've got some commentary on here and I'll read from the box for you. We don't consider that mapping is feasible within the Regional Policy Statements. First and foremost, it's contrary to the effects based assessment the RMA provides for. I mean, that is a philosophical issue, having said that are very real benefits to mapping it out in terms of certainty. So, we can argue that one.

I think one of the key things for us though is that second bullet point and third bullet point. The cost associated with robustly identifying no-go

areas in an RPS. So, if you think of the amount of information that's been spent on Mount Cass for instance and will be spent on further applications for wind farms will be significant. Would we have to provide that level of justification or robustness upfront when we did the RPS for the whole of Canterbury? Which would be extremely expensive or not.

And then the third bullet point is, well once we've done that we'd have to defend that in Court. But also we'd have to defend what we've included in the no-go areas but also what we haven't included in the no-go areas. And from my perspective we could do that, the costs are prohibitive and I'm not sure who - it would certainly be of use to electricity companies, it may well be of use to communities in terms of certainty as well. Having said that, my personal view is that it would be political suicide for a Regional Council to undertake that activity, in terms of expensive and in terms of the actual issues of getting that through, in terms of patch protection of local District Councils, local communities, who is doing the work and for what purpose. I think they're very real issues in and around that.

CHAIR: So you would leave it to the District Councils to map no-go areas for wind farms on landscape issues for instance?

MR WILLIS: What we have found Mr Chairman and if you can look at page 7, paragraph 28, and whether this is a way forward. What we have sought and I think it's unusual with the Regional Policy Statements in New Zealand. What we've sought is to actually try and achieve some consistency in the management of landscape within Canterbury.

And we have actually undertaken to map outstanding landscapes within Canterbury. We think that we can do that piece of work in terms of mapping it and mapping it for the values. It doesn't necessarily mean that

an area that is outstanding cannot then have a wind farm in it. What it means is that this area is outstanding in terms of geomorphic features or cultural values. But a wind farm maybe entirely suitable but it's still outstanding.

[12.50 pm]

I guess you would argue that generally a wind farm wouldn't be suitable in those areas because that is probably one of the key values of why it's outstanding in the first place. Well, what it does is we think we're on sort of stronger ground by mapping out the landscapes that are outstanding, determining the values and then letting District Councils come in under that and determine more of a fine grained assessment within that area and also the management regime and also what's appropriate or inappropriate. So, we'll provide the values and they can come in and say, "Okay well, the values might well be openness, it may well be tussock brown grassland." If the values was tussock brown grassland, a wind farm doesn't necessarily compromise it. If the value was openness, naturalness values, unencumbered ridgelines a wind farm might well then compromise that.

So, that is the approach that we've taken as a region and we are expecting some push back from the District Councils on this and so we'll see whether get through this one.

MRS BAUMANN: Push back in a sense that they don't want to take up the challenge you're giving them?

MR WILLIS: Push back that I think there's a bit of patch protection between a district and the region in terms of who does what. And they'll be suggesting to us that determining what is outstanding and what's

appropriate or not in a district is up to the District Council to do. And depending on what district you visit that push back is sometimes prominent than others. And may well be the smaller the district, in my view and this is a personal view, and what I've noticed and experience, the smaller the district the more development orientated it is rather than the more intent on seeking environmental protection. And the smaller district or the more rural the district is the more likely they are to want to make these decisions at their own council level.

CHAIR: Yes, we are getting fairly consistent submissions now that rather than expect the local authority to identify areas with, say for example, wind farms should be promoted, it's better to identify these other values then leave it to the developer to decide when they see these values whether it's worth proceeding or not. But at least there's an indication. The other thing is we've heard evidence this morning, submissions from Ngāi Tahu who said that, that sort of mapping is taking place as far as cultural impacts are concerned. So that would again, tie in with what you're talking about on a regional basis.

MR WILLIS: Mr Chairman, the middle of point 27 I think actually, now that I'm looking at it. "With such a policy in place a developer would be able to identify if there were potentially going to adversely affect those values and seek alternatives to avoid such adverse effects." So, I guess that is the sort of the approach that we're taking. We believe that to robustly define this area as not suitable for wind farms would be quite expensive and fraught with difficulty and the Regional Council would be fighting a lot of people for what outcome? Certainty protection of landscape and certainty in terms of generation, but is that more TrustPower's fight who have deeper pockets than the Regional Council.

CHAIR: Does that mean that one map would provide more certainty?

MR WILLIS: Yes.

CHAIR: And secondly, it would be of real assistance in working out what may be appropriate or inappropriate in Section 6 terms, for development.

MR WILLIS: Yes, but the approach that we've taken in mapping the areas are on the basis of their values and then case by case assessment after that with local community input we think is a more robust approach for us as Regional Council, in the Regional Policy Statement, which was the question we were asked.

CHAIR: But they're Section 6 values under the Resource Management Act.

MR WILLIS: Yes, we will be considering with that, yes correct. It is principally Section 6.

DR CHAPMAN: Would it be limited to Section 6 values or might it also take into account some other values?

MR WILLIS: That's a very good question. Rightly or wrongly in the landscape work that we've done, we have limited it to Section 6. We thought we were on safer ground with the wording on Section 6 'outstanding natural features and landscapes'. There is a lot of arguments within the landscape profession and also interest groups around amenity landscapes, around cultural heritage landscapes and it would have taken our entire PT budget I believe, Public Transport budget to that work as well.

So, we thought well that's probably again, something that can be left to District Councils. But what we will probably do is provide some criteria in

the Regional Policy Statement around assessing cultural heritage landscapes. But not actually do that work ourselves, rightly or wrongly.

CHAIR: Mr Willis, while we're on a roll here, can I just ask you, and it will be in appendices and we'll work through those perhaps in our own time. But the way you deal with your mapping or the classification of landscape, do you also deal with Section 6(c) matters, in other words vegetation and significant habitat and things? Or do you do it purely in landscape terms?

MR WILLIS: Another good question Mr Chairman. I think there's a very real crossover in that landscapes are defined or influenced by the vegetation. And an outstanding landscape maybe, the value is because of the vegetation. We've sort in this exercise to limit it principally more to the geomorphological, down the line type, soil types which will have then an influence in vegetation. But also, the valleys, the peaks, the mountain ranges.

We certainly could have done that but again, mindful of the fact that protection of significant natural areas with vegetation is principally a District Council matter. They're arguing that it is and District Councils have or are generally have identified those in their district plans. Whether that's efficient or not is another question. Whether their coverage is sufficient or not and I know of at least one District Council that is proposing to remove all these. All their significant natural areas that they've got to find in their district. Which would then, I remember looking at the National Environmental Standard for Electricity Transmission and it relied on, and I raised this at the time, it relied on a trigger point. When an area was set out in a district plan as being an SNA then it wouldn't be permitted activity for deviation maintenance or whatever it might have been at the specific activity. But if it wasn't listed in the district plan then it was permitted activity. And I said, "Hold on guys I know of at least one

District Council that's removing all it's SNA's, you are going to have a problem with the implementation of trigger mechanism."

CHAIR: Now, have you used a basic amended Pigeon Bay approach?

MR WILLIS: I believe so, yes.

CHAIR: And if that's the case of you taking them to account Māori values and historic values as well which are in that bullet point?

MR WILLIS: No, again we haven't. Rightly or wrongly, we sought to limit the study to more visual landscapes in hoping to pick up, capture cultural landscapes via criteria. Now, there's a lot of work to be done on that and we intend to put those criteria in the Regional Policy Statement in order to seek some consistency in how it's identified within the region but as I said, we would, in my view, we would need to use our entire Public Transport budget to that work for the region if we were to start mapping those other aspects of landscape.

CHAIR: Well, you may be fortunate in this area where Ngāi Tahu are doing that.

MR WILLIS: Yes, yes. So, it may well be exploring this with them in terms of what we can include in the RPS. If I may Mr Chairman, the final question of us, was to look at our reviewed energy chapter in the Regional Policy Statement. So I'm looking at page 8 at the moment. Just reading from paragraph 29, "As requested, Environment Canterbury has provided a copy of the draft, renewed RPS energy chapter." And that's attached and also the issues (inaudible) paper. I guess that - and from paragraph 30, a few observations of staff during the drafting of this chapter has been that it's particularly difficult to produce energy issues in

a way that is regionally specific. We struggle to determine what is the regional issue versus what is the national issue.

Also, if we were to, thinking about a regulatory framework, if we were to require certain things within Canterbury is that creating an unlevel playing field with what's going on in Otago versus Westland or in the North Island. So, we saw that many of these issues are better addressed at the national level. So, I applaud the intent to develop the NPS in the first instance.

We, politically we were required by our Council Laws and District Councils or requested rather, to include energy in the Regional Policy Statement. So, we therefore set out to try and make it Canterbury specific. So noting that, many of these matters were national issues we then sort to say, "What's unique about Canterbury?" And obviously the transmission lines, the hydro power schemes in the Waitaki, etc.

Looking on page 9, at point 33. What we've done in this chapter is we've, we actually included policy in smaller community scale generation. So, we lifted that out of the NPS and we took that onboard. So that's Policy 2 for us or Policy 5 in the NPS and that's on page 13 of this document.

We also included a similar policy to the NPS Policy 1 in recognising the benefits at a national level of the renewable electricity generation. And that's our Policy 3 in our RPS, that's on page 14 of this document. We didn't limit it to renewables we just recognised the importance of electricity generation per se.

[1.00 pm]

So, when we developed - there's a timing issue. We were mindful of the proposed NPS and we thought, yep, that's probably quite sound, that's

probably quite sound. But when we developed the RPS we're running a different timeframe. And potentially this policy although proposed an NPS may not end up in the final NPS. In which case, we've now included in our RPS, we've now consulted on it and then the Board of Inquiry in their wisdom pulled the rug out from underneath us, so to speak, and we're left holding a policy with no support. So we have to be quite mindful of that in terms of what we run with. So, what we ran with was what we thought were some really good things out of the NPS and that we could justify ourselves.

I think of note though, I'd like to just stress that we've also included a policy in the RPS and its Policy 5 and its on page 17. And it may be of benefit to the NPS and so if you turn to that now I'll just show you it. Policy 5 on page 17 of your documents. So, to encourage efficient reliable New Zealand electricity generation within Canterbury. And then we've set out some key matters to consider within it. And I think we provide probably a little bit more detail than the NPS does and whether that's of interest for the Board of Inquiry I don't know.

But also, looking at point (c) you'll note that we tried to make quite a bold statement there. What we've said is trying to encourage maximum benefit to be obtained from existing electricity generation facilities rather than new ones. So we're trying to encourage I guess, another scheme on the Waikati where there is already a modified environment. Now, we argued at length on that but we decided that potentially that was a better way to go than not encouraging that.

And again, we were very mindful that we wanted to add some value to the management of energy within Canterbury and this was one example of where we could set some clear direction in the Regional Policy Statement.

And we thought we'd put it out there and see what comes back in terms of consultation.

Whether these aspects of Policy 5 are of interest to the Board in terms of lifting it up into the NPS is obviously for yourself to consider. But that's an example of where we've sort to provide a little more guidance on management of energy within Canterbury.

One other point I would like to make Mr Chairman and I'll just turn back to my notes. Looking at paragraph 34 on page 9, "In drafting the energy chapter stakeholders suggested frequently that the RPS should have a strong policy around demand side management." Now, I think we raised this in our original submission and this maybe beyond the scope of this particular NPS. But our view was that, that's a critical area to be addressed in a Regional Policy Statement and very much needs support at the national level. We felt strongly about that and so did our stakeholders to the point where we made that Policy 1 in our RPS energy chapter around efficient end use of energy. Which is a Section 7 matter under the RMA.

"It was generally considered that demand side management is the most suitable method of ensuring security of supply." I'm reading from paragraph 34. "Accordingly, the draft RPS chapter also includes as the key policy, Policy 1." That's on page 12 of this document, "Promotion of efficient end use of energy."

(Inaudible) that it was difficult to make robust meaningful policy around this issue at a regional level. So again, it's hard to achieve something at a regional level when your neighbours aren't doing it when it's actually a national issue. What is special to Canterbury that you can then justify having these more stringent requirements. And so we think it's better to

introduce the national - for example, NPS could require energy to be assessed as part of the assessment of environment effects. Now potentially it is and I was thinking on my way here that you're probably point out examples to me where it's been done. However, I do think it's not done, if it is done it's certainly not done enough or rigorously.

The NPS could require energy intensive activities to include in the energy management plan. Now my view is that, at the moment energy really isn't considered when we look at assessment of effects we look at landscape impacts, we look at discharge impacts, we look at effects on traffic and noise in the community. Energy is never a concern. We can always build more generation, we could always get more power, and it's not an issue.

And I've used an example similar to a traffic management plan. So when I worked in London, any major development had to produce a traffic management plan. How are you going to deal with it? Okay, why could we not apply the same principal to energy? How are you going to deal with your energy consumption? How are you going to manage that? And another example, "Require where practical, energy intensive activities provide for onsite generation opportunities." Now, we have examples in Canterbury where dairy farms have actually managed to produce energy onsite through their delivery of water. If it's like a water race scheme. Or in actual fact as well produce energy from the gas or from methane I believe. So there are examples now that some clever, cunning land owners have been able to actually do. So generating electricity onsite is part of their development.

Again whether or not that should be encouraged or whatever, I think we can certainly try at a regional level but that's very difficult to do without national level support.

We also within this RPS, and I'll just note that this isn't actually mentioned on this page. We also sought to seek if - could we actually achieve the efficient design of subdivisions. Would we ever turn down an application for dwellings that had poor access to daylight?

And I know that the City Council approved a number of dwellings on the Caledonian site on Caledonian Road which had very poor access to daylight and in the applicants application I think must have said, "We'll just provide heat pumps." So is that energy efficient? Is that a good design? Is that good development or not? Would we ever consider that more seriously?

We're looking within here and the methods that we've got in the energy chapter just seeks to encourage that because we weren't sure, we weren't convinced that we could require through regulatory means, higher standards of insulation, design to capture solar gain, things like that. And that's the final point I'd like to make.

CHAIR: Yes well thank you very much. Just before I ask my colleagues to comment, I'm sorry to add another burden but as a result of this very, very helpful information you raise the point about the (inaudible) of us having the demand side policy option as well as the supply side. Under Section 7 (inaudible). Would you be able to just get some legal advice from your legal people and just let us have a letter whether they think that is vires issue or not?

MR WILLIS: Mr Chairman I don't think it is a vires issue what I meant, and I may have been leading you in the wrong direction was that within the current NPS that's being proposed this demand side management may not sit comfortably within it. Because it's local electricity generation. It wasn't in

relation to the Act. The RMA and King report. But that may well be the case.

CHAIR: No that's - I understand where you're coming from but it's that extra (inaudible) which I'm (inaudible). It's just a bit apprehensive about whether if we include policies that deal with demand, whether or not we could be confronted with a judicial review issue about whether we concede that jurisdiction.

MR WILLIS: Efficient use of energy's a Section 7 matter.

CHAIR: Yes Section 7 but not Section 7 whatever this is.

MR WILLIS: I can explore that and I can provide some information too.

CHAIR: Yes. It may not be an issue but it's just about some basis matter for us. That is we whether - 7(j) we're clearly well within that. We've got 7(i) which is the effects of climate change. Probably get in there all right. But it's whether the efficiency of the end use of energy, (b)(a) it's just the way the Section 32 was prepared and is structured. Just want to make sure that - some legal advice from your Council will be very useful.

And the other matter that I've got for you is that the reason we asked you to come back to us was the utility, if you like, of using Regional Policy Statements and you, with your assistance have been very helpful to steer on, have you had a look at the Auckland Regional Council chapter on energy?

MR WILLIS: No (inaudible). Auckland Regional Council's chaptering -

CHAIR: If you could do that just to see whether or not there are inconsistencies. The reason we mention it is that we want this policy statement to be useful to you rather than force difficulties. Now the other -

MR WILLIS: Mr Chairman, may I just make a point there that the fact that ARC may well be quite different from us is a is a very good example of why an NPS would be useful.

[1.10 pm]

CHAIR: Exactly, and particularly if we're going to play this on the regional side of it. Through the regional policies rather than the planning stage and the plans (inaudible) drop out of your - well from the lack of policies that you've got.

MR WILLIS: Obviously.

CHAIR: The other thing is of course we're governed a wee bit by what happens with the reforms. (Inaudible). All right, now any further questions?

DR CHAPMAN: Just on page 6. Just getting a sense of the costs of these processes and mapping no-go areas. Can you give us any guidance as to the costs associated with the robustness of identifying no-go areas within an RPS would be (inaudible)? Can you give us some sort of comparative sense of that?

MR WILLIS: What I can tell you Mr Chapman is that we've spent \$100,000 on a high level landscape study for Canterbury. And that's probably a fifth of our whole RPS budget for the year. But that is simply just a landscape study by a landscape expert at a high level as I said. There's no consultation with communities involved in that. There's no real

consideration of cultural landscapes or heritage landscapes. There's very much limited assessment. There's no legal costs involved in that. So I think would be - you'd be looking at an exponential increase if you were to do a more robust job properly. And the question is, is that necessary when some District Councils have done better jobs than others when looking at landscape. Some have done very, very poor jobs in Canterbury.

MRS BAUMANN: How much did Cass cost you?

MR WILLIS: I haven't got that information.

MRS BAUMANN: No but it was substantial?

MR WILLIS: Well you could add up our costs for our response of the District Councils and also probably the applicants as well. And the evidence presented. It'll be significant.

DR CHAPMAN: I guess a follow up question really is if the approach were to identify values associated with Section 6 matters in an RPS and then to leave to District Councils identification of values in particular districts what sort of cost would they incur in the process?

MR WILLIS: Probably more. I believe that the Banks Peninsula landscape study was more in the order of \$200,000 I believe. Christchurch City Council paid. But don't quote me on that. But District Councils have done studies to date and will be doing more I believe. So the question is how much additional cost would be required by District Councils.

CHAIR: It may be something we can ask Local Government New Zealand to do a bit of a survey on.

MR WILLIS: Yeah. I like a fight as much as the next person and I like to get a good outcome. Now if there's a good outcome for Canterbury by mapping these things in the RPS then I'd like to try and achieve that. But I'm also a pragmatist. And I'm considering the costs and benefits of the work.

DR CHAPMAN: Well yeah one thing we do have to have regard in the NPS is the feasibility in cost of imposing obligations on District Councils.

MR WILLIS: And regional

DR CHAPMAN: And yes, and regional.

MR WILLIS: As long as they last.

DR CHAPMAN: That goes without saying yes. But to the extent that these functions would be carried out anyway, there's definitely a (inaudible) cost saving and so if we can get alignment between functions that wouldn't be carried out anyway and mapping or valuing processes that are, are useful for this purpose then that alignment would, in itself, save costs.

MR WILLIS: Yeah I mean I tend to agree with what you're saying and that is why - the RPS review under my watch, we've sought to try and map out at least the high level and try and get some consistency in those landscape areas across the region. We think there is value in doing that. It's just that level of detail you go to, tend to define no-go areas is I think, an order of magnitude greater.

But just as a concluding comment I mean I thank you for your consideration and fully support the development of an NPS for energy because I think it's certainly required. But as we've said in our submission

To be read in conjunction with
the tabled evidence/statement

we think that we need to consider probably a bit wider energy management per se, not simply just renewable electricity generation NPS. And that's why our comments on the demand side. And I would be happy to provide further information to you and/or as well meet if so directed by you at some other time, yourselves or MfE representatives. Quite happy to do further work in this area.

CHAIR: We're very likely to request that. Thank you very much.

ADJOURNED [1.20 pm]