TRANSMISSION PRICING METHODOLOGY CONFERENCE
HELD AT THE WEST PLAZA HOTEL, WELLINGTON ON
29-31 MAY 2013

[10.00 a.m.]

CHAIR: Good morning, everyone. I'd like to start by welcoming you all to the Electricity Authority's Transmission Pricing Methodology Conference. It’s turned itself off again.

This conference will allow and the Authority to advance its understanding of the key points of difference between the various submitters and to explore issues arising from our preliminary analysis of the submissions and cross-submissions we've received.

I'm Brent Layton, the Chair of the Authority and I'll also Chair this conference. With me are members of the Board who will be making decisions about the transmission pricing methodology. David Bull on my far left; Elena Trout, Susan Paterson and the Honourable Roger Sowry.

Also present is the Authority's Chief Executive, Carl Hansen and several other members of the Authority's staff who may ask questions as well.

As background the conference is being held because the Authority is responsible under section 16 of the Electricity Industry Act 2010 for making and administering the Electricity Participation Code 2010. The Code includes as a schedule the transmission pricing methodology.

The Authority's preliminary view is that the current transmission pricing methodology can be improved so as to better promote competition in, reliable supply by, and sufficient separation of the electricity industry for the long term benefit of consumers.

The Authority developed and published in January 2012 a decision-making framework on which it would make decisions about the transmission pricing methodology. The framework was generally well-received by submitters. The Authority confirmed its decision-making and economic framework and published the decision in a reasons paper and summary of decisions on Tuesday the 8th of May 2012.

The Authority assessed options for the transmission pricing methodology against the published decision-making and economic framework, and in October 2012 the Authority proposed a new transmission pricing methodology and published its analysis and draft transmission pricing methodology guidelines in an issues paper for consultation.

A number of issues were raised in submissions and cross-submissions on this paper. These have been informative and we thank you for the time and effort put into these submissions. It is those submissions and cross-submissions, and our analysis to date, that have formed our agenda for this conference.

The objective of the conference is to assist the Board to make informed decisions about the transmission pricing methodology.

I'd like to outline the procedure before we turn to the substance of the conference.

I have a few points on procedure which I'll elaborate on the administrative arrangements set out in the 9th of April 2013 notification of the conference. We have carefully read all the submissions and cross-submissions, not just the staff but the members of the Board. The conference is intended to focus on the areas where we want to test and deepen our understanding of the written submissions made by the parties. No new material is allowed to be presented at this conference given that other parties would not have an opportunity to consider such information. The purpose of the conference is for the Authority to clarify and explore issues and views raised in submissions and cross-submissions on the transmission pricing methodology issues and proposal paper. The focus will not be on alternatives or modifications to the Authority's October 2012 proposal, although our questions may consider some of those aspects as raised in submissions.

We have allocated time for the parties to very briefly introduce themselves to us. The conference has been generally organised around the topics as set out in the October 2012 transmission pricing methodology paper. While this conference is focused on particular areas we wish to explore further, the fact that we may not refer to other issues in our questions does not mean we have reached a view on any matter. The conference is simply focused on the issues where we believe that it will be assisted by further explanation and discussion. While this conference provides an opportunity for views to be discussed, we would like to reiterate that the various rounds of written submissions remain the principal avenue by which we seek and receive interested parties' views. Please recognise the importance of the written material you present throughout the consultation process and the need for your written submissions to clearly set out your views in a comprehensive but succinct way. Following the conference the Authority is not inviting submissions on conference proceedings. Parties may provide a written response to a question directed to them if they are unable to answer on the day, wish to clarify their answer or if the Authority Board requests a written response. The parties will have two weeks to respond once the transcript has been published. General cross-submissions are not invited.

We intend that during this conference there should be as little formality and technicality as is necessary. The conference is not adversarial and no party will have the right to ask questions of any other party during the proceedings unless requested to do so by the Board. At the beginning of each topic session we will announce who will have - we will have questions for, we will expect the relevant representatives and expert of each participant, if there should be one, to sit at the table in front of us, and that's what the tables there are reserved for, the parties that we will be talking and asking questions to. Our understanding is that all independent experts have signed the letter confirming that they have read the Code of Conduct for expert witnesses in the High Court Rules and agree to abide by these when speaking at this conference.

Board Members and Authority staff will ask questions and we may on some matters direct the question to a specific individual. On each topic the lead will be taken by a designated Board or staff member. After they have finished with their questions other Board Members may ask questions, and following them staff members will have an opportunity to ask questions. In asking questions we will seek to canvass a full range of views on all issues. We appreciate the representatives present may not be able to answer all questions posed. If this is the case, and we consider it important, we the parties' position, we will seek written responses to be submitted after the conference. The canvassing of views will of course be subject to time availability, which we consider is likely to be sufficient.

We will publish a transcript of this conference as soon as practicable following the conference. We will publish a list of matters that parties undertake to come back to us on, on our website together with the transcript.

The conference proceedings will be recorded. Microphones are available at the table for speakers and there is a microphone available in the centre of the room here for other people to be able to speak as well. Please speak clearly and slowly so that the stenographer does not have any problems with the transcript. Please also identify yourself before you speak, that will assist the stenographer to record opinions against the right person.

The agenda provides for a lunch break and a break for afternoon tea. The agenda is flexible and we may need to make changes as we propose, although it's my intention to work to the order in which the agenda has been published. If we don't have a need to take as much time as has been set down, we will proceed to the next question. We've allowed what we think is ample time for each of the topics but we are also willing to be flexible about that. Tea and coffee will be available during the breaks. The conference room will be open during breaks. The room will not be secured during the day so please remain with your material, or only leave non-confidential material behind.

On administrative matters please wear your name tags at all times to assist the stenographer and the Board Members. You will not receive new name tags if you are attending each day, so please hold on to them and wear them each day.

Bathroom facilities are located at the back- at the side of the conference room.

If we have to evacuate the building in the case of an emergency please leave via the closest exit door, and that's either that way or that way, and meet in the assembly point which is located in front of the building out here, so you go out and down the stairs and out the front in front of the Wellington City Corporation building in Wakefield Street. The Authority's contact person for the conference is Bronwyn Christie who is in the back row, stand up Bronwyn so everybody can see you. Do not hesitate to speak to her if any matters arise of an administrative nature. If any other questions on procedure in the agenda do arise during the conference, also don't hesitate to raise these with Bronwyn in the first instance.

A reminder prior to answering the question, I ask that each speaker introduces themselves and states the organisation they represent or if they are participating as an independent expert, and please speak into the microphone and turn off your cellphone, or at least put it on to non-ringing mode.

I think it would be useful now at this point to start around the room so people can actually pop up and introduce themselves we have set 10 minutes so people know in fact who is here. (Introductions made).I think everybody’s introduced themselves so thank you very much. The first topic we have on the agenda to be discussed is material change in circumstances, and the Board Member who's going to do the questioning about that is David Bull who's on this side. So, David, who do you want to particularly ask questions to?

DAVID BULL: Well nobody for the first question, or nobody in particular.

CHAIR: So maybe you should get them up, though, that are going to be, you're going to require the other questions for.

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DAVID BULL: Thank you, Brent, good morning everybody. The first question I have relates to the submission that there has been a material change in circumstances because of the wider economic situation. So, some people submitted that and we would like anybody who had the point of view that there has been no material change of circumstances for any reason, or any reason so far identified, if they wish to comment on the submissions we've received, that the broader global economic situation is a significant change. So, is there anybody who would like to address that issue? So, I take it that there's nobody who wishes to -

ROSS PARRY: Just to clarify, people who did or didn't.

DAVID BULL: People who didn't, people who didn't believe there had been a material change in circumstances, it's been suggested to us there is another reason why there is a material change in circumstances and we're giving an opportunity for those who don't believe there's a material change in circumstances to address this suggestion.

ROSS PARRY: Just in terms of that question departs from what I thought the purpose of the conference was, that's not a matter that people have submitted on. Some people - it's a kind of cross-submission matter.

DAVID BULL: Okay, we're giving an opportunity for somebody - there are parties that don't believe there's a material change in circumstances and we're giving an opportunity to address this other matter if anybody wants it, and I'm sort of taking it that nobody does want to address the, that topic.

ROBERT ALLEN: If Vector was to address it, it would be something we would have to come back to because it wasn't a matter covered in our submission and a matter that we have given consideration to, to this point.

DAVID BULL: So, there's Vector who wants to make some comment but not now. Anyone else? Okay, we'll move on to the next question and this is Pacific Aluminium, and -

CHAIR: David, I think you should get people you're going to ask specific questions of up to the table.

DAVID BULL: So, Pacific Aluminium argues that irrespective of issues of material change in circumstances there, in fact, has been a need for a -

CHAIR: Excuse me, David, I think since we're just starting the process, I think at this point we should get all the people that you want to ask questions to up, otherwise we'll have people coming up, backwards, up, backwards and it will be not a good process.

DAVID BULL: So, we have Pacific Aluminium, Mighty River Power, Contact, Norske Skog who I think are not here, and that's the lot.

Right, I'll start again with Pacific Aluminium. In your submission you suggest that there has been a need for a new transmission pricing methodology since 2004 because the current system does not take into account dynamic efficiency, and we'd like you to clarify that point, and in particular whether you think it's relevant to the question that whether there has been a material change.

RAY DEACON: Alright, I'll start this one - Ray Deacon, Pacific Aluminium. You’ve got that? Yes, that's quite correct. I'll address it this way which I think will answer your question. The issue I have with the current transmission pricing methodology is that it was, it's fundamentally the methodology that was developed in the 90s and the last significant iteration was from 1 April 1999. Its focus is largely on static efficiency. The only dynamic attempt at any improvement in dynamic efficiency was the introduction of RCPD, but that's just a tweak on the basic structure.

What we needed, really, prior to the investment programme commencing in 2004, was a transmission pricing methodology that had a much greater focus on dynamic efficiency around investments, and in doing so would engage more parties constructively in the transmission investment debate. This hasn't happened because we have been stuck with this methodology for now, you know, well over a decade and only now are we seeing any attempt to actually produce a methodology that corrects the deficiencies of the existing methodology and has some hope of introducing some dynamic benefits as well.

DAVID BULL: So, does that mean that you believe, or Pacific Aluminium believes that the transmission pricing should be reviewed irrespective of the change of circumstances? Or is this - are you saying there are changes of circumstances that -

RAY DEACON: I believe there has been, I believe there has been a change in circumstances but really the big change occurred in 2004, and that was when Transpower embarked on a massive investment programme but had a cost allocation methodology that was manifestly inadequate to, to promote dynamic efficiency in those investments, and to actually create an efficient allocation of costs.

DAVID BULL: Brent, do you want to take questions to Pacific Aluminium?

CHAIR: From other Board Members?

DAVID BULL: From other Board Members.

CHAIR: Yes, I think that would be a good idea, yes. So do any other Board Members have a follow-up question, do they? Staff?

DAVID BULL: Well, thank you, Ray. That's clear and there's no further question at this point to Pacific Aluminium.

RAY DEACON: Thank you.

DAVID BULL: The next question is to Mighty River Power and Mighty River Power in their submissions say the problem definition that we put forward is not robust and does not represent a material change of circumstances, and what we want to understand is how you see the relationship between the problem definition and the material change of circumstances, because our preliminary view is that they are two separate questions.

NICK WILSON: I'm sorry, I’m sorry can you just sort of clarify the question to me because the way we attempted to answer that question was to look at the three points that the Authority had raised in terms of identifying what warrants a material change in circumstances, and then consider whether we, in our view they were material. So, I am not sure I quite understand the question.

DAVID BULL: Well, if I quote back from your submission. "The Authority's problem definition is not robust and does not represent a material change in circumstances that justify amending the TPM". So, we have a problem definition and we have the three points of we suggest material change in circumstances.

NICK WILSON: Sure.

DAVID BULL: They're both different parts of our paper and we're asking you if you can establish a link between the two.

NICK WILSON: Well, I mean I think section, section 2 of our submission clearly outlines the reasons why we felt the areas that the Board had identified - sorry, they had identified as material were - and our reasons why they were not; they included the fact the $2 billion worth of investments, those costs were effectively sunk. We can't really reduce them to drive efficiencies. We didn't think that there was material transmission investments within the next decade that could be influenced, and therefore no significant generational load investments in the foreseeable future.

I think appendix B of our submission sort of outlined our view on the outlook for demand and also we discussed in our submission why we feel the, that perhaps the transmission investments that could be influenced couldn't. On the statutory objective, we felt that the simplification of the statutory objective to the efficiency criteria wasn't justified. We felt that the - that the individual limbs of the statutory objective needed to be considered in tandem with each of the elements of the actual proposal, so the SPD method et cetera. And then for technological advances I think the simple point there, which was raised by ourselves and a number of participants, was because we have the ability to do something more complex doesn't necessarily mean we should, and so there still needs to be a robust consideration of costs and benefits and of the definition itself.

And again, those - I think those points are outlined quite clearly in our submissions in section 2.

DAVID BULL: Yes, those are clearly in your submission but I take it from your reply that you have actually taken the three points that we have put forward as material changes in circumstances to be actually the problem definition, that's what you seem to have -

NICK WILSON: Well, there was I think a problem definition in terms of - I mean you identified other problems with how you saw RCPD working along those lines which we address in our submission as well, but we - we did address those in our submissions in terms of those issues and I can speak to those separately or provide -

DAVID BULL: We don't need to at this stage, we're just trying to clarify material changes in circumstances.

NICK WILSON: Yep, so I mean I might be getting a bit confused. So, you are correct, they are two separate issues and I think we can respond to those two separate issues in our submission.

DAVID BULL: Okay, thank you. Other Board Members, any questions? No. From staff? Right There are now two questions for Contact and -

CHAIR: Please identify yourself.

CATHERINE THOMPSON: Catherine Thompson from Contact Energy.

DAVID BULL: Thank you. And Contact has indicated that they do not believe the change in circumstances has been sufficiently material to meet the threshold. However, you indicate that HVDC pricing should be reviewed. So, could you please clarify the position in that you say there hasn't been a material change of circumstances yet there should be something that is reviewed?

CATHERINE THOMPSON: We have consistently said that there needs to be a durable solution to TPM. We've consistently said that the inefficiency in the current TPM needs to change. What this process asked us to do is to set out whether the EA's assessment of its own regulatory hurdles had been achieved, and in the paper it suggested there were three material, three elements that could be identified as a material change in circumstance.

For us they're not compelling. I think from reading the other submitters, many of the other submissions, they're not compelling to the other submitters. So, we, we want to be convinced of it. There is a regulatory hurdle to get over. For the result to be durable we need to know that you've got over those hurdles. So that's why we've suggested there needs to be more work done in that space.

DAVID BULL: Okay. Right, understand that, but are you suggesting that there's a material change in circumstances for the HVDC and it is improvement for anything else, or -

CATHERINE THOMPSON: We don't need to suggest that. We were saying the EA has suggested that for the radical solution you're proposing in this, in this proposal that was presented last October, that the material change in circumstance was the three issues outlined. But we're saying that doesn't quite, quite get us there. More work needs to be done, and from what you said earlier in other submissions, other people are suggesting there are other material changes which would be enough to hang your hat on.

ELENA TROUT: If I could actually ask for a clarification from you. You suggested, though, that the pricing of the HVDC should be changed so I can't quite understand the logic of materiality and the fact you wanted a part of the pricing methodology to change. So, can you clarify that for me? That's specifically identified in your submission, that you actually thought that it's appropriate for us to review the pricing methodology for the HVDC. So, you can't have one versus the other. So, I'm just trying to get some clarification on that, thank you.

CATHERINE THOMPSON: I don't know if I'll be able to sort of resolve it here because what we would like it to be reviewed but you need to get over the regulatory hurdles and you haven't convinced us you've got over the regulatory hurdles. We are happy for it to be reviewed, but for it to be durable people are going to challenge you because this isn't enough. You know from your submissions there's a number of people who don't say this is enough, so convince us.

ELENA TROUT: So, supplementary question on that, based on your logic it implies that you'll be happy for us not to review the pricing on the HVDC; is that correct?

CATHERINE THOMPSON: Just to clarify, in our cross-submission we did suggest sort of a slow change, it included HVDC being changed, but I don't think it's for Contact to resolve that. All we wanted to point out was that we don't think - you haven't convinced us so the durability might be a risk.

DAVID BULL: So we've understood that point from you. We still find it inconsistent that you argue that the HVDC should change but you're then saying, presumably, that there isn't a material change for the HVDC either, or hasn't been proven.

CATHERINE THOMPSON: No, we're not saying that.

DAVID BULL: You're not saying that, okay.

CATHERINE THOMPSON: We may come back with a written response on that if we feel we need to justify the regulatory hurdle.

DAVID BULL: Okay, we'll get on to the next question -

CHAIR: I think other colleagues might -

SUSAN PATERSON: I guess I would be interested to know if you think there are any other material changes that we have overlooked and not included in our definition of the regulatory, you know, in that regulatory hurdle area?

CATHERINE THOMPSON: No, not - we haven't considered the other alternatives, because we didn't consider that part of our role, to consider the other alternatives, I believe others have but we haven't.

CHAIR: Roger?

HON ROGER SOWRY: No, I'm fine.

CHAIR: Well, then the other bit to square the circle is, do you think we need to pass the threshold of identifying a material change before we review the transmission pricing methodology, because that seems to be the only other possibility for us to review the HVDC as you call for.

CATHERINE THOMPSON: I think you should ask your lawyers.

CHAIR: Staff?

DAVID BULL: We'll proceed to the second question and you indicated in the submission from Contact that the majority of investment decisions are sunk and we would like you to explain, please, given the very large amount of money that has been spent, and therefore the quite large charge that has to be imposed within the industry, somehow, is that not a material change?

CATHERINE THOMPSON: Well, the point that we made, and I'm just reiterating what's in our submission, is that the efficiency gains from changing the decision-making, which was suggested to be some of the benefits from the proposal, they can't be achieved in relation to decisions that have already been made.

DAVID BULL: Any supplementary questions? Okay, thank you for those submitters -

JOHN RAMPTON: Do you think – Sorry, John Rampton. Just a very blunt straight forward question. Do you think the increase of the amount of money required to be recovered is a material change in circumstance; yes or no?

CATHERINE THOMPSON: For the reasons we set out, what - this proposal suggests - you know, one of the elements is that the decision-making will result in more efficient decisions being made. We said in our submission that we didn't think we'd get there. $2 billion does need to be recovered but I think we also said elsewhere in our submission before the TPM comes in, which is now, you know, any change, which is now a year later, a large number of those costs would have already had to be recovered. So, I don't think it's a "yes" or "no".

JOHN RAMPTON: All right, thank you.

CHAIR: Any other questions?

DAVID BULL: Well, I'm just mindful that going back in time to 2008 there was a conference on the DC approval and there was a little bit of controversy at the time, but at that conference Contact said DC pricing should be reviewed. Do you actually have any comments?

CATHERINE THOMPSON: I suppose the first comment would be, I wasn't there. There are a large number of people in this room who were. I mean if it is the purpose of this conference to analyse our submissions that we made on this consultation, or are we going to sort of rehash history and say someone said this on some day. I mean, if it's that, then we, you know, I think we'd probably all need - well, actually there's a lot of people who probably were there but certainly Contact would need to go back and get those people who were there in 2008.

DAVID BULL: Yes, I was there. No further questions. We have a question for Norske Skog but they're not represented, are they? So, Brent, that's the end of this set of questions on the material change in circumstances.

CHAIR: Thank you, David. The next set of questions -

BRONWYN CHRISTIE: Is it possible to read out the question for the stenographer for Norske Skog and then it will be in the transcript so they can see it.

CHAIR: I can do that, unless you want - David, you can do it, do you want to read it out, the question for Norske Skog?

DAVID BULL: So the question was that Norske Skog submitted "We do not believe that the changes in circumstances are material enough to warrant a total re-write of the TPM. You considered that the three justifications provided by the Authority did not constitute a material change in circumstances."

(a) you do not consider that there is a case for making targeted changes to the TPM so what do you consider warrants a change of circumstances; and,

(b) what are the changes to the TPM, if any, do you consider might warrant consideration.

That's the end of the question.

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CHAIR: Thanks, David. The next set of questions are about the process of the TPM review and the person who will ask the questions in relation to this is Elena Trout.

ELENA TROUT: Thank you, Chair, and I call Contact, TrustPower, ENA, excuse me, MRP, Pioneer Generation and DEUN and Genesis to the table. You’re all seated?

I just remind you to assist the stenographers, please give your name as I direct the questions to you.

As you're aware in, Subpart 4 of Part 12 of the Code outlines the process that the Authority goes through while reviewing and determining a TPM. So, my questions are around the process that's outlined in the Code.

So, in regard to Contact, you suggested that enough consultation opportunities should be provided so that we got consensus and I'd be seeking a view of what you mean by "consensus"?

CATHERINE THOMPSON: Catherine Thompson for Contact Energy.

In the context of a TPM that's been under discussion for a long time, the radical nature of this proposal has obviously led to a lot of opposition to it. Our view is that in order to move forward with it, there needs to at least be a significant number of people in support, or supporting change, and I think our concern was from what we - from the discussions and the various forum throughout the consultation process it was apparent that there was a lot - and this is evidenced by the ultimate submissions, is that the amount of opposition was so great that coming back to that original most important thing, to get a durable solution, was going to be hard because you were going to be challenged. So, we were just saying, and this is where our whole submission came from is looking at it practically, trying and get more people across the line will get you your reduced disputation benefits and all the benefits you're looking at, but where we were on the 28th – you know, at the end of February, the submissions were due, there's significant opposition and it just didn't feel that it's a good idea to press on when you really haven't got - you haven't got everyone behind. You don't have to have everyone behind you but at least more than you got.

ELENA TROUT: It would be fair to say that consensus has not been reached in the last 20 years?

CATHERINE THOMPSON: But I think we moved further, there was closer consensus more recently than there is now. Now we're a long way from where we were a few years ago. I mean we're not going to go - I don't think we should be rehashing -

ELENA TROUT: So, is that Contact's view, that we were closer in the current arrangements?

CATHERINE THOMPSON: No, our TPAG, I'm talking about the decision to change. So the iterative process that took place before this proposal got presented had you closer to consensus than this proposal.

HON ROGER SOWRY: That process had a 50/50 split. So, you're more happy with a 50/50 split than say a 70/30 split? Are we doing it on a popularity basis of numbers of submissions, or are we doing it on a kind of rational charging basis to recover costs; what would you prefer?

CATHERINE THOMPSON: No no, I mean it's not my preference. What we were saying is you need to get more people over the line.

HON ROGER SOWRY: It - yep.

ELENA TROUT: Any questions from the Board on that matter? From management?

CHAIR: Isn't it likely that when you suggest to people that they're going to have to pay something and they think that there might be a possibility of arguing that they should pay nothing, that most people would do the latter so that you are likely to get almost universal objection in the rounds that you're getting that sort of a change. This is a billion dollars of poisoned spinach which nobody wants to eat a year and we have to find someone who is going to eat it in a rational manner; do you agree with that or is it a consensus job?

CATHERINE THOMPSON: No, we certainly agree that you need to - you know, it's a bitter pill but, and people will fight it, but people are really fighting this. That was our, that was our point. You know, if Contact who wants this change is sort of a little bit, is not convinced by it because of, for all the reasons we've put out in the submission, then it needs more work. That's all we were saying. It needs more work. This is in the context of process. It needs more working groups, it needs more people to give time to think about it, to work out what you're going to change.

ELENA TROUT: Moving to my second question, and I would like to address a matter that Contact just recently raised, but to you TrustPower, you talked about wanting to convene another working group. Even in my short history I could name at least five or six working groups, including Chief Executives working groups who I think did not actually meet consensus as Contact suggested. So, can you give me an understanding of how another working group would assist the EA in coming to a conclusion on this matter?

PETER CALDERWOOD: Peter Calderwood from TrustPower. Yes, thank you for that, yes, and I have been involved in many of the working groups over the years so I know there has been a lot of them. I think the key issue here is that - I think there's two things and I'd probably go back to the outcomes of TPAG first. Yes, there was a split decision but the actual, the split decision was really on the HVDC allocation only. There was a lot of consensus on much of the proposal coming out of TPAG. And so what that did is it did narrow down really the contentious issues, and the contentious issue obviously was still HVDC charging. And so I think that what you can, by convening another working group or some industry forum to take forward to try and narrow down to consensus, the EA Board could actually provide some direction about principles to be followed, and then allow the, an industry working group to really come out with a practical way of actually implementing. And that's probably one of our main concerns about this proposal, is it hasn't had that what I call stress test from the industry participants that have to live with the outcomes of the pricing methodology.

ELENA TROUT: Any questions from the Board colleagues? Staff? To MRP, you raised a number of concerns about the consultation process. What were specifically your top concerns, and I would prefer you - I have read your submissions so I just want you to clarify with me just what those top concerns were, bearing in mind the consultation process started way back with our framework documents and then moved through to the paper in October, and we certainly gave additional time, we heard the industry needed additional time to respond accordingly. So, what were the top sort of issues in terms of the process of concern?

NICK WILSON: Nick Wilson, Mighty River Power. Thanks for the question. So, I go back to the economic and decision-making framework process. I guess, and I'll caveat with this, I wasn't with Mighty River Power during the TPAG process, so I had just joined when the economic decision-making framework was coming out and I think the sense I got from talking to people within the industry was there was a bit of surprise that we were potentially going back to a first, almost what appeared to be a first principled approach to transmission pricing. I think as we raised in our submission, whilst the view from the Authority was that TPAG hadn't come to a conclusion, hadn't come to something that you could take forward, TPAG did in fact make a recommendation around HVDC, and that was we should test the efficiency losses, or the Authority should test the efficiency losses, and then take a decision between the so-called majority and minority views, ie status quo for the long-term postage stamp for the HVDC. We understand that work was done by the Authority although not released so those efficiency losses were a bit lower.

So, I guess we, from our view we sort of thought whilst TPAG hadn't come to a conclusion there was a process there that TPAG had recommended and we didn't see the Authority responding formally to that. That seemed to be that that recommendation was just lost.

Now, on the economic decision-making framework we felt that, again, the, the framework itself wasn't particularly useful in terms of some of the wider issues that we needed to, to resolve, and we’ve outlined that in our submission. I don't plan to go over that because I'm sure you've read that. The portrayal that we sort of felt from the Authority was that there was vast agreement and support for the framework, whereas our view was very very firmly that at the fringes of the grid we felt that something like beneficiary pays can be implemented but it gets much more difficult as you get into the shared network, and that that had kind of got lost and therefore the value of the framework to us seemed limited.

Subsequently as we went through the process and we got to more information being released, we got the very strong sense during all of the, well, I mean initially we only had 7 weeks to respond to what I think was a 200 page plus document, I'm sure you've got them sitting in front of you. It was obviously a major proposal in terms of reallocating costs on the sunk grid from 2004, whereas previously we had been dealing with HVDC only. So, industry had to have time to get its head around the fact that we hadn't heard anything for nine months from the Authority and then suddenly we had a 200 page proposal and only 7 weeks to go over that.

Now, we thank you very much for your consideration of people's requests for more time and I think that has demonstrably shown that people have invested a lot of time and resource to understand the proposal and I think give you some very clear feedback on ways we think we can take it forward.

Our issue was with subsequent consultations was it was quite apparent to us the proposal was really still in a draft form, a lot of the core details around how the residual charge for instance will be allocated, was really, hadn't been fully thought through and I appreciate the Authority was seeking feedback on it but for such a large component of the actual allocation we felt that simply saying, well, we will give that responsibility to Transpower to resolve, that to us just seemed to be something that really needed to have a lot more thought, and there are, I think we detail in our submission other areas where we felt it just didn't feel like an answer to the questions industry was asking on how core components of this framework would work, and the response that we got continuously was well, you know, it's a bit of a value judgement. We have positive benefits, therefore implementation costs don't matter.

So, the consultation process was a difficult one because at every turn we were trying to raise issues and get clarity but yet we felt that the responses that we were getting back from the Authority were, well, either the work hasn't been done and we'll have to do the work, so an example of that was well, what are the impacts going to be on our business and we would have thought that should have been quite key before you released the proposal, to be able to say to participants around this table, we think these impacts, this is what the results will be for your company, what will be the results for consumers given the statutory objective for the Authority we would have thought again been key for that work to be done but it would have been good to have that right from the get go.

ELENA TROUT: So, so what additional steps do you feel that the Authority need to do in regard to their legislative requirements of, in consultation? I hear what you're say -

NICK WILSON: From this point forward?

ELENA TROUT: Yes,

what additional steps

NICK WILSON: What we would have liked to see done from this point forward is-

ELENA TROUT: in context of our legislative requirements.

NICK WILSON: Right, well I think your legislative requirements clearly, will clearly indicate that you will need to demonstrate to the industry that there are net benefits coming from your proposal to consumers that are in the long-term interests of consumers. You've received a lot of feedback, I think, around your cost benefit analysis and some, some very strong suggestions from ourselves and others in terms of how we might be able to redo that, and I understand the Authority has made a commitment to re-undertake the CBA.

I think you need to take into account all of the options, and there are other options that people have put on the table and not just your proposal, along with modifications to your proposal, and those need to be assessed within, within a clear net benefit framework. And only if there are net benefits, should a proposal be progressed I would have thought.

ELENA TROUT: Thank you. Can I just ask Pioneer Generation their views about consultation, and you made a number of comments in regard to the consultation process as well. So, could you please clarify what your concerns were?

MARY ANN MITCHELL: Mary Ann Mitchell representing Pioneer Generation. I would just like to introduce Rebecca Osborne who is joining me from Pioneer Generation, we worked together on the submissions.

So, our concerns about the consultation process and the outcome regarding embedded generation is that there didn't seem to be very much consideration of the impact on embedded generation in the development of the TPM. In fact, I think the words "embedded generation" were mentioned only two or three times in the whole consultation paper and the proposal has significant implications for the, the payment from network companies to embedded generation for the benefits of - provided by generation that's embedded within local networks, the the payments based on the RCPD charge and that is obviously going to decline substantially under this TPM proposal.

The other issue we had during the consultation process was that the SPD charge, it was very unclear whether Pioneer Generation would face that cost and the Authority staff were very helpful in running modelling for us but we got a different answer each time we asked a question, so it's very unclear whether we'll face that charge or not. Thank you.

ELENA TROUT: Thanks very much.

If I can actually ask that question to Contact in terms of their - they also raised a number of comments about the consultation process and concerns about that. So, could you clarify for me what you saw were the top-liners of the consultation process?

CATHERINE THOMPSON: It was mainly time. That the extent of the changes, particularly in the main proposal document saw us sort of having to come to the Authority sort of cap in hand and ask for more time. We asked I think in relation to the first submission period, that got extended twice and I think we asked for both of those, along with others obviously.

And we also felt quite strongly that the cross-submission period wasn't long enough. As you know from your reading, it's just the volume of information provided, four weeks, bearing in mind we're also running a business and we all have other bits to our job. It was just not long enough and it - I think that was evidenced in the reduced number of submissions you got on cross-submissions, and the reduced detail. There was just - there just wasn't time.

ELENA TROUT: Thank you. Board colleagues, any questions on that? Management?

JOHN RAMPTON: John Rampton. Just a query for Nick. Did I hear you say that we'd made a commitment to undertake a revised CBA because I understand we've made no such commitment?

NICK WILSON: I'm referring to the article from downstream conference where I think Bruce Smith was quoted as saying, yes, I think we need to go back and look at the CBA. So apologies if that wasn't an official commitment from the EA, but irrespective, we would strongly advocate for that process.

JOHN RAMPTON: Thank you, I just wanted to clarify. Thank you.

ELENA TROUT: The next question is to MRP. In your sub - cross-submission actually, it was on page 1, that we should consult more broadly with Government organisations, and I'm sure you're aware of the MOUs that we have, and the no surprises arrangements that we have with a number of Government agencies, as well as the various Ministers. What were you expecting us to do in addition to that?

NICK WILSON: I think just terms of making those Government departments, and via the Memorandum Of Understanding, aware of the feedback that you'd received on, on the policy, making sure that they were fully appraised with that, and I'm sure you would have done that but we see that as an important step obviously in terms of transparency, that other Government departments would be informed.

ELENA TROUT: Okay. So, nothing more than that. Just to remind us that- of our commitment?

NICK WILSON: Apologies if - yeah, I don't know that - it was certainly I think just to ensure that - there's obviously impacts across a wide range of stakeholders and I think that was just to say that we need to make sure that they are informed of what's happening.

ELENA TROUT: Thank you. Board Members? Management? Moving on to my next question which I would like to ask Genesis and TrustPower and I'll start with TrustPower. You suggested that a transition period is appropriate to underline the investment decisions which have been made under the current TPM. What length of transition period were you considering?

PETER CALDERWOOD: Peter Calderwood from TrustPower. Look, we probably haven't - didn't consider what period and it probably does depend on what the magnitude of the actual wealth transfers and changes actually are, and it was - I mean it was part of the recommendation from the TPAG majority decision, that you should have a transition period. I mean, investment certainty is one of the important things for any business investing in the electricity, or in any industry, and step changes make investors very nervous. So, as I say, the length of transition would depend on the magnitude of the change.

ELENA TROUT: Can I ask that question to Genesis.

JEREMY STEVENSON-WRIGHT: Jeremy Stevenson-Wright. I think Peter's certainly outlined the investors' desire or need to have certainty around the transition from that perspective, but from our perspective we also think it's just important to have a transition to recognise the impacts that a change in methodology would have on consumers, and that's why we're quite keen to see that, again reflecting the , the amount of change that any agreed TPM would impose, I think you do need to consider what a transition period might need to look like to allow for consumers to adapt to that new pricing. For example, the SPD method, if taken as currently proposed, would probably impose, would probably change what kind of costs and how often costs are translated into pricing for retail customers, and I think a transition period would be required to allow customers to adapt to that change rather than force upon them upon a key date.

ELENA TROUT: Questions from my colleagues?

CHAIR: To both, both of you. One of the reasons that equity investors get a return greater than Bonds usually is because they face a number of risks. Now, one of those risks that's usually trotted out is regulatory risk. It sounds to me like you're asking to be absolved of regulatory risk but are you also offering lower rates of return to consumers?

PETER CALDERWOOD: I'll start. Peter Calderwood, TrustPower. You're absolutely right, regulatory risk is is part of any business' considerations when they're looking at their rates of return. But I think the counter to that is we also expect good regulatory practice and some some certainty coming out of regulatory over a period of time.

So, typically jurisdictions around the world that we have looked at take sovereign risk and the imposition of regulatory risk on businesses within their countries very seriously and that's why you often see transitions grandfathering, and those sort of things.

We would- Our view on the TPM as proposed is it's likely to increase the return required by those people investing in generation assets in the future rather than being decreased. So, there definitely will be a change. With increased uncertainty there will be increased risk and increased return pressures.

JEREMY STEVENSON-WRIGHT: A very topical question at the moment in terms of regulatory risk. Insofar as - I mean I completely agree with what Peter's said there, and I'm conscious that Molly is right next to me in terms of consumer impacts and providing for a transition to allow for consumers to adapt to new ways of doing business. I think in terms of our retail billing approach we certainly, we signal to our consumers that prices can change but there is an expectation that they don't change within year, and that those price changes are clearly signalled, and I suppose from a regulatory perspective you'd expect the same courtesy to be given to participants in the market, especially regarding the magnitude of change that we're looking at in some of the proposals here. Now again, going back to my earlier answer, that will change depending on what the final outcome looks like from this process.

ELENA TROUT: Management have any questions?

DAVID BULL: I'd just like to clarify from the two parties that have made this point about transition periods, is what exactly do you mean by a transition period; do you mean, just hypothetically, it all starts in four years' time and you've got four years to adjust, or it goes to stage 1 say in three years, and stage 2 in six? Did you have any view of what a transition period is?

PETER CALDERWOOD: Look again, we haven't given a great deal of thought to how a transition period would work, but I actually go back to the comment I made before about, for implementation the use of industry working groups and the like, because often if you get the right people in the room you get the best outcome of a consensus of, once a decision has been made how you, you move to that in an orderly fashion.

JEREMY STEVENSON-WRIGHT: Again, very difficult to say at the moment but I suppose depending on the choice of option that moves - that is taken in terms of final TPM it may actually lead itself to having a transition period, transmission period kind of built in. If we focus on future assets, for example on SPD methodology, then your need for a transition period is markedly less and arguably probably not there at all. So, it does really depend a lot on what the final outcomes are of this, the Authority's process around the methodology.

I suppose the only other thing is once you've established that, I do think that it really would be effective to have a working group, maybe even to target and specifically answer that question around what's an appropriate transition period or method for the different elements.

DAVID BULL: Thank you.

ELENA TROUT: My final question is to DEUN, and if I can quote the cross-submission of DEUN which says that "incremental change will only perpetuate the fault of the present consultative processes".

I would appreciate if DEUN explained to me what they believe the incremental changes would - why the incremental change would be inappropriate?

MOLLY MELHUISH: Because we think that - and this resulted from quite a bit of discussion with two or three of our people, we think that we would make the most progress in meeting the objectives of the Authority by returning to the status quo. So, the idea of incremental change suggests just a perpetuation of this and that and something else, and we thought that it was time, really, to say enough is enough. We had a system which worked well, which had a small number of people, and I commented in the cross-submission, three submitters strongly oppose the HVDC current pricing, but there seemed to be reasonable support for that element of it throughout. And the - just looking forward to working party after working party, and arguing this and that, was not attractive to us.

ELENA TROUT: Questions; management?

MOLLY MELHUISH: Could I add something?

CHAIR: No, this is an opportunity for us to ask questions, are there any-but Susan has a question she wishes to ask.

SUSAN PATERSON: I guess this is a question primarily for Mighty River Power. I mean, one of the things that you brought out in the first area round, change in material circumstances, was the question of going back to a first principles basis and doing the economic framework so we had a rational basis on which -against which to make decisions, and we looked at that and said there have been so many go rounds on transmission, unless we start and do have a, have a robust framework against which we make decisions, and of course that framework aligns with our objectives, that we saw that as being I guess the best and the, the right way of moving forward to try and reduce any regulatory challenge, because we had gone through a proper process right through. I see that you were surprised that we went back to that basis and thought it would just be incremental tinkering. I was just wondering how you feel, having seen it all pulled together at the end, whether there was a better way of doing it and whether incremental tinkering wouldn't have still raised all the same challenges to our process that going back to first principles didn't. Because we took a lot of time going back, I guess, putting that framework in place. We knew it was going to delay the process significantly to do that whole extra round, but we felt if we were going to do it, it has to be done properly. So, I'm just interested in your comments on that.

NICK WILSON: Yes, thank you for your question and Nick Wilson, Mighty River Power. Look, I think we fully appreciate how difficult transmission pricing has been and and I think in our submission, our cross-submission, we appreciate that I think what the Authority has done is at least widened the debate and has opened it up and I think that's been productive.

In terms of the decision in economic making framework, yes, can appreciate perhaps your rationale and the outlining it there as to why you went back to first principles. I think as we've thought about it more through the process, and to answer your question around what would be better, we do make some some suggestions in our submission around the principles that we found as well around, from the PJM situation, around just high level principles. The things that we think are also important considerations in tandem with the framework. I mean the framework will will talk about a preference for different pricing approaches but the PJM principles were, where we felt they were valuable is they allow you to think of, well, if you look at our mechanism and we compared that mechanism against it, you know is it understandable for, does it allow for stability of charges. But these things aren't all immutable, and appreciate that you know any regulator is challenged in the things that it has to consider, but perhaps, perhaps a wider consideration of other principles could lead to, or could avoid perhaps some of the feedback that you've had from participants, and perhaps rather than having nine months of no communication, if there had been a sort of situation saying we've got our framework, here's some ideas that we're thinking against and also here's some other principles that we've measured them against, seeking that feedback perhaps earlier on might mean that we're not sitting around a table in this sort of format at the moment.

So, look, I you know, I appreciate that it is very difficult and I think there is some value in the framework but there are also other principles that need to be considered, and if we can consider those going forward, I think we'll get a more robust outcome.

SUSAN PATERSON: Thank you.

CHAIR: Following up from that, I presume you're aware that NZIER went through the proposal and considered exactly your criteria that you had and reached on all I think bar one contrary view to yourself, so it didn't seem to sort out that set of criteria, which way we should go. Isn't that the difficulty of having multiple sets of criteria?

NICK WILSON: Sorry, can you sort of clarify?

CHAIR: You set out a good regulatory in your submission, if I recall correctly.

NICK WILSON: Correct, yep.

CHAIR: Then in the cross-submissions NZIER went through and applied your your set and reached exactly the opposite conclusions on almost every element apart to yourself.

NICK WILSON: Sure, I mean obviously that's for the regulator to arbitrate. I mean people will take different views on everything, so. I can give you a more, give you a written response as to why we think NZIER may have got it wrong but I mean we're going round in circles I guess on that, so.

CHAIR: But do you agree just having a list of criteria doesn't actually solve the problem of getting a consensus necessarily?

NICK WILSON: Well, for one, we aren't of the view specifically that maybe consensus is achievable. I mean, I think there is still a role that the Authority is going to have to play. So, we certainly didn't say in our submission that we should be looking to achieve consensus and I think it's going to be difficult given, as we've all observed, the wealth transfers involved and the zero sum gained that we deal with in transmission. So there is a role, and we've always said there is a role for the Authority to play in having to arbitrate.

Now, principles are useful, we're not saying they are the solution, but if we just take the economic decision-making framework on its own it doesn't appear that, based on the responses that you've had from participants, that that alone has helped to solve your problems. So, all we're suggesting is that there are other principles you could consider, and you need to consider the motivations of people when they're responding to that as well, of course.

CHAIR: It's back to Genesis and TrustPower. I'm still interested in your view about regulatory risk. If the Authority adopted a transmission pricing methodology that was clearly and demonstrably in line with its statutory objective and that objective has been there for some time, would, is that a regulatory risk the Authority is creating, or is it just something you should have foreseen, that circumstances would change given what had happened in the legislation, and if that was also consistent with the previous legislation, is it, isn't it something you should have foreseen? How much is a regulatory - should a regulator be bound from you can't charge anybody any different than they think they're going to be charged just because they've made investments? That's the guts of the question. Even if it should be that the regulations are just that are being proposed are an outcome that of in fact should have been known to the investor.

JEREMY STEVENSON-WRIGHT: Thank you Peter, I mean that. Well, I mean I suppose in the context of a transition period to a new regulatory environment, I think the answer to that is clearly, well, the regulator can and is enabled to change in accordance with the statutory powers they have. It's the means and the way by which they effect that change that's really important, and that's what we're talking about when we talk about transition periods. It's important to quantify what the shock will be and then respond appropriately with the, with the transition period that allows that.

On your broader question about how regulatory risk is perceived, I think you're right. There is a certain amount of regulatory - I mean, my role exists because Genesis Energy accepts there is regulatory risk in the electricity market in New Zealand. It's a primary function of what I do for the company. So, to some regard there is already a response, and there's a number of regulatory managers here today. So, across the sector adapting to that regulatory risk. But it does, there is I think an obligation on decision-makers to ensure that their decisions do enable a reasonable transition, are consistent, and that may not be written into the statute, but although the - say, for example, if regulator A wants to do something which they've never done before but are perfectly legally entitled to do, although it's inconsistent with previous methodologies or previous approaches I think there's still an argument there that they needed to signal that change from a previous expectation a lot earlier, and they need to think about how to communicate that change to their stakeholders, and with that I think I'll probably hand over to Peter.

PETER CALDERWOOD: Peter Calderwood from TrustPower. I come back to Brent's question where basically you're saying, we know what the statutory objective is and if the EA comes up with a methodology that meets that objective, yeah, I think basically you're saying, well, we should be expecting that. I think in part that is the answer, but it does - I think there needs - as Genesis has said, is there needs to be almost some expectation of the general path that we are going. And I'd compare a little bit - I mean I deal both here and in Australia with both operations and regulatory processes on both sides, and we do find there's a lot more cognisance taken to, yeah, sovereign risk and making sure the past investment decisions that have been made on a certain set of rules do persevere into the future and it does give more business confidence.

And if we come back to the transmission pricing, there will be multiple solutions that will meet the statutory objective. I mean, I don't think anyone here can say that there is only one answer to transmission pricing. Now, I think one of the things, one of the clear things about change to that is to show demonstrable cost benefit. Now there's a lot of argument about the cost benefit, about the proposal, so I think that's why it's really important because there needs to be a demonstrable benefit, and I think the benefit has to be far greater the more that you are changing from where your status quo is. So if you're doing a radical change, you will need a far more significant cost benefit, positive cost benefit than what you would if you were doing what I call minor tinkering. Because we know that we don't actually know what the answer actually is again, and some of the responses to the submissions have said, well, it's actually a negative cost benefit or positive, and some are saying positive. And so, I think it's, the more radical the change, the more careful you have to be.

ALEX SUNDAKOV: Alex Sundakov, Castalia. I think it may be just useful conceptually to, thinking about this question, to separate the question of regulatory risk from the cost of dealing with volatility.

I think if I understood your point correctly what you're saying is that there's a degree of underlying regulatory risk which clearly the market is absorbing and earning a return through to compensate itself for, and there may be debate about whether the kind of decision that TPM represents falls within that regulatory risk, or whether it's such a big decision that somehow it can't be anticipated. But I would suggest that it may be useful to think about this slightly differently.

The regulatory change, whether this falls within the normal regulatory risk or not, is going to introduce significant volatility into costs and revenue streams.

So, the question I think from the perspective of customers is, whenever there is additional volatility, either that volatility has to be absorbed by the customers or somebody has to pay for dealing with that additional volatility.

So, in terms of the transition period to allow the customers to adapt, I think it's a question of finding, you know, the market will need to find a way; does all that increased volatility get passed on to customers who may be accustomed to having quite stable prices but actually now will have to cope with less stability, or to the extent that that volatility will not be passed on to customers, somebody will have to hedge, hedging is not free, the costs will need to be built up, and again there seems to be a value in giving the market time to adjust to cope with that additional cost. Which is, that's nothing to do with the regulatory risk, that's to do with the fact that a regulatory decision introduces a new level of volatility into how the market functions.

ELENA TROUT: Can I open that question up to the floor, to others to respond to that question on regulatory risk.

RAY DEACON: Ray Deacon, Pacific Aluminium. Look, this subject has been open to debate formally since at least 2004 when the Electricity Commission kicked this off, and prior to that the South Island generators disputing the HVDC charges. The industry would-has been well aware for well over a decade that there were going to be changes to the transmission pricing methodology. Investments were made, and significant investments have been made in the light of that possibility. The supply side must have understood that there was a likelihood that they would pick up more direct charges depending on what methodology came up with. So, although this is - I've characterised the proposal as novel and a significant change from the status quo, that shouldn't have been beyond the realms of of foreseeable outcomes for the supply side and others.

MOLLY MELHUISH: Yes. The regulatory risk is – now we DEUN is most concerned about the volatility and the likely increase in prices as hedging is done, and we think regulatory risk will be increased to the degree that major new proposals are introduced, as they have been here. So - but our concern really is about the price impact of volatility.

ELENA TROUT: Any further?

PROF LEW EVANS: Thank you, Lew Evans. I'd just like to comment on the introduction that you gave, Brent, about regulatory risk. One of the things about having tied to the objective of the organisation that you head, ie the purpose of the Act itself, is that that provides a framework for all the processes that you've put in place from then on. And so that if you have a process that is not, or a part of a pricing methodology that is plainly, say, dynamically inefficient, then that's something to be dealt with, because otherwise it's inconsistent with the framework and the objective function which you have moving forward.

And I think that you can think about regulatory risk as, yes, there will be changes along the way but they all ought to be in accord with what the objective function is, and your objective function, broadly speaking, is dynamic efficiency. And so that things that are plainly not in accord with that are things that are either going to be, pose uncertainty about their durability in the future, and secondly, there's little reason why they should exist if you are at an opportunity to change them.

CHAIR: Thank you. Is there any other people?

ROSS PARRY: Ross Parry from Transpower. Just sort of a slightly different way of articulating what's already been articulated I think, but it's useful to separate out the regulatory risk around the ultimate sort of outcome in terms of the value shifts that we're all concerned with here.

ELENA TROUT: Sorry Ross, could you speak up, please.

ROSS PARRY: Sure. Just saying it's useful to separate out the angst around the ultimate value shifts you're going to experience here and just what you're observing I think is a lot of angst about the deliberateness or, you know, slow deliberate process versus what feels to people faced with something very complex to be a little bit hasty and a little bit of angst around workability and implementation and just getting their heads around how it's going to work. So, some of the regulatory risk is not so much about the ultimate destination, but about how slowly and deliberately and cautiously we get to that destination.

ELENA TROUT: Thank you.

REBECCA OSBORNE: Rebecca Osborne from Pioneer Generation. I - To me the angst about this is not so much about the regulatory risk, it's about the introduction of volatility and complexity and how difficult that will be to manage unless you've got the resources of the big top four or five, and I don't think that's consistent with the statutory objective of the long-term benefit of customers because it's adding a lot of risk into our businesses, a lot of difficulty in making sure we're paying the right charges and that we're pricing correctly and fairly to our customers.

CARL HANSEN: Carl Hansen from the Electricity Authority. A number of parties that have just spoken have raised concerns around volatility and I'd just like to hear from those that have calculated the volatility, you know just how volatile would the charges be relative to the volatilities that particularly, I guess, the generators and retailers face from the spot market, in quantitative terms?

JEREMY STEVENSON-WRIGHT: It's Jeremy here from Genesis Energy. In our original submission we included some diagrams - sorry, I'm just flicking through, locating them now - an analysis of the volatility that we would - and, again, given the number of variables and the complexity of the proposed SPD and RCPI/RCPD methodologies, it's difficult to to really get 100% accuracy but it certainly was what we considered a good estimation of what volatility would be for a generator at Tekapo and also for a 1 megawatt consumer in Auckland. And I think that information there provides quite a good illustration of the level of volatility we're looking at.

So, for that 1 megawatt base load customer we identified a volatility, a volatility band of $4,000 that sits there for that particular customer. Now, subsequently, and I'm conscious that I don't want to go too far on this because, Brent, you made it very clear we're not allowed to introduce new evidence per se, but we have done some similar analysis looking at South Island and North Island customers, again based on Genesis Energy customer profiles, to see what volatility we would expect in other, on a more regional basis, and it does align very closely with the level of volatility we have seen in that Auckland analysis. We're looking at around a minimum of 40% volatility in relation to the transmission costs that a consumer would face. Now, that might not seem like a lot of money for us, but I imagine for an individual consumer on a monthly basis, your transmission cost portion going up or down by 40% is probably relatively significant.

CHAIR: Transmission costs for a consumer are, what, about?

JEREMY STEVENSON-WRIGHT: 10%.

HON ROGER SOWRY: You say "9" in your submission.

JEREMY STEVENSON-WRIGHT: Sorry, you're quite right, Roger, Mr Sowry, 9%.

CHAIR: Right. Not 0.9 times 0.4, 0.036, or have I got that wrong - which is 3.6%.

HON ROGER SOWRY: 3 and a half percent up or down.

JEREMY STEVENSON-WRIGHT: Yeah, I'm not quite sure. Are you suggesting that that's not significant for a consumer?

CHAIR: Well, is that right? You multiply those two together; do you agree you do that?

JEREMY STEVENSON-WRIGHT: Well, if I go back to our original submission and we did actually note that it's an uncertainty of around plus or minus 3.4%.

SUSAN PATERSON: I was just interested, and this is general question to people in the room, the issue around regulatory risk has come up several times. If there is a transmission pricing methodology which is endurable over time and therefore are less likely to need to be changed in the future as the electricity market evolves, is - is that something which the participants and consumers would prefer, and so is that a favourable aspect of a transmission pricing methodology that is found, ie one that can evolve and meet the needs of market participants and consumers over time?

JEREMY STEVENSON-WRIGHT: I'll take the opportunity to answer that question, if I may. Jeremy from Genesis Energy. I think those goals are laudable and I think our overall submission supports methodology that would meet those goals, but we are not satisfied the proposal currently on the table, so to speak, necessarily does meet those goals. So, it comes down to ensuring that the right methodology is suggested and is analysed to meet those.

HON ROGER SOWRY: I just want to come back, sorry, on your, the plus or minus 3.4% because to the question from Carl, you didn't - I'm just trying to get a comparator between that and what you deal with in energy prices in terms of volatility?

JEREMY STEVENSON-WRIGHT: Sure. Well, I suppose if we're basing this on the methodology as originally proposed you're looking at a 4% volatility on a monthly basis. So, whereas I suppose our current - I, off the top of my head don't know what the volatility is overall for pricing, but I do - I can tell you that the prices tend to fluctuate on an annual basis rather than on a monthly basis. So, it may be a combination of not just the quantum of volatility but also the frequency of volatility in the proposal that will actually affect consumers just as much. The inability to budget effectively for a small consumer might, a monthly volatility charge will probably make that very difficult.

ALAN EYES: Alan Eyes for New Zealand Steel. In terms of getting a methodology that's robust for the long-term, in our submission we've questioned the fact that there's a guaranteed revenue base for Transpower is something that needs to be fundamentally looked at. Now, I recognise that that might be outside the framework that you have been looking at, and perhaps you're legally able to look at, but when you've got flat and potentially reducing demand, to think that you can come up with a formula which is going to keep allocating costs against those that are left using the transmission network, and that that's going to be robust for the long-term, we submit is questionable.

RALPH MATTHES: Ralph Matthes from Major Electricity Users Group. Susan, just coming back to your question about regulatory risk. I don't think I necessarily see it as regulatory risk, I see it there are opportunities for - it's regulatory opportunism if you like. One of the fundamental issues that or material circumstances you identified was changes in technology, and I think we're going to see continuing changes in technology. And so I think as opportunities arise, TPM must adjust. It's inevitable, it has to. So, yeah, I think we're going to see a lot more of this process.

And it's not just technology in terms of more computing power so we can, for example, run SPD, or whatever variants you might have in the future, but I think there is also going to be regulatory innovation, the interface between the Commerce Commission and the Authority, I think we haven't seen the end of that debate either. So, it's just I think business as usual, regulatory risk or opportunism.

ELENA TROUT: Any further questions; you want to make another statement about regulatory risk?

NICK WILSON: Not about regulatory risk. It's an observation on the discussion that was had there. I think the Board, in the questions to Genesis, the Board seemed to be interested to, or seemed to be painting a picture that perhaps the volatility is within normal bounds for a retailer and actually potentially even insignificant at a retail level.

My question, my observation there is that if that is true, then what incentive, if there is - if these prices are immaterial, then what incentive do will our businesses have to scrutinise transmission investments? Because you've indicated that those charges should be set at a level whereby they should be material to our business, enough for us to get into the room and say to the Commerce Commission, don't build it there, don't build it like that. So, if you’re we're actually saying the volatility is within normal bounds and we can manage it and that there's actually going to be no impact on our business such as we even care about transmission pricing, isn't that a failure of the mechanism?

HON ROGER SOWRY: I don't think we're saying that.

NICK WILSON: Okay, fair enough.

CHAIR: You don't think the level is of material interest to your organisation?

NICK WILSON: Well, that was the implication that you seemed to be saying.

CHAIR: Well, that's the implication of your statement. You're saying only volatility -

NICK WILSON: What you just said was-

HON ROGER SOWRY: I'm talking about the relativity. Your businesses manage significant movements in energy prices and the question was, how does - the question is the relativity between that and the range of movement that you may well see with the proposed model. And Genesis have got a plus or minus 3.4% in their submission, as far as I'm aware no-one cross-submitted to say that was wrong and or commented on it. So, the issue there is how is that, how relative is that compared to what you're managing in daily spot price movement?

NICK WILSON: Sure, and my only point was to say if it is a managed cost, it simply gets passed through, then that seems to be very similar to current arrangements that we have now.

PETER CALDERWOOD: Peter Calderwood, TrustPower again. I'd just make a comment on - there's two points there, one is the question around the long-term stability and sustainability of a transmission pricing. We absolutely agree, if you end up with a long, a pricing methodology which is sustainable and meets the statutory objective and it will last the distance, that that is the right place to be. We don't accept that the proposal put forward meets that, and I think that one of the tests, and I know this is not a democracy, but I think the level of opposition does demonstrate that there is not support from the - and I mean the industry in the widest term - in general, about what is being proposed, and I think by definition that won't be sustainable.

I think the second thing is, just coming back to the volatility and I have made this comment before at some of the other meetings before, I think we need to look very carefully. There is a big difference between the volatility within the energy market and the volatility that will come out of this proposed transmission pricing. The energy market has natural counter-parties that can do financial instruments to risk, mitigate your risk across that, and so any responsible participant will have eliminated a lot of their risk through financial instruments. We struggle to see how those same sort of financial instruments will come out of the volatility in the transmission market, because there are no natural counter-parties in that space.

ELENA TROUT: Thank you. Contact, final question.

CATHERINE THOMPSON: Catherine Thompson, Contact Energy. Just in relation to the ability for the TPM to evolve, one thing we haven't acknowledged is the regulatory risk that the sector and the Authority are now faced with in the political announcements that have been made. So, whatever does come out of this process needs to acknowledge that the world's not going to stay the same.

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ELENA TROUT: Thank you. I would like to move to my next set of questions. So, I invite Genesis; Vector to the table - thank you participants; and DEUN, I think that we've lost DEUN. DEUN has moved out. Thank you, my next set of questions are around the decision-making and economic framework and as you're all aware we released a document outlining the decision-making and economic framework that will underpin the transmission pricing process that we were establishing.

So, in regard to Genesis, in your submission you said that the framework, while useful, is not effective to guide participants and the Authority through the different options within the hierarchy, and you recommended that an assessment be developed.

Can you just explain how that would evolve and would it fit into the framework, or would be part of or separate to?

JEREMY STEVENSON-WRIGHT: Jeremy Stevenson-Wright for Genesis Energy. In some ways my response is very similar to the response you've already heard from MRP, where I think there was a similar question asked but asked around the questioning around additional, I suppose, principles that could be applied around the decision-making within the hierarchy, and that's primarily what our suggestion is around, but it's a little bit more detailed in suggesting that we need to see some clarity, or not clarity sorry, but the Authority needs to, or could, or should establish some clear criteria that would enable them to choose between the different levels of the hierarchy that have been, that has been approved and the Authority is currently using.

So, for example, at the moment we don't see a clear methodology that would enable the Authority to decide between one beneficiary pays approach versus another beneficiary pays approach, or to assess whether or not the beneficiary pays approach is actually not quite as, it doesn't have as many benefits or has more dis-benefits than the, say, a lower level approach which may involve a more taxation or a residual charge approach.

So, it's I think saying that the framework is good in establishing a very high level approach; these are the preferred levels that we would like to see, but we think a further level of criteria is required to be able to distinguish what the best actual option is, taking into account within that framework.

ELENA TROUT: Thank you. Vector, you suggest the Authority, aside from adhering to the framework, still needs to demonstrate that the proposal's in the long-term benefits of the consumers. I believe it was in your cross-submission to us. Do you consider that in being guided by the framework the Authority could come to some decisions that are not in the long-term benefit of the consumers, and I would appreciate if that's the case you would give us examples?

ROBERT ALLEN: Rob Allen, Vector. The short answer is yes, and that was reflected in our submission at the time on the decision-making framework, where we said that regardless of what the decision-making framework says, you still need to demonstrate that the proposal deals with identified market failure and is in the long-term benefit of end users. If the decision-making framework was adequate to determine that something was in the long-term interest of end users, there would be no need to do a cost benefit analysis, or any analysis, beyond determining which option best satisfied the decision-making framework, and I don't think anyone is proposing that, including the Electricity Authority.

ELENA TROUT: Any questions from the Board? Management?

DAVID BULL: I have a question going back to Genesis. So, in addition to the framework for this particular problem we also have a general decision-making framework for Code changes which, and they're down at number 6, I can't remember the exact order, but for instance has simplicity as a criteria. So you're suggesting that there is something needed other than that?

JEREMY STEVENSON-WRIGHT: Yes. I think ideally to get a robust solution that gets the best result for the sector and for consumers on this, I do think that a further level of thought needs to be given as to specific criteria for this particular problem. That kind of aligns with the approach taken with the framework in itself.

DAVID BULL: So, do you have any suggestions what criteria should, for instance, be added to the decision-making?

JEREMY STEVENSON-WRIGHT: I think earlier discussion talked about the PJM approach in terms of the criteria that they have taken - was it PJM? And we have outlined in our Executive Summary some general principles. Now, many of those may align with the framework in the current Code, in terms of the Code change requirements, however I do think they need to be tailored to this particular problem, and I might pass over to Alex just in terms of the CBA because I think there is some crossover there between what the cost benefit criteria assessment looks like and how these principles interact with that.

ALEX SUNDAKOV: Thanks very much. Alex Sundakov, Castalia. I think that, I guess the way we see it is that you need to get a much tighter integration between the framework and the cost benefit analysis. Because while the framework in itself is useful and interesting, it clearly is operated at a level of distraction where it is actually quite difficult to rank proposals. You know, if you think of the framework as say ranking approaches from market to administrative, along that range. Just because a proposal happens to be more market-like and less administrative, doesn't necessarily make it better because it may come at such a cost of unintended consequences and other impacts, that actually a market-like solution may in some circumstances be worse than an administrative solution. That's precisely why in some cases we have administrative solutions rather than market-like solutions. So, by tightly integrating that logical framework with a cost benefit analysis and then of course also that anticipates a later session, but it leads you to sort of figuring out how you structure the cost benefit analysis at a more detailed level but by tightly integrating the two I think you're much more likely to arrive at a sensible overall evaluation and I think as has been said, in the absence of that integration there's much more risk of coming to a decision that's not in the long-run interest of consumers.

DAVID BULL: So, for me that helpfully clarifies your submissions. So, thank you.

ALISTAIR DIXON: I just have another question for Genesis. So, are you suggesting that it's necessary to sort of in an identifying a preferred option, to do a quantitative CBA of all potential options, or what exactly are you suggesting there? I mean, if we - you'll recall in the paper that there was a qualitative cost benefit analysis of a range of possible options, and that was a way of, sort of, basically identifying between the various options within a particular category in the framework of where we might head, but are you suggesting that we need to do something more than that?

ALEX SUNDAKOV: I think our first point is that you need to do the quantitative CBA at a much more detailed bottom-up level. That, you know, you can't just simply say, well, you know here are a bunch of options but we're already assessing them at a very very high level, we're not able to distinguish between components of those options. That's I think one element.

And then clearly in terms of when considering which options to compare, I mean one shouldn't go crazy because there's an infinite number of options but it's identifying kind of archetypes, and being able to compare them at a sufficient level of detail.

ELENA TROUT: I have one further question and it's to Vector. You noted if the Authority wants to send dynamically efficient pricing signals, they need to reflect the long-run costs that network usage imposes. So, I would like to have an example of that in relation to the exacerbator-pays process. You talked about externalities should be treated as an example of exacerbator pays; can you give me an example of that?

ROBERT ALLEN: Rob Allen, Vector again. The example we used in our submissions was the situation where someone consumes electricity during the peak period and the SPD method half hourly cap meant that the price that that person was paying was capped at the average cost even though their usage during that time might be driving the need for capacity expansion. So, in that situation the SPD method isn't sending a dynamically efficient signal, that it would be better to consume electricity smoothly over the year, rather it's saying, if you consume it all in one go at a peak period, you'll get a severely capped and subsidised price. That would not be dynamically efficient and would probably be sending the opposite signal about peak usage than you would expect.

ELENA TROUT: Any questions from my colleagues?

DAVID BULL: So, can I take it from that, that you're actually arguing for volatility?

ROBERT ALLEN: No, there's any number of ways that you can price for peak periods. It doesn't necessarily need to be a volatile mechanism, but that's not something that we considered particularly in our submission.

CHAIR: Well, again, I invite people from the floor if they have any comments on the responses that have been given. We've got ten minutes to go till lunch, otherwise we'll have an early lunch.

ELENA TROUT: For the sake of the record I'll read the question that I was going to pose to DEUN since DEUN is not here.

You suggested that TPM should be an exacerbator-pays regime. What should be the structure of such a regime and, in particular, what assets would be covered by that particular pay regime and how would it work? Thank you.

CHAIR: Is there anybody else who wants to comment on the economic framework, decision framework? It appears not. We will resume on the dot at 12.40. Thank you very much. At 12.40 we're on to problem definition which Susan will lead.

(Conference adjourned from 11.55 a.m. until 12.44 p.m.)

CHAIR: Ladies and gentlemen, I see the ranks have thinned. Either lunch is taking longer or we are down to the hard core people in terms of this. Before we start this afternoon's session which is going to be led by Susan for the first bit, and then Roger, we, the legal eagles have pointed out that I should clarify that while I said at the opening that we're not looking for cross-submissions or for new material in submissions, that was about an intention that you not come along and decide that you're going to present a whole new submission, or come along with a presented statement about cross-submissions from somebody else, but it wasn't intended to cut across the possibilities of people commenting on other people's replies, or replying in response, or indeed for people to consider new issues that they may not have considered or to even be asked about that.

The purpose of the conference is set out on the web page, and as I said at the beginning, it is really to help the Board to advance its understanding of the key points of difference between submitters, and to explore issues that have arisen in its preliminary analysis of those submissions. And feedback from the Board is we actually found this morning's session very useful and we're appreciative of that, and we were particularly appreciative of the interplay, and the way that people actually also were willing to comment on issues and volunteer their comments on issues, as well as answer the questions.

So, with those preliminary comments I'll hand over to Susan who will Chair the next session.

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SUSAN PATERSON: Good afternoon, everybody. Just to allow people to come up to the front table, I have questions for Mighty River Power; Employers & Manufacturers Association (Northern); Transpower; Vector; DEUN and Pacific Aluminium. I do have some other questions that I might throw open to the floor as well but those are the ones initially, please.

CHAIR: Is there something significant? You've all gone to the Left Wing. Molly's gone to the right. We're appreciative of your balancing, Molly. You were missed in the last session.

MOLLY MELHUISH: Not centre right, far right.

CHAIR: You'll be joining the National Front next, Molly, but I notice from the perspective of the audience you're on the left.

MOLLY MELHUISH: That might be an important difference.

CHAIR: Could be. Touche.

SUSAN PATERSON: Around the problem definition, the Authority identified several problems with the current charging arrangements for the HVDC interconnection and reactive support assets that are causing inefficient investment in the grid and inefficient use of the grid. The Authority identified minor issues with the current charging arrangements for connection assets.

So, my first question was to Mighty River Power. You submitted that the Authority's analysis was not robust and the magnitude of the potential inefficiencies, if indeed they do exist, are not material enough to justify the complexity of the proposal, particularly given the significant distortions it will create that haven't been quantified. Was this a general comment that related to the entire proposal, or only aspects of it? Are you suggesting the problems identified should not be addressed even if they are causing efficiency costs of the magnitude suggested and lower options were found to address these problems?

NICK WILSON: Nick Wilson, Mighty River Power. I think probably the crux of our response to that point was around the analysis around the current inefficiencies with RCPD, in particular, and we just felt from the analysis that was provided it was difficult to derive kind of a firm view on the magnitude of that problem. I think it wasn't really clear to us what might be driving distributor responses and whether that was inefficient or not, and we felt that there was probably a bit of a deeper dive that needed to be done on understanding whether there were issues just outside of transmission pricing that might be driving distributor response. We're obviously not in a position to be able to comment on that, not being a distributor. I mean, we agreed that RCDP isn't linked actually to capacity so it could cause inefficiencies, but, you know, it's very difficult to quantify those inefficiencies. And initially we noticed there was a bit of a double-counting error as well which was rectified in the analysis, but, I mean, that was quite significant. There was 67 million that was sort of double-counted there at one stage which painted a slightly different picture, and that was resolved by the Authority later on when it was picked up.

You know, RCPD is a difficult one. We see that there may be some issues but it doesn't appear obvious that there's been any loss of service or reliability from RCPD, and, you know, I sort of also note that given the - I think one thing I observed, and I would be interested in the Board's feedback as to whether we've got this correct, was the assessment that was made around the inefficiencies of RCPD seemed to be based on an analysis which said, if we take the investments that have been made and we are, we're able to apply beneficiary pays approach, not saying your approach but any charge that identified beneficiaries, if we could produce, and the analysis that was done we sort of said, if we can reduce costs by say, 10% or defer an investment by five years, those are benefits that would accrue that didn’t, don’t currently accrue under the current arrangements and that was the basis with my understanding for saying that there’s an inefficiencies.

Now, the problem we have with that is that inherently in the grid assessment process alternatives would have been considered for these investments. In my view, therefore, you can't really just say the inefficiencies that exist are simply the positive benefits that might accrue from the beneficiary pays approach. Now, apologies if that's not the way the analysis was done, I would be interested to hear your views, but our headline view is just that there needed to be a bit more of a robust analysis of proving why RCDP proves to be a problem.

We also note that despite concerns that RCPD might be inefficient, that mechanism is still going to be retained for the vast majority of allocating the residual charge and potentially uses the basis for a mechanism to allocate generation charges as well, which would seem to be slightly counter-intuitive. If you do think there are genuine concerns with it, then why would we retain it for, for the other proposal.

SUSAN PATERSON: Thank you. Thank you for that.

Have we got Employers And Manufacturers (Northern) here? No, we haven't. So, if I just run through the question that we had for them. Given the Authority's analysis of inefficiencies delivered under the regime and the concerns of some stakeholders with the existing regime, please could they clarify what, why they think there is nothing much wrong with the existing transmission pricing system, and no real urgency to change it?

Then the second question to them was, would your view be different if you knew, for example, that in ten years' time utilisation of the large recent investments would still be substantially below their capacity?

So, that was the questions that I had for those two.

Those were the questions, I guess, around the sort of general part of the question around problem definition. If I move on next to issues specifically relating to connection, charging for connection assets.

Eight parties agreed there was a problem with inefficient outcomes of timing, timing of connection asset replacement, and my first question was to Transpower. Who have we got from Transpower?

You submitted that there was no potential for inefficient outcomes to arise and there hasn't been a problem in practice with customers inefficiently avoiding customer investment contract charges. Can you explain how the current practice of pooling the connection costs and charging connection customers on a service basis promotes efficiency?

ROSS PARRY: Ross Parry, Transpower. Probably the first place to start is to just recognise that there is an error in the consultation paper, a factual error in terms of understanding how that pooling works. So, there seems to be an understanding in the consultation paper that the connection pool doesn't recover all of the asset.

ELENA TROUT: Could you please speak up?

ROSS PARRY: Yeah, okay. There seems to be a perception expressed in the consultation paper that the connection pool doesn't recover all of the asset-related costs of the connection assets and that's incorrect. So, there's not a shifting, if you like, from connection assets being recovered by the connection pool.

In the absence of that identified problem there wasn't really anything else in there that suggested a particular problem with the connection charging regime. There's a description of a couple of instances where Transpower's been in negotiations with contracted parties, customers, about the timing and nature of various upgrades, and I think what you see expressed there is the sort of commercial negotiation, or discussion that you go through as you're thinking about the options and the timing and the structure of an investment. In the two cases that are identified, and one we ended up with, you know, what I think everyone would think is the right outcome. In the other case it's still, nothing's happened yet, so there's no actual instances, I suppose, of, that have been identified of the wrong outcome occurring due to the current arrangements.

SUSAN PATERSON: If I just quote a little bit from Meridian's submission. They consider there are two additional problems with the current connection charging arrangements.

Firstly, the current mechanism is very opaque and it's actually hard to track costs from specific assets through to charges. The translation between actual assets to ODV (optimised deprival value) building blocks and then to the asset values attributed to the building blocks, are all subject to undocumented variances. There appears to be no standardisation of the process nor valuation. This makes the efficiency of the connection charge questionable. This would be straightforward to correct but would involve some transitional costs to implement.

And secondly they stated that there are also inefficiencies introduced due to injection customers facing the overhead charges on connection assets. With the proposed changes to the interconnection charge regime, the treatment of overhead charges should be improved by making it consistent between off-take and injection customers.

So, here I'm happy to invite cust-, happy to invite comments from any parties that would like to make comments on that point. Obviously, Ross, you might be the first?

ROSS PARRY: Yes, if I could start. Ross Parry Transpower. I think there's a couple of things that's worth, worth pointing out. One is in terms of historic valuations. It's true that our regulatory asset base at the moment is a mix of, has a mix of valuations and all of the legacy assets have gone through a process of sequence of regulatory determinations and changes of methodology. So at some point we put a stop to that and grandfathered in some values that had been arrived at through various methods.

From here on in it's really a gap based approach, the historic costs basis so the transparency I think is far better for the assets that are being touched or built or enhanced from here on in compared to the, if you like, legacy assets that were valued under a previous regime. So, I accept that that's, that’s you know, the nature of the beast.

In terms of transparency of the, for a customer like Meridian, of helping them understand the link between the assets that they have on the ground and how they think of those assets through to how they TPM allocate costs against those assets, we have been doing quite a bit of work recently to help Meridian to understand that. So we've been taking them through how the assets that they see on their terms translate through into the allocation that we use for TPM. So, I guess operationally we're taking steps to help address the concern that Meridian had there. I don't think that that's a framework concern particularly.

On the injection, I guess it would be interesting to hear more about what the specific concern is.

SUSAN PATERSON: Okay, so if I throw that open are there other people who might like to make a comment with regards to the points raised in the current charging for connection assets?

ERIK PYLE: Erik Pyle from the Wind Energy Association. Thank you very much for the opportunity to comment. Just to give you a little bit of background. We have a diverse membership, from many of the people in the room here to a number of people who aren't actually in the room, who are small players who are developing small proposals around New Zealand.

I think in terms of the problem definition, they're struggling to understand how the problem definition translates and the magnitude of the problem definition translates to some of the magnitude of the solutions, particularly in the embedded space, and I realise that we come to that on Friday. But for them, moving from a high degree of certainty at present, and these are small players and they appreciate certainty, and they don't have a large corporate backing to understand regulatory certainty risk and regulatory uncertainty, which I think is what we're really talking about here today which is different to risk, they've moved, they've seen themselves move from a high degree of certainty to a high degree of uncertainty and they don't understand the logic flow in the documents that have been produced to date to understand how they've got into that position, to the point where they, their bankers are saying to them, I'm sorry, we cannot understand the context well enough to consider lending you money, and that changed overnight for them.

So, in any, for subsequent work it would be great to see a very clear logic flow from the problem definition to the solutions that are being proposed, and many of my members don't understand and don't see that logic flow, so they don't understand how the solutions have been arrived at.

SUSAN PATERSON: Thank you for that. Any other comments? Board, do you have any other questions you wish to raise?

ELENA TROUT: Yes, could I just ask for a clarification from Transpower in regard to Meridian's additional issues that they identified with connection and interconnection.

The second issue that they raised was that there was an inconsistency between the off-take and injection customers in terms of the approach. Have I taken that, from your comments, that Meridian have got a wrong take on that problem, or is there an inconsistency and is Transpower doing anything about that, or - I just need some clarification on the discussions you're having with Meridian to help them understand, as opposed to a wider issue, and is there an underlying issue, particularly between off-take and interconnection? Thank you.

ROSS PARRY: The work we're doing with Meridian is not around that issue about the difference in how overhead and maintenance costs are allocated between injection and off-take. So, that's not the subject of what we've been talking about. So, I'm not clear what the nature of the concern is there. And also it's not a matter we've submitted on, so I'm personally not familiar with the rationale for the difference. I'm sure there are people in the room who are and could speak to it, if that would be helpful.

ELENA TROUT: Susan may like to convey what the second additional problem Meridian has identified in their submission there.

SUSAN PATERSON: May I ask Meridian to clarify for us the issue?

GILLIAN BLYTHE: Gillian Blythe, Meridian. In terms of the operational matter that Ross referred to,- I’m sorry Gillian Blythe, Meridian. I can confirm that we are having very useful conversations with Ross and his team on the first matter, and in terms of the second I'm not in a position to elaborate further but I will endeavour to come back with some more details later on.

SUSAN PATERSON: Were there any other people that wished to comment on -

ROSS WEENINK: Ross Weenink from Powerco. Just in relation to the interconnection, the injection overhead rate, I think the reason for that provision being in the TPM is that unless that charge were applied, generators wouldn't pick up any overhead charges at all because the overheads are otherwise recovered from the interconnection charge. That is just a point of clarification, really.

SUSAN PATERSON: Thank you. Are there any other Board Members that have any questions on connection charges?

HON ROGER SOWRY: I just want to - the eight parties, which was Contact, MEUG, Meridian, Norske Skog, NZ Steel, Orion, Pacific Aluminium, and Smart Power, so all of these parties commented that they thought that there was a problem with inefficient outcomes of timing of connection and asset replacement. So, I'm just wondering from them whether or not, given that they think there's a problem, whether or not the proposed model goes any way at all towards fixing that inefficient outcome and, if so, how far along the road does it go? (Pause).

CHAIR: Ross, in your letter which was essentially a cross-submission on the 28th of March 2013, at the bottom you've got a little formula for supposedly the allocations. Now, I've scratched my head for a while and I've come up with the view that it's probably missing a summation sign and a couple of brackets; three errors I make it. So 3:1 is the score for that? That's not the point I'm raising it, but is- have I got it right?

ROSS PARRY: I would like to see the version you're looking at. The first time I converted this from Microsoft Word to Acrobat, the, the, lack of functionality between Microsoft and Adobe, whether their hostility caused the

Sigma sign to be omitted from the equations. I re-submited -

CHAIR: The first I got had the scale of 1 because it was the same item on the top as the bottom.

ROSS PARRY: The version on your website has the Sigma sign so it has the correct - it has the summation.

CHAIR: I don't get things like that, I get the actual picture. Anyway, by the by, I eventually think I got to the bottom of it but the guts of it is actually the economics, not the formula. So, having understood that, right.

Essentially, if I understand it, for the pool-based approach for connection assets, that's not whether you've done it customer individual contract but the pool-based, what you take is what you think is for the capital component of the charge, what you think is the WACC that you need to apply, and apply that to the regulatory asset value of all connection assets, plus the depreciation on all connection assets, and then you scale to find for the individual connection asset, its ratio of the replacement cost of the total replacement costs of all the assets in the pool, is that correct?

ROSS PARRY: Correct.

CHAIR: Doesn't that lead to incentives of people to, in fact, try to take advantage of socialism, that is the pooling arrangement, spreading and averaging; doesn't it have incentives in there of people trying to do that? Because if you think that, if you think about it what you're going to say is if you get a new asset, you would actually prefer to pay on the basis of the average value of the pool, which is older than your new asset, right? It's not the depreciated replacement cost, it's the replacement cost that's the spanner. So, doesn't that provide incentives for people essentially to go to the pool rather than the individual contract?

ROSS PARRY: I think that presumes that people have a choice about going to the pool or the individual contract. I think you've got to overlay this, that we have a reliability standard that we're working to that governs the bulk of the end of life fleet replacement decisions, which is really what we're talking about. I think when somebody comes to us and says that they want to make an enhancement to the grid off their own bat, that they don't have access to the pool mechanism, if they're not, if it's not about meeting GRS. So, I think, you know you have to overlay the other regulatory factors here that people don't, if you like, waltz up to us with a choice about which method they would like.

I think the other point is that over time they ought to be relatively agnostic about which choice they have. While the pool certainly smooth’s things, they'll get a more lumpy charge profile over the life of the assets and their subsequent replacements if they're on an annuity basis.

CHAIR: I've always been suspicious about that rate shock argument. I've seen one or two airlines that have argued that you should pay well in advance of using an asset so you don't feel unhappy when the price goes up. So, you should pay higher - so anyway, I hear your answer. So, you think that that's successful, because I think that's the crux of the issue, isn't it?

ROSS PARRY: Yeah, yeah, and I think it was conscious - I wasn't around at the time, I'm sure there are others who could speak to it but I'm sure that was a conscious design choice around that smoothing for the pool-based assets and I suppose one of the nice things about that from an overall asset fleet management efficiency point of view is that you don't get a pricing interface when you're looking at most efficient deployments and redeployments of assets within your fleet. So, you get from a kind of grid asset management point of view an efficient flexible arrangement that produces the right kind of outcome in terms of pricing over the life of the fleet of assets.

CHAIR: But parties with new assets are not meeting the full costs and parties with old assets are being overcharged?

ROSS PARRY: There is a temporal element to that and so people are facing a smoothed price regard that doesn't reflect whether at the time their asset is newer or older for , for, GRS driven investment.

SUSAN PATERSON: Thank you, Ross. Do management have any further questions with regards to connection assets; Alistair?

ALISTAIR DIXON: Thank you. Ross Parry, I just wanted to just clarify with you, Ross, you said that there was a factual area, - factual error in the consultation paper in relation to connection, and could you just explain whereabouts in the consultation paper that the factual error was please?

ROSS PARRY: Possibly but you might just have to give me some time to identify it but there is, you know, essentially it says that there's a shifting of costs from the connection pool to the interconnection pool due to the allocation mechanism, and that's, that’s not correct. I think the misunderstanding was that there was an understanding in there that the replacement cost, this historic replacement cost actually set the size of the pool but it's really just an allocator. Certainly if the historic replacement cost set the size of the pool, then you would have an overlap, an overflow into the interconnection pool, but that's not how it works.

ALISTAIR DIXON: So, you provided the detail of this in your cross-submission, did you, or was it submission? Okay.

ROSS PARRY: (Nods).

SUSAN PATERSON: Thank you, if there's any further questions on that clarification, I'll let you take them up off line to make sure we do have that correct understanding. Thank you. If I move now to the HVDC link and the problem definition around that. Question directed, please, to Rob, Vector first.

You comment that Vector does not agree with the Authority's assessment of supposed problems with the current HVDC charges. The Authority's assessment draws on previous deficient work by TPAG you say. You place a lot of emphasis on locational signals in your submission and suggest that the work conducted for TPAG on this was inadequate. Are you suggesting that the Authority should redo this work, and, if so, what needs to be changed?

ROBERT ALLEN: We believe that the matter of the efficiency of the HVDC is something that needs further work on because it does send a locational signal that discourages South Island generation, and to us that's not a problem, it is only a problem if the signal that it sends is too strong a signal against South Island generation, ie if the price was higher than long-run marginal cost, and the analysis that's been done on the GEM analysis appears to take a static approach that assumes the transmission network is fixed, in which case the choice between South Island and North Island generation comes down to generation only costs. But our argument is that you should be overlaying that with potential transmission investment requirements on the HVDC.

The other point we'd make is that even if it is accepted that there is an efficiency cost of $30 million NPV, given the amount, the volume of money that is being recovered for that efficiency loss, it amounts to actually a very efficient tax, and if the Government had a form of tax that had such a small efficiency cost, it would be probably moving to increase the use of that tax, not to remove it.

SUSAN PATERSON: Just a supplementary question. Are you also suggesting the Authority should ignore problems identified such as the lack of incentive for South Island generation, or incentives provided by the HAMI for South Island generators to offer less than their capacity?

ROBERT ALLEN: We didn't get into the matter of capacity implications of the HAMI but would note that, as the Electricity Authority has pointed out, there is no perfect transmission pricing methodology. Any methodology is going to have problems.

So, two points I'd make is one, to consider whether the HVDC charge would be higher than you would expect for an efficient locational signal, and the second point to consider is given the issues around capacity incentives, to ask, is there a way of more efficiently charging South Island generators for the HVDC, and our submission doesn't form a view as to whether it is more efficient.

SUSAN PATERSON: Thank you, and if I can just- sorry, continue on. You also note that you consider the current HVDC charging regime reflects beneficiary pays, which was in your submission, page 20, and therefore shouldn't be changed. Would you continue to have this view if HVDC flows became predominantly southwards rather than northwards?

ROBERT ALLEN: What we've said about the beneficiary pays is that there's different forms of beneficiary pays and different degrees of sophistication to them. Having someone that benefits from the asset paying part of that cost of that asset is a form of beneficiary pays. There is a secondary question of what proportion of that cost they should pay, but our views on the HVDC don't hang on beneficiary pays, rather we'd say there's a number of, there's many arguments that you can use in support of the status quo, not the least that we haven't seen any evidence that a shift from the HVDC would actually be in the long-term benefit of consumers, which is why we haven't seen any consumers support a change to the HVDC charging. If it was in the long-term interests of consumers, I'd expect to see consumers supporting the change.

SUSAN PATERSON: Thank you. Molly, if I move across to DEUN, it's a good flow-on there. You indicate that the benefits of the HVDC to South Island generators are materially above the HVDC charge. Do you believe that they will be when pole 3 is commissioned and charged for on the same basis?

MOLLY MELHUISH: You're saying we said that the benefits are, to consumers are greater. Yes, because, in fact, the South Island generation, there's very little investment in it now, so that the expanded link will have more effect in allowing a southwards flow, I believe, than the northwards flow. This may change, of course, if Comalco progressively exits, in which case the ability of South Island generators to market in the North Island will be much greater, but I was putting together our thoughts before I put my head around the Comalco exit scenario.

SUSAN PATERSON: Thank you, and MRP, in your submission you note that the Authority's proposal is orders of magnitude more complex than the current arrangements and relies on highly technical quantitative modelling to derive the transmission charges. You say that there is a real and substantial prospect of that the proposal's inherent opaqueness and complexity will promote inefficiencies, increased risk and encourage disputes.

I guess my question is, is your judgement about the potential for dispute based on your assessment of how the Authority has proposed to apply aspects such as the SPD, and the RCPI charge, or is it as a result of concerns about these aspects regardless of how they're applied?

NICK WILSON: Nick Wilson, Mighty River Power. I think specifically it's around - I mean, if I outline our views around SPD, in particular, and various other aspects. I think what we were trying to argue there is that you will always have, the incentive to dispute the methodology will simply shift to people arguing around elements of how SPD might be calculated. So, for instance, how, over what period you might cap the charges. Likewise, for the residual charge, you will have, you know, you will have people, generators in particular, probably lobbying Transpower around how that charge, what regions it will be implemented over, over which peaks.

So, I think the- one of the Authority's main view seems to be, or the main benefit of moving to this type of arrangement will be that it will be the end of dispute and that we will have a stable regime that will be able to endure potentially forever.

I think all we were trying to articulate is that the design choices, many of them are untractable as well because what the Authority is trying to do is limit, for instance, on SPDs, limit the incentive that potential generators might face in that market. That will need to be traded off against other considerations in terms of how generators may, or how that shifts the beneficiary shares.

So, all I'm trying to say there is that claims of durability need to be considered against what incentives will participants actually face to question perhaps not the Authority but maybe other parties in the long run.

SUSAN PATERSON: So, you don't actually consider that the beneficiary pays is going to minimise the risk of disputes?

NICK WILSON: Look, not as it's currently proposed, no. I think there will always be disputes and I think that's going to be - given the amounts of, you know, the sums that are involved, I think there will always be incentives for people to try and dispute. Now, I think we said in our submission, a way in which you can try and minimise that is to try and base a methodology that is based in, you know, international practice and has strong principles based approach, and I think, you know, you've received feedback in the submissions along the lines in which that that could be achieved, so.

SUSAN PATERSON: Thanks. Yes, you actually favoured the TPAG majority proposal. Even though this would obviously involve simpler parameters, wouldn't the eventual substantial increases in charges for those paying the charges again lead to calls for fundamental changes to the TPM?

NICK WILSON: Look, I mean, our reason for supporting the TPAG majority view was simply that we felt that that was a proportionate response and obviously the benefits that we see over and above what the Authority has currently proposed is, we obviously have a much simpler and understandable, and if I go back again and I know - back to the PJM principles, we felt that those principles were best served by a TPAG majority view.

Now, over time incentives may shift towards wanting to change TPM but we think that those incentives will still exist under the model that you're proposing as well. So, we can't inherently see how one methodology will ever prevent any kind of disputes into the future.

There will always be incentive disputes. You can try and minimise them but we certainly don't feel that the mechanism we have on the table at the moment will be dispute free.

SUSAN PATERSON: And would you change that support of the TPAG majority proposal if that proposal was altered to apply to generators rather than load?

NICK WILSON: Altered to change to generators rather than load?

SUSAN PATERSON: The proposal --

NICK WILSON: Sure.

SUSAN PATERSON: -- the change moved to generators rather than load?

NICK WILSON: Well, that wouldn't be the TPAG majority view any more so I think the - and also I think as we outlined in our submission, there are - the reason why TPAG got to the conclusion that you would put those charges to load, was to avoid the types of distortions that we've all raised in our submissions that could potentially arise depending on how you decided to levy the charge. So, we see that there are more potential distortions from leading charges in generators and as a reason why we don't see from the analysis that we've done in our submission, that being a major feature of jurisdictions internationally.

So, it needs careful consideration, but obviously we supported the TPAG majority on the basis of what it proposed. And, in our submission we do articulate an alternative strawman proposition as well, but that would need to be - which involves what we believe to be the feedback you've received from the participants in terms of a modified version, but we do think that still needs to be considered within that net benefit framework before - along with all the other options, including retaining the status quo, I should add.

SUSAN PATERSON: Okay, thank you very much. Other directors on, this is around the HVDC part of the preliminary definition? Thanks, David.

DAVID BULL: There's various scenarios for the future, and obviously we don't know what's going to happen. One of them is that we see a continuation of the trend of less power going from South Island to North Island and we've certainly had some periods where there's been very considerable southward flow, and then it was mentioned as another possibility that Tiwai Smelter disappears and that obviously would lead to an increase of north flow.

So, I think one thing we've tried to do is create a structure and I know you have reservations, a structure that would endure through quite significant changes in power flow over time. Do you disagree with us trying to have a, an approach to pricing that deals with that potential future flexibility or change?

NICK WILSON: Nick Wilson, Mighty River Power. No, I mean in the ideal world that would be perfect, it's exactly what you would want. You know, I don't think anyone would refute that. We don't think that there - as the Authority's proposal is now, and the strawman that we mention in our cross-submission, I do think you could still get the flexibility by setting charges ex post and on an annual basis as well. That can still reflect changes in structure that might happen within your marketplace and give you some flexibility. So, I don't think it's a question of, are we opposed to being able to give flexibility, it's just whether or not - flexibility is one element of what you've got to consider across a whole range of design features of a TPM. It's a desirable one but the considerations need to be given to the practicality of being able to implement it. Whether or not we need to be able to determine transmission charges at the half hour level, as many people have commented, when there's a long lived asset, and it shifts, it actually fundamentally shifts the nature of the beneficiary shares as well. Again, that's going to be another area, fertile area for dispute no doubt.

DAVID BULL: So, I take it from that, you agree that we should be addressing the fundamental beneficiaries pays and that it might change significantly in the future?

NICK WILSON: Yeah, where it's pragmatic to do, certainly.

SUSAN PATERSON: Other Board Members?

CHAIR: Just you've raised the issue of distortionary impacts of whether transmission pricing methodology results in the charges falling, but if the charges end up being essentially on consumers, surely that's going to alter their views about the consumption of electricity a bit also. Even if it only is indirectly related to the sector which they're consume, they're still going to have that. So, what's led you to think that distortions on consumers is okay but distortions that might affect a generator, even from a charge that's only related as part of their benefit, are not okay?
This is new questions here

NICK WILSON: So, what I think we based our view on, and it's a view that's sort of - this is an issue I understand that's come up in some subsequent or previous reviews, I mean the general sort of sense seems to be from the literature that I've read, work done by NERA et cetera, that generally loads tends to be a lot less or, rather, are less sensitive to rises in transmission charges, and there are a range of other factors which will ultimately impact on where a load, for instance, decides to locate within the grid and that may be accessed to employment markets, to a whole range of other factors of which electricity pricing will be relatively low down.

In comparison, placing incentives on generators to pass through what is becoming, what is now a variable charge, their, the concerns that have been raised by many participants in response to the proposal is that there's uncertainty as to how much of those charges will be passed through and whether they'll be passed through at premium. So, it creates that uncertainty and I think it's that uncertainty that a lot of people have reacted to, whereas over time - whereas placing those incentives or those increased charges on to load seems to reduce those incentives.

CHAIR: Do you want to answer too, Ross?

ROSS PARRY: No, no.

SUSAN PATERSON: Do management have any further queries with regards to HVDC and problem definition?

BRUCE SMITH: Bruce Smith, Electricity Authority. A question to Mighty River Power. So, you had said that the complexity of the Authority's proposal would lead to disputation. I assume this is around SPD charge and the parameters and settings that go into that model. Could you please explain why your argument about disputation doesn't also apply to the current use of SPD in the wholesale market? It seems to me that probably five times the more value is traded through that use of the model than is proposed to be traded through the SPD charge.

NICK WILSON: Sorry, can you, can you just repeat the question? I just want to make sure I've got it correct.

BRUCE SMITH: So, you're saying there's the complexity of the SPD charge compared to the current transmission pricing regime, would lead to disputation argument about the use of the model, I assume parameters and settings that go into that model. My question is why your argument about that doesn't also apply to the wholesale market for electricity, which also is settled using that same model.

PHIL GIBSON: Phil Gibson, Mighty River. I'll have a go at this one. I think the SPD model for energy pricing dispatch reflects the, the grid and the dispatch of electricity for the one grid that is in existence today. So, we trade off, we trade across the grid as it is. Under the model proposed we would be arguing about whether or not the grid was the original grid or the grid with the future investments and the allocation of benefits over a hypothetical grid that no longer exists, and that the offer would be the same as it otherwise would have been.

BRUCE SMITH: Yet with a current design there is plenty of opportunity for you to dispute charges in the wholesale market. I haven't heard any disputes, for example, around the way Transpower sets transmission constraints, but for an arbitrary shift in a parameter, the rating of an existing asset, there could be many millions of dollars difference in settlement of the wholesale market. Why is that not under dispute?

PHIL GIBSON: Ah, don't know and I have no answer for why that is not in dispute, just that it isn't.

SUSAN PATERSON: Thank you very much. Yes, David, thank you.

DAVID BULL: This is for Vector and in the middle of Susan's question she reminded you that you were suggesting that you should ignore the problems of the current charging in the South Island, HAMI and so on.

ROBERT ALLEN: I didn't say they should be ignored, I said our submission didn't cover the matter -

DAVID BULL: Sorry? Speak up.

ROBERT ALLEN: Sorry, our submission didn't say that those problems should be ignored. What I said was that our submission didn't address the matter of HAMI specifically. There was a large number of issues in the consultation paper for us to address and we weren't able to address every single one.

DAVID BULL: Okay. So, you're not objecting to the fact that we're trying to address problems that we see on that?

ROBERT ALLEN: If there's a more efficient way of charging South Island generators for the HVDC, then that would be worth considering.

DAVID BULL: Okay, thank you.

SUSAN PATERSON: Thank you, David. If I move on just now to the problem definition around interconnection, and this is a question for Pacific Aluminium. Would you like to come forward. You submitted that the current interconnection charge is unacceptable and involves inefficient smearing of costs across consumers. How do you respond to the suggestion by some submitters that this is necessary to efficiently recover what they describe as sunk costs as this minimises distortion in the use of the grid?

RAY DEACON: Look - Ray Deacon, Pacific Aluminium. That's a static argument and it is not necessarily a dynamically efficient argument. The issue is, with so much investment that's gone into the grid for the benefit of both generators and load, yet all of the costs are being allocated to consumers, none of any interconnection costs are being allocated to generators, and it's this inefficiency that I think trumps that static efficiency loss through there might, may be some distortion in use of the grid.

SUSAN PATERSON: Thank you. Supplementary questions from anybody with regards to that?

ELENA TROUT: Would Meridian like to make a comment on the interconnection charges with regards to that question?

GUY WAIPARA: Guy Waipara from Meridian Energy. It would be a bit odd if we didn't have one comment to make on HVDC, so I'm going to segway into that. Yeah I know we are- I'm just using the opportunity as a - look, I think we've - and it will be clear in our submission, we agree with the problem definition that you've put forward, we agree that there's a dynamic efficiency problem, we agree that there's a static efficiency problem, and if you want to put it in simple terms because it’s often, there’s often a lot of highfalutin language, the way we like to think of it most is that for new investment, particularly in the South Island, if you've got a wind farm which is the same apples with apples with a wind farm in the North Island, then the current DC pricing which has doubled since pole 3 has come into effect is going to add about 20% more to costs of that wind farm. So, it's going to push all new South Island generation out of merit compared with North Island generation and we think that's the nub of the problem definition for the HVDC link.

We still agree that HAMI is a second order frame but it is a problem, and companies like ourselves put standing instructions in place to make sure that power stations aren't operated above a certain limit.

On the interconnection charge, this is - and Ray and I sat across TPAG and it's been debated a lot and there is a balance between static and dynamic efficiency. We do buy into the fact that more eyes on the future will deliver better results all round. So we do believe that there are some benefits in having increased scrutiny. But there is a trade-off to be made by how much of that cost you push through the wholesale market to be recovered through wholesale market prices, and striking that balance is a bit of a tricky one. We've submitted that you've probably got the balance slightly wrong but we still think there needs to be an apportionment of costs, both upstream and downstream.

ELENA TROUT: Thank you.

SUSAN PATERSON: Any other supplementary questions from the Board; Brent?

CHAIR: Yes, you'll probably think this question really odd, Ray, but it does have a purpose and that is, just imagine that Pacific Aluminium and its owners decided to abandon Tiwai, we're not talking about reality, we're just talking about a hypothetical situation. You've actually inside there, as I understand it, you have some grid equipment that's yours and some of it is Transpower's, is that correct.

RAY DEACON: Ray Deacon, Pacific Aluminium. Yes, in the sub-station we have - there's Transpower assets and our own assets in the sub-station.

CHAIR: But if you weren't able to sell Pacific Aluminium's plant to another aluminium party, what do you think you'd do with that equipment?

RAY DEACON: It would be sold as scrap.

CHAIR: As scrap or do you think some of it may have a useful life left in it?

RAY DEACON: Oh, yeah, certainly we would be able to - we would attempt to sell. In fact, there is quite a trade now in secondhand smelter parts.

CHAIR: Including the transmission bits?

RAY DEACON: Yes, yes, certainly the transformers, they would be assessed and -

CHAIR: And what would your expectations be about Transpower if they weren't subject to a rule that said that they can recover their costs whether it's used or useful or not, but they were actually only able to get a return on what was used and useful assets, what do you think they would do with their bit of the transmission line to Tiwai? Do you think they would leave it there or do you think they would look to sell it in the secondhand market?

RAY DEACON: Well, certainly if they were guaranteed a return on the asset, as long as the asset remains in situ -

CHAIR: But we're assuming they're not.

RAY DEACON: Okay, in which case they would definitely look to dispose of the assets.

CHAIR: And the secondhand market for things like lines and so forth?

RAY DEACON: Well, people keep cutting them down and rolling them up and sending them off to metal merchants, so yeah there is-

CHAIR: I've noticed that and I've noticed that when I got a distribution connection in the Wairarapa it was both secondhand poles and secondhand transformer that got put up the pole, but - so there's a second hand market for this.

RAY DEACON: Certainly -

CHAIR: So, that means by definition it's not sunk costs.

RAY DEACON: Well, certainly for transformers that's right.

CHAIR: I'll let you consult with your economic advisors but if there's an opportunity cost, it's not a sunk cost. Yet we've had huge numbers of submissions saying this is a sunk cost. It's clearly not, is it?

RAY DEACON: The transformers -

CHAIR: If you've got an alternative use?

RAY DEACON: The transformers where you've got a lot of value, you're quite right.

CHAIR: And even in the poles?

RAY DEACON: Look, I've never actually dismantled the transmission tower and tried to -

CHAIR: You don't need to, you just unbolt it from the bottom, don’t you, and pick it up with a helicopter.

So, maybe we should give Transpower the opportunity to ask whether they think there's a secondhand market for equipment that they weren't being paid whether they used it or didn't use it.

ROSS PARRY: There's certainly some salvage value to the materials that make up the network, obviously substantially less than the economic value that they're currently put to.

CHAIR: But there still is an opportunity cost of leaving a line in its current place if it's not a sunk cost.

ROSS PARRY: I'm not an economist. I assume it's like most things, it's an archetype, it's not a pure sunk cost, it's very sunk cost like.

SUSAN PATERSON: That sounded like an economist.

CHAIR: It's not a sunk cost. It's a fixed asset for sure, but it's not a sunk cost I think in a technical term. I've got definitions here if you wish to pursue them, but - so, Pacific Aluminium, you sort of talked about these being, the question of what they describe as sunk costs but clearly they are not sunk costs.

So, then the issue is what's the appropriate charge for something that's not a sunk cost, because the assumption is don't charge anything for it because you'll be charging a distortionary charge because it's a sunk cost. We have had no submissions from any party on that and it would be useful if we could get some. Yes?

BRUCE GIRDWOOD: Bruce Girdwood from Vector. Brent, I think in principle, in theory you're probably right in the sense that it does say, you know, if you were adhering straight to economic theory you would probably characterise these as fixed assets, but I kind of think of a fixed asset as being more like an aeroplane which you can move around the world and a sunk cost more like a hole in the ground, and my question is in practical terms of transmission assets more like a hole in the ground or more like a aeroplane, and that I think that's where we probably need to leave the comment.

CHAIR: That may be your perception but it's an empirical question.

ALEX SUNDAKOV: Perhaps to address that question, it may be useful to get a little bit more clarity of where you're going with this, and I suspect where you're going with this and tell me if I'm wrong, is that since most of these assets will have some residual value and, as you just demonstrated, exactly the same asset held by a private party may have different consequences than the same asset held by Transpower, shouldn't that go into pricing, but I think that that to me is a slightly misleading way of thinking about it because - and the reason why it's misleading is because it looks at that in isolation from the regulatory environment.

The critical point is that Transpower is regulated as a monopoly. It receives a WACC which remunerates Transpower for certain risks but not for other risks. So, Transpower is not remunerated for the risk of stranding assets. So, as a result the regime effectively says once investment is made and is approved, it's not going to get stranded, your WACC is set on the basis that you're not going to get asset stranded. As a result of that you have to take that into account. You can't look at the questions of what's sunk, what's not sunk, what's strandable, what's not strandable, in isolation from the regulatory environment.

CHAIR: So, in terms of that you're saying, it's the regulatory, the current regulatory environment means that there's no cost on the economy from treating these as sunk costs; is that what you're trying to say?

ALEX SUNDAKOV: No, what I'm saying is that within the context of the regulatory environment, once the investment is made it is truly sunk, it has to be paid for.

CHAIR: Yes, but it could be still transferred by Transpower, couldn't it, to a different location?

ALEX SUNDAKOV: Sure, and that's -

CHAIR: So it's not sunk cost to Transpower.

ALEX SUNDAKOV: I think it better goes back to the point that Ross made, that that's precisely why you want to have a regime that looks at the fleet of the assets rather than focuses specifically on recovery of individual assets in order to maximise the efficiency of fleet management. I think your earlier point was, well, is that fair because, you know, doesn't that mean that somebody who's getting an old asset is getting something different than somebody who's enjoying a new asset, but that's exactly what you get in any asset fleet management. When you get on a train in Wellington, if you happen to get on an old train you get a different service than if you happen to get on a new train but the pricing is set on the basis of the fleet, and is based, you know, I assume they tried to optimise the management of the fleet rather than the individual assets.

CHAIR: So, that's why in Japan old trains have different prices than new trains. So, when you get on an old train in Japan it does tend to be running on a regime of a different price structure which I discovered when I got on new trains and only paid old train price tickets. So anyway, it's just a matter of collection, is it?

SUSAN PATERSON: Thank you. So, just with regards to problem definition, do management have any further questions that they wish to raise on any of the discussions that have been had with regards to that?

BRUCE SMITH: Just one additional question. Bruce Smith, Electricity Authority. I think this question is directed to Transpower. So, in reading your submission I guess it's fairly critical of the Authority's proposal in many respects. In fact, I sort of get a feeling that Transpower thinks the Authority is at risk or at peril of making an incorrect decision around transmission pricing, and yet at the same time Transpower would seem to hold the view that every single investment decision made by the regulator has been correct. So, could you explain to me how you can hold both views with such servitude; that regulatory decisions around transmission investment tend to be correct, and decisions around transmission pricing can be at peril?

ROSS PARRY: That probably comes down to a question of the onus or the burden on the decision-maker as to evidence. So, I think what we're saying is not a defence that every single investment decision in retrospect has been perfect but that there's not much more in this, there's no sort of substantiation for the hypothetical proposition that we could take 20% of major investments and knock them back two years without any adverse consequences. I think, you know, we need to see some actual material, real evidence that there have been systematically incorrect decisions made on the investment side rather than just a sort of supposition that we could costlessly push 20% of investments back by a couple of years.

BRUCE SMITH: I mean, you're not suggesting that the Authority should go back and revisit the cost benefit analysis of every decision made by the Electricity Commission to decide whether there's a case that more efficient decision-making could be made in the future? That would be impractical and highly controversial, and probably not feasible.

ROSS PARRY: I mean, I guess it's up to you how you furnish the evidence but it does seem to me you ought to make an effort to substantiate the, or quantify the nature of the problem, and there's probably not a lot, I guess you read the paper and you don't come away with a really strong sort of, what's the word, causal analysis of the link between the problem that you're seeing and the benefits, the supposed problems and the supposed benefits I suppose, looking for more explanation of the nature of the intervention and how that's going to link to a different outcome, and there's not much exploration or exposition of that, or examination that would suggest the supposition that you could push 20% of projects back by a couple of years is right, not costlessly push them back a couple of years is right.

BRUCE SMITH: One approach for us would be to look at experiences with the HVDC decision versus other decisions, because there were deemed to be beneficiaries that were going to be paying for the investment, that's one approach. Another one is to look forward, I guess, and suppose a number of investments and look at the benefit of some deferral or cheaper options; is that the sort of analysis that you think we should look at?

ROSS PARRY: I think, you know, at one level, one of the propositions in here is that better engagement in the investment decision-making process on the whole ought to lead to better decisions and we don't particularly have a problem with that proposition. I think we welcome engagement in the investment decision around options and timing and the extent that people can bring new information to the process or challenge people's assumptions, that's all good.

I think the concern that we have would be two-fold. One, a general point that there's costs to change as well, so you need to know that the kind of quantum of the cost of the change that you're proposing is not larger than the quantum of the benefits you're going to get through this thing that is, that is good.

And two is the specific point, I suppose, that we have a concern that the complexity of this particular proposal means that the nature of the engagement that we will get in the investment decision process might be more intense, but it's not necessarily going to be better quality. So, if we've got a whole lot of pricing motivated and engagement in investment decisions, it's not necessarily going to help the Commerce Commission's position, because it's quite - one, it's quite difficult for anybody to unpick the motivations coming out of a multi-part very complex model-driven pricing regime; and two, the nature of the regulatory test that the Commerce Commission is trying to apply is different from the commercial assessment that the parties who might be submitting are making.

HON ROGER SOWRY: So, if I'm hearing you right, your concern is that the model will encourage participants to argue against investment decisions?

ROSS PARRY: Or the other way as well. I mean, most likely against it but they could go either way, or for a particular option over another option because of the impact on the flow of charges.

HON ROGER SOWRY: Whereas at the moment, at the moment about eight of them said you've made decisions that they thought were inefficient, I think it was said, was the words from memory, and so, but they haven't been able to have, effectively haven't had an effective say on that at the moment.

ROSS PARRY: I guess I came away from reading the submissions thinking there was a pleasing level of endorsement for the overall efficiency of decision-making around grid investment.

HON ROGER SOWRY: Must have read a different piece of the submission than I did. You'd probably take that from today on the fact that none of the eight would comment on the inefficient outcomes.

CHAIR: ..Ray wasn't here but the invitation went out.

SUSAN PATERSON: Thank you. Chair, do you want to open it up for any final comments on problem definition --

CHAIR: Yes.

SUSAN PATERSON: -- if anybody wishes to raise that, because otherwise I think we've finished that part and happy to actually move on to what some of the alternatives are.

So, are there any final issues people would like to raise with regards to problem definition? Thank you.

DAVID REEVE: David Reeve for Reunion. Just I think might help for clarity, addressing an earlier point by Bruce, currently there may not be much dispute about security constraints and transmission constraint effects in the market but historically there have been an enormous amount of discussion and argument about the application of security constraints, the change to things like SET, the application of N-1 and the relaxation of it, including raw changes in some different arrangements. So, it may be stable at the moment but historically it has actually been contentious.

PHIL GIBSON: Including one UTS that was accepted and three that have failed.

HON ROGER SOWRY: Yes, UTS was the other one I was going to add into that one.

SUSAN PATERSON: Thank you very much everybody for input on that section.

CHAIR: Thanks Susan, the next section is on alternatives and this will be chaired by the Honourable Roger Sowry.

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HON ROGER SOWRY: All right, I've got just Transpower and Pacific Aluminium please for the table.

So, if we can start with a bit of background. So, the consultation paper did consider various alternative methods of establishing charges to recover transmission costs, including market and market like approaches, beneficiary pay approaches, and other alternative approaches. The Authority's assessment, as laid out in the paper, was that the alternative options could not be preferred because they were either one or more of the following: They were either not lawful; not practicable; delivered a lower net benefit; or would not facilitate efficient investment in the industry or efficient operation of the grid, or the generation, distribution or demand-side management.

We had a number of submissions on that and my first question is to Transpower. On page 3 of your submission you make the case that a one-off assessment of beneficiaries would be preferable to the half hourly assessment, and I think we've had others who actually alluded to that already this morning as well. The question is, how do you consider the costs should be allocated where either a recognised beneficiary exits the market or where there's a merger between a current beneficiary and a non-beneficiary, or where there is a new player who enters the market?

ROSS PARRY: All good design questions to think about as you progress through options, I think. You know, at a high level I can say there's always difficulty around whether you're targeting a legal entity or a geographic location then certainly you could have more stability if you're targeting a geographic location rather than a legal entity. That would address at least two of your three questions there. But, naturally, I think the TPAG and others have considered various incentive-free arrangements, and other arrangements, that attempt to sort of lock an allocation for beneficiaries in place for a period of time. So, there are ways and means but that's certainly one of the, of the countering weaknesses of an approach of that nature.

HON ROGER SOWRY: Okay. How would you design a one-off beneficiaries pay assessment?

ROSS PARRY: I would just go with a postage stamp and ask SPD myself but I think if you're looking to do something that uses the SPD-type principle, again, lots of ways and means of doing it. I think you've got challenges around how often you repeat the process, just kind of comes back to some of the earlier discussion. I think your question about durability and the ability to be flexible over time and adjust to changing conditions. I think really what you're speaking to there is a sort of, an enduring change in the underlying structure of the market or the industry, is what you're trying to adapt for. That's I think what you're trying to get.

At the other end we try to adapt for sort of half hourly variations in power flows. That's the wrong time scale I think for what you're trying to deal with in terms of durability. So it's a matter of selecting I guess both an assessment period and sort of a period around reassessment that matches somehow the kind of underlying issue you've got about sort of over time, I don't know, maybe it's decades or maybe it's tens of years whilst an enduring flow from south to north might one day become not. So, I mean that's goes to, if you're just going to pick a year and analyse that, of course you're going to take a snapshot that pictures - that captures particular seasonal effects around hydrology and temperature, so that might push you towards a sort of longer timeframe, but then you've got issues around the participants have moved. So, another way would be to use some sort of synthetic approach but, you know, rather than a real hydrology or real offers.

So, I think there's all kinds of design choices you could make in coming up with an option that was sort of a periodic reassessment of beneficiaries, but now there's a whole options paper in there itself.

HON ROGER SOWRY: So how-, just thinking about that, how flexible do you think the system should be to allow for those sorts of changes? So, you know, something - you know, if you even took what you described as a synthetic approach and you said well, okay, here it is, this is it, we've taken this over a number of years, here's how the costs fall, and then suddenly you wake up and something's happened, the circumstances have changed, you know, maybe quite quickly, you know, the Aluminium Smelter says right, we're out of here. You know, would you envisage a system just sort of trundling on, ignorant of that for a while, or would you say well, actually no, we're going to have a system that's designed that we can trigger - that something triggers a change, and then how- where do you put the trigger I guess?

ROSS PARRY: Yeah, though I guess there's a parallel in the regulatory regime we face, you know, for our regulation where as a base point we have a five year sort of reopen assessment period where we relook at capex and opex efficiency, but there are provisions to reopen for particularly exceptional changes in the underlying conditions, if you like, so catastrophic events or a major regulatory change event can prompt a reopening of our price path. So, it would be analogous I would think that you might want to think about a threshold step change in demand, might prompt a reopening, but these are all sort of regulatory design questions. I'm more or less relaxed about those depending on whether you expect it to be us who makes the assessment or the regulator makes the assessment.

HON ROGER SOWRY: Well, I guess the issue is there's two risks to that. One, every time you reopen it there's a risk of a legal challenge; and, secondly, we've heard a lot today about the regulatory risk, have we- you know, designing a system that allows you to reopen it from time to time, what does that do to players who are nervous about the regulatory risk that they're carrying?

ROSS PARRY: Yep, so, so two things. You know, I think our preference would still be that a postage stamp approach actually kind of - and without a frequent reassessment of, like, the number of peaks in the regions for RCPD would be preferable. So, I guess we tend towards the relatively simple and enduring as being preferable, but I understand that the, you know, the Authority is concerned about responding or having something that has some flexibility to respond over time to those changes. I'm losing my train now but - so, there's been a trade-off there, isn't it?

So, I think the other point is, a lot of the discussion about regulatory risk and uncertainty is you've got to put that in context of a proposal in front of people that they're struggling to understand exactly what it's going to look like when it comes to a landing and exactly how it's going to operate and exactly how it's going to affect them. I think if you're looking about, if you're talking about a regime where you have the basic architecture of how it functions set, and all you're doing is periodically reapplying a known assessment technique, people can form their own view as they go along about what the outcome of that reassessment would be. So, it's a different nature of regulatory uncertainty. There's certainly regulatory risk around it but I think that's a tolerable - it's more towards the tolerable end of regulatory risk, that there is going to be a decision made every now and then that will shift value around, the people understand the rules of the game, know how it works. You know, that's a different kind of order of magnitude of risk, I think, from the, the angst that you see around this proposal at the moment.

HON ROGER SOWRY: Okay. To Pacific Aluminium, you favoured a capacity rights regime in your submission to recover the costs of both poles for the HVDC assets. So, the question firstly is, how would you suggest that a capacity rights regime would deal with market power issues?

RAY DEACON: Ray Deacon, Pacific Aluminium. Look, that was a detail that had to be worked through, so I don't have any firm views on that. Market power gets raised as a, as a block in just about every innovation in the electricity market and there does appear to be, for example, in the wholesale market some ability sometimes for people to exercise market power. The question is out about whether it's sufficiently detrimental to call into question the structure of the market. I'm confident that with appropriate market monitoring, that a regime like capacity rights could be developed such that market power could be identified and the regime modified to account for it and prevent its action in the future. That said, one wag did say, did say that the obvious party to exercise market power for a capacity rights regime was ourselves in order to collapse the price in the South Island wholesale electricity market.

HON ROGER SOWRY: Right. And the second question, what benefits would capacity rights over the HVDC deliver that the SPD method would not, and if the SPD method delivers the most benefits for the lowest costs, shouldn't it be the preferred method?

RAY DEACON: Look, the great advantage of the capacity rights model is it's a true market-based model, and as such the participants who are purchasing capacity rights reveal their true preferences. What we have is we have a whole lot of allegations of preferences but there's no truly revealed preferences as to amount they're willing to - it discovers the willingness to pay for access to that asset, and that's the important concept. And also, it's very very difficult to generate that sort of information in a network asset like a transmission grid. You can do it for connection assets because you can actually apply that same model to a connection asset and, again, so capacity rights for the HVDC would do that. In that regard it is likely to be much more efficient than the SPD. The SPD is an- takes an approximation to, to that. That said, the SPD model will reveal or provide some indication, I think, as to what the revealed preferences are of the parties who would want to have purchase capacity on the HVDC. But it's not as neat and not as clear as a capacity rights regime.

HON ROGER SOWRY: Okay. Any fellow Board Members, questions? No. Staff? Yes, Alistair.

ALISTAIR DIXON: Alistair Dixon from the Electricity Authority. Ross, I just had a question. You were suggesting that Transpower's preference was for postage stamps. So, are you suggesting that that preference is for, say, a beneficiaries pay based postage stamp, or are you saying your preference would be just to stick with the status quo; is that what you're suggesting there?

ROSS PARRY: Our first preference would be stability in sticking with the status quo.

ALISTAIR DIXON: So, can you explain why?

ROSS PARRY: Look, I think transmission pricing has, has all kinds of options that you could pursue and all of them will have faults and flaws, and that's the world we live in. There's a cost to changing from one mechanism to the other. So, I think unless you've discovered some new and compelling reason why you're on a demonstrably wrong bad option compared to the other bad options, then you're better to stick with what you have.

I think, you know, from a purely operational point of view as well, as the party that operates the TPM, it's easy to underestimate how complex even the very simple method that we have now is for the relatively, as I say, the sort of non-insider or non-industry participant players to understand. So, we spend a lot of - you know, we don't have a big team but we certainly spend a lot of time just working through the intricacies and details of how things work with participants whose day job isn't dealing with transmission pricing all the time. So, we have a relatively lean approach to transmission pricing now that operates fairly smoothly and effectively. We can certainly carry on making it better, but we're into change world, then we throw all that out the window and go back to trying to invent a new method, it's a lot of effort on the ground to make the change, because it's a lot of effort on the ground just to maintain what we have, which is a relatively simple version.

ALISTAIR DIXON: And I thought I heard you suggest that the RCPD approach was a form of beneficiaries pay, so could you just explain, if that was what you said, can you explain how?

ROSS PARRY: That wasn't what I said, I think what I just said, a preference in terms of stability is even when you come to the RCPD, to not seek to continually retune it, if you like, because the RCPD is trying to send some sort of locational signal over the top and you certainly could, for example post the North Island grid upgrade, say that you might want to de-tune the upper North Island signal a little bit, but I think my preference would be that if we have any sort of mechanism of that nature, that it's a mechanism that brings in, dials the tune up and down, as in terms of the number of peaks, up and down sort of slowly, cautiously, and deliberately rather than responding to step changes in the grid, just to give the commercial players at the other end who are equipping themselves to respond to this signal, time to, one, build the capability, and then, two, get a reasonable return off the capability they've built for a reasonable period of time. So, I think there’s- I guess all I'm saying is there is a real virtue in stability when it comes it transmission pricing, both operationally and in terms of people's ability to organise themselves to respond to the signal.

ELENA TROUT: So could I just ask a supplementary question to just make sure I've got your thinking correct and I heard correctly. Are you suggesting that operational efficiency, in terms of status quo, is more important to you than economic efficiency? Because you talked about the fact of status quo is better than making a change because of all the other issues; is that what I got from your discussion just then?

ROSS PARRY: Not if there's a clear-cut and, you know, material economic efficiency to be had. I think the precursors - where I started was, there's a lot of approaches to transmission pricing, they all have their flaws and we can debate around forever about which one is the ideal method. There isn't a perfect method so when we're choosing between these imperfect methods. Unless we're very clear that there is a very real and economic gain to be had, we ought to favour, we ought to put some weight on the benefit of stability and predictability, and people's ability to respond to a price signal that doesn't keep chopping and changing.

HON ROGER SOWRY: Does anyone else have any comments on this section? No, that's fine.

CHAIR: Nobody else wants to comment at all? We're slightly ahead of schedule.

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SIMON ORME: Hello, I'll just call out the people - I'll just introduce this session. Thank you very much, thank you.

CHAIR: Speak Slowly.

SIMON ORME: Thank you very much.

CHAIR: With a Christchurch accent.

SIMON ORME: With a Christchurch accent, yes. As you know, the discussion now is around Appendix F to last year's consultation paper, the cost benefit analysis. The October 2012 consultation paper reported the results of analysis of costs and benefits, the CBA, of the TPM proposal which is Appendix F. The Authority's preferred option was assessed to deliver $173.2 million in benefits, net benefits, over a 30 year forecast period relative to the status quo, and that was $123.9 million more in net benefits compared with a reform option supported by the TPAG majority.

So, the first question I have is to Castalia who is -wrote a report for, on behalf of Genesis, and if I could just really quote from that paper.

On page 11 of the Castalia report there was a statement there about, based on expense from working on a recent merger case, that you suggest that it is not useful to transpose the approach used in mergers to changes in regulation or market design, such as the TPM, dynamic efficiency estimates in the merger case attempt to quantify the effects from a loss of innovation that will occur due to the removal of a participant from the market. In contrast, the dynamic efficiency gains from the changing market of market setting, such as the TPM, come from providing signals to investors that guide them towards more optimal decisions on investment timing and location.

So, that's a quote from your paper. I just want to sort of, make sure I've understood the question first of all, the statement.

Is this suggesting that you consider transmission pricing reform is unlikely to promote competition and innovation, including in both the transmission and also the related upstream and downstream markets, and if so can you explain?

ALEX SUNDAKOV: I think that- Alex Sundakov, Castalia. I think what we were reacting to is an approach that takes some assumed efficiency benefit and then applies it to the size of the market, if you like, and we saw a parallel with the approach that's often used in mergers where, you know, you can start sort of, from a priori view that greater concentration could lead to less dynamic efficiency, less concentration could lead to more dynamic efficiency and since nobody can ever really measure dynamic efficiency, people apply some sort of percentage up or down as a result of that. And you can kind of see how in that setting it could make sense, although obviously it's a very very broad approximation.

Our concern was that applying what we saw as effectively applying the same logic here, really kind of zoomed through really the most interesting questions. Because, you know, if you start from the presumption this increases efficiency and then apply that efficiency factor to the turnover, of course you will get a large number, but it's that assumption about the increases in the dynamic efficiency that really needs to be tested.

BEN GERRITSEN: Ben Gerritsen, Castalia. Yeah, just to add to what Alex said, I think it you know, it's that fundamental difference in approach to a cost benefit analysis between the top-down approach, which the

Authority's proposal applied, and the bottom-up approach which we've attempted to apply in our, in our report for Genesis. And, so, I think in the context of merger discussions and applications, as Alex said, typically a top-down approach is appropriate, you generally know the direction in which you're heading and it's all about sort of applying an appropriate and believable factor for those efficiency gains.

But here, when we're talking about a regulatory change, we actually see the components of a bottom-up cost benefit analysis as being quite identifiable and quantifiable. So, you know, if you can identify where the discrete changes in dynamic efficiency might come from, and in this case we think that's mainly around investment decisions, the decisions to invest in transmission generation and load, then a better approach to cost benefit analysis is to quantify each of those sort of blocks to a bottom-up cost benefit analysis rather than adopting a top-down approach.

SIMON ORME: Thank you and I'll come back to that because obviously there are - you've made the statement that you prefer the bottom-up approach, and I’ll, there will be a question on that. But could you just go back and that's really the essence of your point, that really in the case of transmission pricing reform, you're suggesting that the dynamic efficiency factors, innovation, is inherently sort of a more noble quantifiable factor than it is in a merger situation?

ALEX SUNDAKOV: Well no, I think it's almost exactly the other way around. I think it's the point that you actually don't know what the outcome of the pricing regime is going to be until you work through it. You cannot jump to a presumption it's going to improve dynamic efficiency. You actually have to work through the detail and by breaking down the components you can answer the questions and see whether in some cases it maybe - as often happens with complex regimes, some elements of the change may be attributing, may be contributing to dynamic efficiency, others may be actually taking away from it, and it's really understanding those impacts that matters.

JOHN RAMPTON: Can I just test that out, Alex. John Rampton. So, you're saying in a mergers and acquisition approach, you start from the, a priori reasoning that that's going to be potentially detrimental to dynamic efficiency, so that's when it's appropriate to apply the factor but whereas in our case, because we don't have that a priori reasoning up front potentially, it's not so appropriate; is that the gist of your argument?

ALEX SUNDAKOV: I think it is, yes.

SIMON ORME: Okay. Thank you very much. Just moving on, then, just going to the next page of your submissions, page 12. You state that, while the impacts of less innovation cannot be estimated, bottom-up, the impacts of sub-optimal investment decisions are better suited to direct estimation.

So, this is the point that you just made, that the bottom-up estimates are better suited.

So, I just want to sort of tease it out. Does this suggest, is this the suggestion that sub-optimal investments, and I assume we're talking about transmission generation and also downstream, so across the three sort of dimensions, can be readily identified in advance?

BEN GERRITSEN: Ben Gerritsen, Castalia. So, just so I understand the question what you're asking is, is it possible to identify whether the future investments and generation transmission and load might be sub-optimal or might be different under different transmission pricing?

SIMON ORME: Yes. If you can do the bottom-up approach, is that what's being suggested? That it's a fairly noble sort of, what the, you know, I guess the dynamic efficiency losses are from really doing a sort of bottom-up building block, you know, a master model of the entire energy system?

ALEX SUNDAKOV: I think I understand the question, or correct me if I'm wrong and I don't understand the question, but I think, I think what you, I think the point we're making here is slightly different. I think the point is not that you can predict whether particular investments are going to be efficient or not, but I think what you can do is by focusing on the details of the proposed pricing regime figure out whether they're indeed going to lead to more efficient or less efficient investments. And, I think all we're saying is that by going to that bottom-up level of analysis, it actually forces you to ask some very hard questions about the pricing regime. I think a lot of the debate we've heard is about, if you apply the SPD model and you're applying it on an ex post basis, how will it impact ex post investment decisions?

Now, I think we happen to think that the application, the proposed application of the SPD model will make no positive impact on the ex-ante investment decisions, which is really the efficiency you're looking for, because you're applying it on an ex post basis. Others may disagree and that's a separate debate, but my point is that's exactly the kind of detailed analysis you have to go through before you can say oh, yes, there is going to be an efficiency enhancement.

BEN GERRITSEN: I think just to add to that, in lots of ways the problem definition that the Authority has done seeks to quantify the impacts of sub-optimal investment decisions and I think, you know, I guess I was a bit surprised that a similar approach had not been attempted under the proposal. There seemed to be a lot of detailed modelling that went into the problem definition and the discussions already today have raised a lot of the previous discussions from TPAG around optimal generational investment load decisions. So, I think it seems doable.

ALEX SUNDAKOV: Perhaps to add to that, I may be anticipating another question you'll ask, but you know, it did seem odd to us that kind of detailed optimisation modelling that was part of the problem definition that identified one number and effectively it said our counterfactual is some ideal efficiency that we can see from the model, which probably can never be reached in real world, but that's our counterfactual, and compared to that the current arrangements leaves about $98 million on the table, and then you go and do the cost benefit analysis in the proposal and somehow the net benefit is greater than what's on the table. So, it was kind of hard for us to see how the two could be reconciled.

SIMON ORME: Yeah, I just, I guess, well, just following on from that question, so why, why would a bottom-up, why do you think a bottom-up estimate focussing on investment timing and location, be superior, just pursuing this, be superior to the bottom, the top-down estimate that you've just described before?

ALEX SUNDAKOV: Oh, I mean I think for the very simple reason that you will not be starting with a presumption, because obviously you know, if you're starting with a presumption that the - in a sense the purpose - to my mind the purpose of a cost benefit analysis is to help in a decision rather than to justify a decision.

SIMON ORME: Yes.

ALEX SUNDAKOV: If you have a cost benefit analysis that is based on a presumption that the proposal is more efficient, then it ends up being nothing but a justification. It doesn't really help you in making the decision.

SIMON ORME: Okay, thank you.

JOHN RAMPTON: John Rampton here again. If you just ignore the sunk cost issue that was raised previously and think about the incentives - sorry, I'll can I start again. If you ignore the sunk cost issue and think it - I've just lost my train of thought, sorry. I was going to ask you a good question but I'll come back to it.

SIMON ORME: I'm just asking a question here, which is, one of the challenges with the bottom-up is, you know, what is the nature and direction source of innovation, I guess, the dynamic efficiency? As you know, it's notoriously difficult to model dynamic efficiency, which is probably why you know, in the merger cases, and so forth, the Commerce Commission takes that fairly abstract approach. So, can you just respond to how you know you might do that. If you're looking out 10-20 years, how do you go about the process of doing a bottom-up modelling of innovation given that innovation sort of by its very nature is unknowable?

ALEX SUNDAKOV: I mean, I think that - I mean I'm by no means discounting the difficulty of doing this. I think to me the advantage of a bottom-up process is that it actually forces you to start asking quite difficult questions that otherwise you just kind of float over. I mean I think you know kind of the first step would be to really to try to think through, what are the sources of innovation here and what are the sources of the dynamic efficiency that you're looking for. I mean clearly one of the things about transmission assets of any kind is that they're long-lived and that very much most of the efficiency gain you get is at the time when you make the investment decision. That's the dynamic you're really looking for. So, you then start kind of analysing I think in greater depth. Okay, so how is our proposal going to influence the decision around the time of the investment? And I think, as has already been said today, and as we said in our analysis, that has to be seen in the context of the remainder of the regulatory regime. And by thinking through that, you know, you start getting at some element of the truth. I'm not saying that it's going to be easy but I think at the very least you can start extracting those ideas.

JOHN RAMPTON: John Rampton. So, you're still going to be making difficult decisions about dynamic efficiency notwithstanding you're going through the bottom-up approach and so, for instance, the one case you talked about, you didn't have agreement with the Authority's contention with respect to the increased scrutiny that the SPD model put on the beneficiaries pay approach, so that's a good issue to discuss because you're still going to be left with those type of issues when you go through your approach -

ALEX SUNDAKOV: Absolutely but to me that's exactly what you're looking for, for the cost benefit analysis because by doing that you then zero in on those issues and then at the end of the day clearly the Authority will have to make the decision about how it sees it, but by thinking it through at that bottom-up level, it does, it shows you that the judgement about dynamic efficiency here very much relies on the judgement about the nature of the signal. And then you have - but that's why you have to - it's a separate debate about what the nature of the signal is, but in terms of how you apply it to the cost benefit analysis is precisely the fact that you're now beginning to zero in on those important elements.

BEN GERRITSEN: Just to add to that, Ben Gerritsen, Castalia I think other components of our work on this cost benefit analysis also inevitably have had to adopt parameters. You know, we say, look, there are some unintended consequences we think of the Authority's proposal for competition in the wholesale and retail market. Now, how do you model those in a cost benefit analysis? Again it's not easy, and you have to - but in a bottom-up analysis you actually have a bit more clarity on what specific changes in behaviour will drive changes in efficiency, and you can more directly kind of question and test the parameters that you use. So, for example, we adopt some assumptions around impacts on the wholesale market and prices in the wholesale market because we think it's likely that the proposal will change bidding strategies of generators, and the benefit of a bottom-up analysis is that people can directly debate, do we think that impact on wholesale prices is actually credible? What makes you think that the changes in behaviour you're positing from the proposal would actually lead to a change in prices of that order of magnitude? So, that's kind of a tractable debate you can have around that parameter of the cost benefit analysis.

I think with the top-down approach it's much more difficult because there's lots of different impacts and changes of behaviour going on, some of which are off-setting each other, that are sort of saying 0.3% of revenues doesn't lend itself to a constructive debate about, do I believe that; is that credible.

JOHN RAMPTON: Coming, Further following up on my question about the weight you gave to the beneficiaries being involved in the investment making decision process, you give no weight to that. Can you just explain why you do that, because it wasn't clear to me from your submission, particularly the second point, regarding that having under this current system more users in itself leads to more weight being given, as opposed to having a definitive set of beneficiaries under the SPD model?

BEN GERRITSEN: Ben Gerritsen, Castalia I think the point we were making in our paper was that that's a contention that's made by the Authority that underlies the 0.3% of revenues and kind of underlies the quantification of benefits, that these benefits come because you will get more constructive interaction in the process of transmission investment approvals.

Now, as Alex said, that seems to us to be the right place to look because that's where the efficiency impacts of transmission are decided, around that transmission investment approval process. However, I guess what we struggled to see was, given that that investment approval process is run by another regulator and is subject to a net market benefits test already, how this pricing methodology would actually change decisions within that regime. I think this goes back to a point that Ross made earlier and was discussing with Bruce. You know, what decisions would you expect to be different coming out of that process, and actually I think that would be a useful thing to know.

In terms of the mechanics of how we actually built up our bottom-up estimate, in lots of ways I think we were fairly - there are kind of lots of points that we could have challenged I think in our bottom-up approach. This we largely actually accepted the problem definition that the Authority proposed, you know, in terms of the efficiency loss of $98 million that Alex mentioned earlier, we didn't feel like we had any better modelling than what the team at the Electricity Authority had done around optimal investment and generation and transmission timing. So, in terms of how it actually flowed through to the analysis that we conducted, I think we did take that into account insofar as it was taken into account in the Authority's problem definition.

ALEX SUNDAKOV: Perhaps if I can just add to that, I think it's really I think useful analytically to separate the debate about the approach to cost benefit analysis versus the individual elements of the analysis, where one can agree or disagree. And so I kind of interpret your question – I think if I may interpret your question as dealing with the approach rather than with the content of the debate.

So, at that level I guess the question is, can you assess a top-down analysis by simply asking a very broad question about how will the behaviour change in the context of participation in the regulatory process built around GIT, as well as other factors, and get a sort of a number from that. And to me, that's precisely the sort of the comment on the difficulty of top-down methodology, because at that level of extraction it's really hard to assess anything.

SIMON ORME: Thank you very much. I'll just ask if the Board Members have questions?

CHAIR: Just a brief one. My conclusion from what I read of what you assessed, and this is on the actual details, was that you discounted any effect on Transpower's behaviour, that knowing that parties down the track are going to be charged on the basis of the benefits to them of different investments and hence will also be able to calculate the net benefit for various parties when they make their decisions, which is their decision whether to proceed with an investment or not, the decision of the Commerce Commission is it gives them an option. It doesn't give them an obligation to do it or the requirement to do it, it just gives them the option to do it if they wish to do. So, we know that the assessment, for example, of the HVDC link, said that the best assessment that was available at the time was that investment should be deferred some short while. You don't think that having this transmission pricing methodology, where it's clearly going to be influencing people and they are going to actually be able to quantify the numbers, is, will have an effect, because that's what you completely discounted on Transpower?

ALEX SUNDAKOV: I think - we're now moving beyond the cost benefit analysis framework and I'm getting into the detail of the conclusions, and that's where I think it really is very important to get to the heart of how the current regulatory environment operates and what really will change, and the debate around the grid investment test for various major grid upgrades, both the HVDC pole 3 and the Auckland upgrade, I mean shows that people participate very actively, but there was a debate about the timing and who was going to benefit, that Transpower was I think very aware of that debate, and within the context of the regulatory regime it was able to get an approval and go ahead with certain outcomes.

I guess given that background it's really hard to see what will change. I mean, clearly people have in the past argued quite actively about timing of investment and who's going to benefit and who's not going to benefit. That will not change. Not obvious to me that the nature of this regime will make such a big difference. But there is a further question to my mind because a lot of the way that the proposal operates isn't really about providing a lot of forward-looking information at the time when the investment decision is made, a lot of it, particularly the application of the SPD model, will emerge ex-ante in the future - sorry, ex post in the future, so you're really forcing people to kind of make an ex-ante guess about what the ex post application of the model will produce, and then modify their interaction with Transpower on the basis of that ex-ante guess, and it just seems to me that there are so many ifs and buts there that it is really hard to see a significant change in behaviour.

CHAIR: Well, that's clearly a matter of judgement which the Electricity Authority will have to exercise its judgement over. But also, just thinking about the concept of your cost benefit analysis, isn't it appropriate for the Authority to actually think about the probability that how it sets the transmission pricing methodology may actually alter the regulatory regime to which Transpower is subjected to? We've already had an appeal this morning which has clearly come out of the transmission pricing methodology from New Zealand Steel for a change of that regulatory regime. We actually have had - that's not the only party that's, we've had numerous parties who have made that same appeal to us as we have gone round. In fact, for a number of parties it's an issue that comes up before they even talk about volatility of the SPD or of the impacts on distributor generation, or whatnot.

So, in assessing a cost benefit analysis isn't it incumbent upon you to think about the likely dynamic changes that a change in methodology may actually have on the regulatory regime and what that may mean about the benefits, or do you just think you have to take the status quo on regulations as fixed as you were arguing my point about sunk costs?

ALEX SUNDAKOV: I think, I think it's entirely reasonable. You're saying is it incumbent on us. I guess I could ask, is it incumbent on you to do that, because that's exactly what was missing from the cost benefit analysis. I mean, I think it's entirely reasonable to ask the question, you know, to what extent could the new methodology lead to a change in the other elements of the regulatory regime in a way that would be different to other possible interventions, such as the EA making a submission to the Commerce Commission? That's an entirely reasonable question to ask and should be assessed in the cost benefit analysis. I guess our contention, very simply it wasn't.

ROBERT ALLEN: It might be a good question for the Commerce Commission, that if the EA makes this change do you anticipate that you will make changes to your operation of Part 4 of the Commerce Act?

ROSS PARRY: Can I just say, this seems to me very awkward for one regulator to quantify a benefit around another regulator stopping getting it so wrong.

CHAIR: You'll point out that I was very careful to note what the nature of the decision the Commerce Commission makes is. It's not invest, it's not go ahead and invest now, it's if you wish to and you judge that you want to do so, that you will be permitted to do so by us, in the sense that you are able to in fact recover under the transmission pricing methodology the charges, there is nothing stopping Transpower investing and hoping to be able to recover otherwise, or to reaching contractual arrangements with other parties. So, it is in fact a peculiar, a somewhat important, but it isn't actually a, the Commerce Commission has said, this is absolutely fantastic, do it now. It has said, we don't think that given the decision we're making that we should stop you doing it.

ROSS PARRY: I don't need to pursue this too far but that wasn't really my point. I suppose my point was if you're doing a bottom-up assessment and trying to quantify the sort of mechanisms by which you expect you to arrive at a better economic outcome, if one of those mechanisms is that you expect one of your fellow regulators to start making changes to their regime because the current regime is wrong, that does seem like a quite exogenous sort of thing for you to put into a TPM CBA.

SIMON ORME: Are there any other questions from the Authority?

ALISTAIR DIXON: I just had one question for Castalia. I was just interested that you chose to use the PWC estimate for costs of implementation of the proposal rather than the Authority's estimate or another estimate, and I just didn't see a rationale for why you had chosen that. I mean, obviously it's going to have an impact on the result but I wondered whether there was some other rationale?

BEN GERRITSEN: The only rationale for using that number was that we felt it was the best estimate available at the time we put together the cost benefit analysis. I mean, PWC, my understanding is that PWC know Transpower's business very well, know the processes in setting and administering transmission pricing very well, and that they would have better information on the costs of change and administering the proposed change than the Authority had in putting together its cost benefit analysis.

ALISTAIR DIXON: Okay. So, I mean I guess the question, you know, the Authority had done some analytical work on the development of, for example the SPD method. We had undertaken, you know, we have basically had commissioned similar pieces of work, for example development, say, something like the FTR regime, isn't that, isn’t something, couldn't something like that also help to inform costs, or should we just be saying, well, you know, Transpower is the party with the responsibility here so we should be relying on their costs? I mean, should we, wouldn’t - shouldn't the cost benefit analysis really be focusing on most efficient costs?

ALEX SUNDAKOV: Ross may be better placed to answer that question but it seemed to us that, I mean there’s a, there may be a distinction between sort of assumptions about efficiency and so you would expect some gap perhaps between the Authority's assessment and Transpower's assessment, but when the gap is so substantial it's, and knowing just from experience just how often it is that regulators underestimate the costs of the implementation of their systems and not really seeing very much incentive to dramatically overestimate, given that this estimate was prepared by the auditors, regulatory auditors, it seemed to us to be a better bet in this case.

ROSS PARRY: I'll just add that I mean the PWC work is work we commissioned because we thought it was helpful for everybody to get a better handle on costs. It's not, it’s not our figures. Certainly they talked to us to get an understanding of how the current processes worked so that they could build a sort of bottom-up estimate of how much it would cost to move to a regime like this. I think if we move on from here with some options that firm up exactly how the TPM would operate, that there would certainly be opportunity to refine those costs estimates. I think you know, as you progress through steps towards a more concrete proposal, you would certainly reduce the error bounds on the estimate of what the costs are.

SIMON ORME: Thank you very much. I'm going move on to a new set of questions. These ones are directed to Mighty River Power.

So, just going back to your submission. In paragraph 2.2.17 on page 34, I'll just briefly excerpt the relevant statement.

There was a statement that the Authority has misapplied the dynamic efficiency factor by applying it to the compounded growth sector revenue, ie total industry revenue, rather than as a simple reduction in total generation and transmission costs. So the portion of total industry revenue that relates to transmission and generation.

So, I just want to first of all make sure I understand. Is this based on a view that the effects of a move to more efficient transmission pricing would apply to, obviously to transmission itself, but to related upstream markets but not to related downstream markets; is that the basis for your position?

DAVID REEVE: The comment from you is probably taken from our cost benefit analysis. So, David Reeve, Reunion. I'll answer the question. It may have been an element of attempting to understand the Authority's rationale for applying the benefit in that way. Our thinking in terms of how a generation in investment efficiencies would accrue is they are not necessarily exclusively but most likely to be around the timing of investment and costs, and that would have some effect, therefore, on prices, but those prices, we were concerned that looking at prices as an efficiency benefit was more a transfer of wealth than an actual efficiency gain overall, and we were struggling to see how there could be compounding benefits over time.

SIMON ORME: In the downstream -

DAVID REEVE: In the downstream.

SIMON ORME: In the downstream markets?

DAVID REEVE: Yes. So, we saw them more as one-off benefits.

JOHN RAMPTON: John Rampton. Do you think it can have efficiency benefits in downstream markets like distributed generation distribution and even retail?

DAVID REEVE: Yes, I think it can, I think it can. Again, I'm not sure how the compounding effect, maybe one of the things that could be done is to explain how the compounding would work and your thinking on that.

JOHN RAMPTON: Okay.

SIMON ORME: I might just pursue that. I mean, I guess one of the things, this goes back to the point about no-one really quite knows what the source of the innovation might come from, but do you think it's possible that you might see significant innovation in the downstream markets? For example, micro distributed generation, dynamic pricing, the whole raft of, you know, demand side participation.

DAVID REEVE: Okay, sorry, now that makes more sense. Yes, definitely this it's possible and we weren't trying to say that the numbers that arrived out of the Authority's CBA weren't achievable, and possibly even higher, who knows, but our position is that while you can't be blind to the - to rapid changes in technology in any industry, historically electricity is relatively slow-moving in technological changes compared to others, for a couple of reasons; one - not so much in downstream markets I accept, but generally it's strongly bounded by physics, and the conversion technologies around that, but also it's fairly conservative because it's obviously - it's a conservative industry for good reasons, keeping reliance on reliability and, therefore, our view was that on balance you wouldn't expect a rapid change in downstream markets and that if you started to see that, then that would be something that you could respond to at the time.

SIMON ORME: So just to be clear, you do see it's possible that there could be some, that the more efficient transition pricing system could contribute to dynamic efficiency in downstream markets?

DAVID REEVE: It could do, yes.

SIMON ORME: Okay, thanks very much. Just, This is really a question about the timing, the time horizon, the forecast horizon for the CBA. You submit in paragraph 2.2.20 that the Commerce Commission seldom assesses dynamic efficiency changes over more than a 5 year period compared to the 30 years assumed in the CBA. I hope that's an accurate -

JOHN RAMPTON: Charges actually, not changes.

SIMON ORME: Sorry, I think it's charges, excuse me. No that's probably my typo. So, this seemed to imply that uncertainty about the possibility that more efficient transmission pricing would not produce the long-term benefits. In other words, are you suggesting that you know transmission pricing reform would produce sort of a one-off set of benefits you know, fairly ephemeral, you know for perhaps 5 years but then after 5 years they will sort of recede; is that the suggestion?

NICK WILSON: Nick Wilson, Mighty River Power. I'll have to answer that because David wasn't the consultant whose work this was based on, who provided this to us. Look, I will probably have to take that question a bit on notice and have a discussion with those consultants specifically but, I mean, my read of that line there is that it's simply very difficult to make those assessments over a long period of time. So, I don't know whether I can add much more to it than that, but certainly take it on notice to give you a more defined answer.

CHAIR: We are very happy to receive a written response after, in the timeframes we've set.

SIMON ORME: Any other questions on that topic?

ALISTAIR DIXON: Can I just try asking a question in a slightly different way. So, I guess the question is when we're making an assessment of the efficiency impact of transmission pricing, the question, you know, clearly comes up is what period should we use for making the assessment. I mean, if we used a 5 year period, that would suggest that the benefits, any benefits and for that matter costs, would only be for a short term. I guess the question is, you know, is the suggestion that when we're making an assessment of transmission pricing we should be focusing on the short term or the long-term when we're - and, for example, when I think of some of the other, various other initiatives, for example the FTRs proposal, I think we did a 30 year time horizon for that, for example, I would have thought transmission pricing is sort of comparable, but did you have any thoughts on that?

NICK WILSON: I don't know whether David has any comments on that specifically. Again, as I say, I think the - I mean it is inherently difficult and I would have to understand more around why the Commerce Commission adopts a 5 year period. So, again, I'll have to take that question on notice and give you a written response.

BEN GERRITSEN: Ben Gerritsen from Castalia. Just I guess the thing I would add is it seemed to me that Mighty River's statement was more going to the appropriateness of the top-down methodology and sort of highlighting that, yes, the Commerce Commission does apply this approach in merger applications but it does so using a 5 year period. Again, that reflects the inherent uncertainty of the innovative changes, the changes in innovation that come through a merger, and just that the context that we're dealing with here is quite different, and I mean I would tend to agree with you, that a longer time period is appropriate here, as is a completely different methodology for the cost benefit analysis.

SIMON ORME: Thank you very much. I might just move on to another question, again still to Mighty River Power, and you've already alluded to this in a comment you've just made to me earlier. It's further submitted that we do not consider it credible that innovation could explain the significant increase in dynamic efficiency considered by the Authority. As noted by Reunion, the current large scale generation and transmission technologies available at present are by and large the same that have been available since the 1950s. So, this is the comment you made before.

So, this seems to imply or suggest that there's not really a connection between efficient price and innovation; is that what's being suggested?

DAVID REEVE: Well, I guess I should add, put this in context, that we have a nodal spot energy market and that there's probably less effectiveness in transmission pricing when it is only indirectly and, and possibly weakly indirectly linked to the decisions to invest, or the participation in the investment decision. So, in that context that's sort of where we make the context in that. Sorry, I kind of lost track of the question in making my caveat.

SIMON ORME: That's fine, I think we've partly covered, traversed the territory anyway, so, yep.

CHAIR: Just a couple of observations. You will have possibly noticed in the market brief that the Authority put out this week, data about distributed generation, and there has been a very significant acceleration in the megawatts of distributed generation that are now being recorded, that have occurred over the last two or three years. The data ends in 2011 so we haven't got the latest figures. That seems to me to be probably somewhat connected with the transmission pricing methodology interplaying with the avoidable cost allocation methodology that came in some time ago. And so you have a very quick response to investments in response to that possibly, I don't know, it looks to me an appropriate case, and then certainly one got a lot of feedback from distributed generators in the current arrangements because they said they had been investing on the basis of the signals that they were currently doing, so we know those two facts.

Then if we move to the RCPD, which is not at all a a, capacity investment, it's a peak use investment, and it's one that's designed to allow those with flexible load, possibly because they have their own generation capacity behind than possibly otherwise, to essentially shift the interconnection charge on to other people who have less flexible load. It just works out the peak, it doesn't work out whether the bus is full or not. Yet we have certainly clearly seen from the feedback we've got in relation to that, that people have responded very significantly to that signal.

So, doesn't this suggest that transmission pricing methodology, at least as a hunch, is pretty important in investment decision-making in those two contexts, or are these people trying to pull our leg with their submissions?

DAVID REEVE: No, I wasn't trying to suggest that it isn't important. I think there is, the other dimension, the other dimension I sort of bring in, and I'm not saying that I necessarily think that this is the case, but one of the questions is the RCPD pricing may be incentivising that distributed generation investment, but actually is it economic or is that peak signal too strong?

So, I'm not saying that's the case, I'm just saying that efficient investment isn't necessarily - you can't necessarily say that the investment was efficient because the investment is occurring. It actually could be occurring because the signal is too strong or too weak, or not there at all. So any, any one of those combinations.

So, it's not that we're trying to say that the transmission, transmission pricing cannot affect investment. All we're trying to say is that what we, well, to go back to the classic literature, what we're trying to decide is if the locational spot pricing by itself is missing a locational signal that therefore needs to be made up in transmission investment, and it's there that we're not clear that a locational signal is actually necessary in transmission pricing.

SIMON ORME: Can I just sort of follow that up, then. The question is following on from the point about distributed generation.

So, if you imagine you have a situation where distributed generation is kind of getting up to close to being at grid parity, let's suppose that, but you've got some areas where there's the transmission charge is actually above the efficient price, so the actual transmission price is above the efficient transmission price, other areas where you have the opposite. Is there a possibility that you might be stimulating inefficient distributed generation in the areas where the transmission charge is too high and perhaps deterring efficient distributed generation in transmission charges where it's too low; have I got that back to front? Yeah, so, yep. I think you get the point of my question.

DAVID REEVE: Yes, and our point is, yes, that transmission pricing can absolutely affect that and it can be efficient, it can be inefficient, it can be immaterial, but from, I guess a lot of our submission is based on the work done around the GEM analysis, and earlier things, and perhaps an earlier analysis of that as well is that it's not clear there's a missing locational signal in the current energy prices, which is the primary method for signalling that. Having said that, there is the question about the RCPD and the effect that has. We haven't done any analysis on that but it can affect transmission investment and that can be inefficient in two directions.

ALEX SUNDAKOV: Could I jump in because I think it kind of fits in with what we were saying and it's important to bring out a few points. I don't think anyone, well, certainly we're not saying that transmission pricing methodology doesn't have an impact on investment decisions. I think the key point we're trying to get at is that you cannot presume simply from the, sort of the names of your charges, that they will have one or another kind of impact on investment decisions. You actually need to drill down and think through what will be the actual impact of particular components on investment decisions, and whether that's going to enhance efficiency or not. And, for example, as we discussed in our paper with respect to the SPD allocation, you know the, I mean running the model to identify the beneficiaries is really analytically cool. You know, as a geek I thought, this is fantastic. But that, to me, does not automatically lead you to say, and therefore applying that to a pricing regime will lead to efficient outcomes, and certainly you can see how you can simplify that model quite a lot and still get quite a lot of efficient outcomes, but that's precisely where I think the, the drilling down is required.

But, equally, the other point we tried to kind of emphasise in our paper is that you also have to think of that in the way it interacts with other market elements and other regulatory issues. For example, you can have an argument about how the use of the LOC LCE sorry to apply the transmission charges could have an impact on changing the incentives relating to transmission charges. But at the same time it has unintended consequences. It increases the costs of managing, basis risk for retailers. That will have an impact as well, and you have to look at the two together, not just one in isolation from the other.

CHAIR: Alex, could I just put a proposition to you, that the top-down is helpful when you're thinking about dynamic efficiency for reasons that it's often difficult to identify, but bottom-up is a good discipline upon you making sure that you have got the transmission mechanisms that you are assuming are leading the efficiency change, clearly identified and well understood, so that probably the best thing to do in these circumstances going forward is to have a bit of both and to try and then reconcile them. One of the dangers of the bottom-up, as I'm sure you're well aware from having to be an advocate in some of these contexts before, is that it does tend to drive you towards harbinger triangles which are easy to measure and miss those dynamic efficiency gains. If you go to the other side, just dynamics and it does tend to make you gloss over what the transmission mechanism is. So, I put it to you that maybe the solution really is a bit of both?

ALEX SUNDAKOV: I don't think we would disagree. I think it's very much as you said, we thought that the weakness of the analysis was that by not going to bottom-up it missed all the discipline that really would be very helpful in making the decision. I certainly see value in having to top up as a cross-check on the bottom-up analysis.

CHAIR: David, do you have the same view?

DAVID REEVE: Yes, I do. I mean, let's be honest, it is very difficult to do and it's probably, to be honest, a little easier to pull it apart than it is to do it in the first place admittedly. But I think probably the more ways that you can cross check it and then discover the issues around it and think about it and use that as context for a decision, the better.

CHAIR: And John Stephenson, you're an expert at cost benefit analysis, that it might be better to have top-down and bottom-up to cross check?

JOHN STEPHENSON: John Stephenson, NZIER. Having both is of course going to be useful. I think we've mis-characterised the debate by making it top-down versus bottom-up. And so really the issue at stake was the application of the top-down and a particular parameter in your top-down, your analysis, the analysis could have been quite good and quite informative if there had been some more empirical basis on the parameter on the top-down, and, in fact, if you'd worked on that to a certain degree you wouldn't necessarily need bottom-up. It's really a question of saying what's a reasonable order of magnitude for dynamic efficiency gains; how can I motivate that with empirical evidence; how small would my parameter have to be to actually match costs; and, how reasonable is it for that parameter to be that small. And there's actually a range of places that you could go to get some really good, good numbers that would have you parameterise from the top-down. So, and bottom up's good but it's usually extremely deterministic and only really permits one possible view of the world going forward, which is really not to the long-term benefit of consumers, to quote an objective. So, I think top-down, value. Bottom-up, yeah, useful another, data point. It's just really about how you implement your top-down, and probably you needed to finesse it a little bit and reach more for some empirical data on what the gains could actually be.

CHAIR: So, you're a top-down checked by a bottom-up man? With the top-down being the principal one and you only move to -

JOHN STEPHENSON: I think in this context top-down was fine, it's just the way that it was done. When it comes to the question of should you do both, I just ask how big the budget is.

JOHN RAMPTON: Just following up on that, so what would you use to determine the range? If you're saying that - if it's one of your suggestions that you would look for one to break even and efficiency - not only that, you've already given three bits of empirical evidence within the CBA based, basis for using, coming up with that figure, what other evidence or mechanisms do you think we could use to determine that?

JOHN STEPHENSON: So, personally, and we haven't - in a way this is new evidence, we haven't been asked to look at these things in detail but if you want I'll give you two examples of things that we would have reached for.

The first is calibrating what the probability is of error, because obviously there's a big - I'm setting aside the innovation issue but there's the dynamic efficiency question, which is innovation and other things. But optimal timing of investment and you'd say, what's the probability of getting an investment wrong under the current situation, which, frankly, I think we've seen a really big example of that and we've quantified some of that in the cross-submission by looking at some fairly conservative assumptions, what the current welfare cost is of a mistake in, of an error in an investment on the North Island grid upgrade. So probability is not zero of these large mistakes and when you get it wrong, unfortunately it's a fat tail problem, so when you get it wrong the magnitude of the impact is quite large, and you could just say, what's the probability of making another NIGU error again this side of 50 to 100 years from now, or an even more recent investment turns out to be horribly wrong because actually our solar PV turns out to have been a good plan. You see it calibrate and say how small would the probability of making that error then need to be for us not to cover the costs of this proposal; that's one approach. I know that does accommodate to some extent the problem that we have with the mothball regulatory jurisdiction and so forth, but, nonetheless, crucial issue.

The second one is the flexibility of the pricing approach and it's not very hard to come up with a reasonable distribution on the probability that load doesn't grow from here on in, or more to the point, that load actually collapses because of a large change in industrial mix in New Zealand. It's not at all beyond the realms of possibility. What's the probability that you would require for you to benefit from having this different approach in terms of how we allocate the benefits in costs of the transmission system? You're not going to get around the fact that Transpower's guaranteed it's MAR for the present time, for all the warts that that brings, but at least, and we made the point in our cross-submission, that the cat is very much out of the bag. If you actually look at the numbers you've already done on running the SPD, you can see that we're already charging people for more than they benefit from certain assets, or will do. This is certainly problematic and if we get a situation where demand collapses and prices for transmission go up with obviously a concomitant collapse again, and demand that would follow from that, that's a horrible situation to be in and it could happen with a non-zero probability. What would be the probability; what would be the cost to consumers of this rising tax on an unused asset; and frankly, if you wanted to, if you wanted to get a general overall welfare impact from that, you could plug it into something like a CBE model. We just say, look, we're just going to raise the tax on basically everybody for using energy but no - or at least using the transmission grid, and see what happens, see what the welfare loss is in those circumstances.

Now obviously you're going to avoid a lot of that, a certain degree of that if you move from an RCPD style system on load shifting across to an SPD style system, at least to the extent that you have some opportunity to adjust the benefit, people's charges according to whether or not they're actually benefitting.

Of course, it would then become screamingly apparent that you've got a problem with your pricing system and with the fact that you've got a guaranteed Ma for assets that are no longer used and useful, and that I think I can entirely agree is a major high-level top-down benefit that you can calibrate in terms of new information that the other regulatory agency would otherwise never have, and that's a key benefit of the overall proposal.

CHAIR: David? No advertorials about CBE models, please.

DAVID DE BOER: David de Boer, from NZIER. I was just going to say not on the transmission pricing but we've been through this process advising in South Australia transmission with respect to innovation and changes, and the impact that has on determinations regulatory pricing basically. So, in terms of advertorials we have recent experience in that area, and yep -

SIMON ORME: Alex, would you have -

ALEX SUNDAKOV: I think there's just one point perhaps worth coming - I think there is kind of a completely separate debate which, it may be interesting, about whether the grid investment test process allows you to ask questions about whether, what's the risk of the assets not being used and useful, but putting that aside for a minute. I think that you can't say this is simply about empirics, that it doesn't really matter whether it's bottom-up or bottom-down, that it's all about the empirics. If you have more empirical bottom - top-down then you'll be fine. And the reason for that is that top-down inevitably forces you to think about your proposal as being kind of the entire package whereas in reality there are elements of the proposal that can be varied a bit and the value of the bottom-up approach is it allows you to think about different components of the package in a way that you wouldn't have otherwise.

DAVID REEVE: Sorry, am I able to make another point? Sorry, I'm going to harp on about this point but there are other methods of doing the cross-check as well and I'll remind again, or put forward again that we have a locational marginal pricing market for energy, and the degree to which a transmission, a locational transmission signal is efficient, has to be done in the context of that locational energy price. And there is only one - my concern with the, with both CBAs, to an extent, or both approaches I should say an extent is that they don't look quite so strongly at the interaction with the energy market and whether the energy market is already likely to deliver substantial energy gains.

I think there's one piece of analysis which does do that, which is the GEM analysis and I accept that also has its limitations, but I think you need to look at all of the things that are relevant to the efficiency effect, if I could put it that way.

CHAIR: Well, I note that the time has gone past our afternoon tea by a little margin, so we'll break for afternoon tea. When we return, anybody else who thinks they're a cost benefit expert and has a view on this particular thing will have an opportunity, then we can move on to the next topic. So, we'll resume for the allowed quarter of an hour for afternoon tea. So we'll resume in quarter of an hour's time at 3.23.

(Conference adjourned from 3.08 p.m. until 3.25 p.m.)

CHAIR: I've got a couple of announcements to make. In my usual desire for efficiency I thought that we would carry on with SPD later this afternoon but the lawyers have suggested that people might complain the fact that they were all going to come at 10 o'clock tomorrow morning and they didn't know that we had started discussing SPD. So we are just going to finish with the cost benefit analysis and not start early on that.

The second point is that the stenographer has request that I announce that please hold the microphone right up. You should be a jazz singer, not a pop singer on this particular thing. So, that if you cradle it, your microphone and talk in a husky voice, we will all be very appreciative. We've still got a little bit more to go on the - oh, I thought we'd culled all you people. I'll start my announcements again. I had –my, my optimism or pessimism was ill-founded. I thought you'd all been culled, decided to go to the pub down on the corner.

Anyway, Two announcements; one is, I had in my desire for efficiency thought we would go on with SPD today but the lawyers advised me that there would be people who like talking about those issues in High Court, so since that would be too expensive we're going to take the lower efficiency route and finish after cost benefit analysis.

The second point is that we, I have been requested by the stenographer to remind you to hold the microphone close to your lips. As I said just before you all arrived back in, be a jazz singer, not a pop singer, and husky voices are permitted as you breathe into the microphone.

So, just before we go on to the next question, we had just finished what I found was a very useful discussion about cost benefit analysis. Are there any other cost benefit analysis experts sitting out there who are feeling a burning desire to chip in their bit on it, on that previous discussion that we had?

Nobody is brave enough to in fact confess that they find cost benefit analysis attractive, apart from three people, and the whole of the Board of the Authority of course. Are you not claiming to be a cost benefit expert though?

PETER CALDERWOOD: Peter Calderwood for TrustPower. What I would just like to comment, the way in which we looked at the cost benefit analysis and the top-down versus bottom-up, is to try and bring that back to real world, and I think we find bottom-up, you can find bits that go back to real world and say, do you think this is going to happen and you can then look at that and say, yeah, I can see how that could happen and that's the benefit that I see out of that.

The problem I think from the top-down point of view is you're starting - you start with effectively, first of all you're making the assumption that you have got an economic gain, and so you've got to have that assumption. And then, secondly, then you've got to say, well, how much is it, and to me they're both pluck out of the air type things. Whereas I, with my engineering science background, I want to actually know how this is working. So, that's the one point. And then I think come back to calibrate against other models, and I know Dave made the comment about the GEM analysis in which a lot of work has been done, and the other thing, I've always looked at these things, and look back and say well, what have other models come up with and are we getting calibration between those various analysis, and I think that's where the main problem that we have, is we don't appear to be getting the calibration between those.

The other comment I would like to make, a relative comment I made this morning, is that I think there needs to be a bigger test from a costs benefit point of view the bigger the change you're doing. So, if you're doing smaller incremental changes you don't have to be quite as certain because you can almost gut feel if you're getting the benefit. If you're doing a major change, you really need to look closely at what's the benefit and in reality what we're talking about here is 0.3 of 1% of the whole future investment tests and, yeah, for a really quite radical change of transmission pricing. So, that's just probably more a couple of thoughts rather than - but they have come through in our submission.

CHAIR: Thanks, Peter. So we'll move on to the next question, unless there's somebody else?

SIMON ORME: There might be an opportunity to, to make some further comments because we've just got two more questions and actually they're on the same line of questioning. There's one, I'll just go straight now to Transpower and it's really, yeah just very much in the same vein as these recent questions, or this topic we've just been discussing.

So, Transpower's advisor, CEG, noted with respect to the efficiency factor applied to estimate dynamic efficiency benefits from the proposal: This efficiency factor is not estimated, it is assumed. That's in the CEG report, page 16. Are you, through CEG suggesting that dynamic efficiency benefits could be estimated through modelling, and if so, how would you suggest that the Authority might go about doing that?

ROSS PARRY: Just first point I suppose is we haven't brought CEG along to the conference, we weren't clear whether there would be any questions for them and it's a long conference. We anticipate that we would use CEG, or other independent economists, as we progressed through our task of developing the detail TPM as well. So, we're willing to make CEG available for discussion outside this conference, if that would be helpful. So, I won't try and speak to what CEG have put in their paper.

I'm happy to speak about estimating dynamic efficiency which I think is really just to reiterate that, agree it's a difficult task, but I think that you can make an effort to explain the precise mechanisms by which you expect some dynamic efficiency gains to occur, and that by doing that you allow targeted debate on the various mechanisms and whether that is how they would work, what the quantum, potential quantum is, and it allows you to have a more constructive focused debate rather than on a very high level, assumed perhaps, number, which doesn't really lend itself to any sort of meaningful advance of understanding whether the proposal is likely to produce a benefit at all, or a large or a small benefit.

SIMON ORME: Thank you.

CHAIR: I take it that you'd be comfortable if CEG provided a written response to that question?

ROSS PARRY: Ah yep, sure.

JOHN RAMPTON: I was just going to ask one follow up question of Ross, because in the CBA analysis we did provide a set of reasons why we thought the dynamic - why this produced benefits, including dynamic efficiency benefits, about eight or nine. Are you saying that's not a sufficient itself, you need to, I suppose like Ben has indicated, try and value those, is that what you're saying?

ROSS PARRY: I mean for me when I saw the Castalia analysis that they had done, I found that to be a very useful tool for sort of getting to the bottom of which areas were you expecting efficiencies or inefficiencies to come about, and to understand, you know, why and precisely how, and sort of how large that might be. I mean, I just think that, you know, to me looking at the consultation paper CBA, which I think really didn’t particularly add anything to the other analysis that was in the consultation paper, compared to that sort of decomposition analysis, sort of break-down did really advance or help you I think narrow in on really you think the benefits are going to arise, allows you to have the more considered discussion around whether those mechanisms, you would expect them to play out that way.

JOHN RAMPTON: Okay.

NICK WILSON: I was just going to add a comment. Nick Wilson, Mighty River Power. Just for yourself, Brent, and the Board, we very much do support a bottom-up approach being done. I think it came through in our submission, and we totally agree with the comments that Peter Calderwood just made there, and the comments that Ross made there as well. We would really like to see, if the Board takes one thing away from the session it's that there is a need to do that analysis we think, and we would also think that it is really important that that's a transparent process; that people have the ability, and the main benefit we see is that people have the ability therefore to scrutinise the assumptions that go in and we avoid the sort of nine months that we had of a bit of a black box process, we can probably work, collaborate together, an ability to have a working group process around it.

We also believe that there should be an independent verification of that bottom-up as well and I think that would really put us on a strong footing going forward on options.

ROBERT ALLEN: Just building on the comments preceding me which Vector would agree with entirely, the risk around a top-down approach is that if it's too abstract and this 0.3 assumption you could - and the numbers coming out of that, you could apply to an entirely different transmission pricing methodology proposal that you believe would promote dynamic efficiency, or indeed another EA proposal that had nothing to do with transmission pricing because the number is quite independent of the proposal that it purports to calculate the cost benefit for.

SIMON ORME: Are there any further questions on this?

I might just move now actually to a question to Vector, which has partly been answered already I think but if you don't mind I'll just go through it anyway. Because you submitted in page 45 of your submission, that sources of data the Authority used to come up with the 0.3% efficiency factor, such as the Commerce Commission calculation of total factor productivity and distribution, have nothing whatsoever to do with transmission pricing.

Can I just - I guess it's a question to you, is if the Authority assessed that a pricing reform proposal would lead to productivity improvements, and there was a narrative and a set of transmission mechanisms to explain that, how would you suggest the Authority would quantify those improvements?

ROBERT ALLEN: First, I'm not aware of any suggestion that this proposal would result in improved efficiency in distribution, and how that would be quantified is not something I could answer here, I'm obviously not a cost benefit analysis expert and that's no non-trivial question that you're raising.

SIMON ORME: Maybe I'll explain it a little bit more because why, the point about distribution was that there is a study there - this goes back to the idea that we need to, you would need to do it in a top-down, you would need to sort of look at various basis for an estimation and if there was no basis in transmission but there was one in distribution related downstream market, would it not be valid to you know, draw on that study for distribution when thinking about the transmission?

ROBERT ALLEN: I'm not sure what the, how the Commerce Commission's calculation of total productivity and distribution would impact on what the efficiency of a transmission pricing proposal would be. If you believe it is a useful resource, then if the Commerce Commission concluded that distribution was really inefficient or was very efficient, it would result in quite different numbers for this transmission pricing methodology proposal and it's not clear to me why - what the total factor productivity of distribution is would impact on what the benefit of this proposal that we're talking about today is.

SIMON ORME: Okay, can I just ask, are there any other questions?

JOHN RAMPTON: If could I ask a question, Rob, just following up from that. Does that mean the only analogous approach would be one done on transmission pricing? If you're saying you're concerned about using distribution is to give you some insight into the efficiency factor for transmission, would you only be comfortable with one that uses transmission pricing?

ROBERT ALLEN: Can you repeat the question, please?

JOHN RAMPTON: So, your concern I understand with our citing of the distribution factor used by the Commerce Commission is the basis for determining, determining the efficiency factor for transmission pricing, does that mean therefore that you would only be comfortable with using one that's from transmission pricing itself?

ROBERT ALLEN: I would have to see the specific proposal. The question seems quite abstract. The point I'm trying to make is that there isn't an obvious link between distribution efficiency and the benefits of this transmission pricing methodology proposal.

SIMON ORME: I don't think the idea is that there's a link, it's just one of the techniques that's often used in cost benefit studies, that where you look at major economic reform. So, you come to - you know, a set of proposals, you're valuing a set of proposals to reform some sector of the economy. You know, there's no data on what the reform impact is because this sector of the economy hasn't been reformed yet. There's another part of the economy where reform has occurred and one of the classic techniques in cost benefit studies, you say, well, okay, the last four or five economic reforms you got efficiency improvements of this sort of range. Now, there are differences between those industry and this industry but, you know, there's always lots of judgments to be made but if you say it's you know, between 1% and 3%, then maybe 2% is not a bad number to use, just suppose.

Is that approach, and if you have a number for distribution which is related downstream market, there's a lot of similarities between distribution and transmission, obviously there are differences as well, would not some, you know the results in the distribution case be of some interest and relevance?

ROBERT ALLEN: I would probably go back to the point I made originally, that there is a risk if the cost benefit analysis is too abstract that it doesn't have a relationship to the particular proposal, in which case you could apply the same cost benefit analysis to a different pricing methodology proposal, or some other Electricity Authority proposal that didn't relate to transmission pricing, and that's risky and the people round me have gone into detail about some of that risk and why that might lead you to take a bottom-up approach that's less abstracted.

SIMON ORME: Okay, are there any other questions? Could I just maybe ask the question - oh, sorry, Alex?

ALEX SUNDAKOV: Simon, I just wanted to perhaps just pick up on that point. I don't want to belabour the point, but I think, as we said before, the problem with applying that technique that you say is used for reform is precisely that you're making a presumption about the direction of change, whereas I don't think you can do that, I don't think you can start with a presumption that this must lead to efficiency.

But the second point I just wanted to build - I mean, let's say you had really good information about total factor productivity of transmission networks, and they gave you some idea about the possible productivity improvements that could be achieved there. I mean, obviously, you've got to go through further iterations to figure out why this particular proposal will get you closer to the envelope than any counterfactual you choose.

BEN GERRITSEN: Sorry, just to add to that, I mean I think the approach of using total factor productivity analysis and distribution might be useful if the distribution sector had gone through a similar regulatory change as to what you're proposing here. Absolutely, I agree that would be a relevant factor then. But my understanding of why those TFP studies were done in distribution was not to evaluate regulatory reform but rather to set the X factor in the CPI minus X regulatory formulation. So, that was much more of a question of asking what is the general rate of efficiency gains expected in the distribution sector of the economy as opposed to what are the specific impacts of a regulatory change. And I think that goes to Rob's point, about, you know, is it really a relevant comparator.

NICK WILSON: I was just going to add a point in to the extent that it's helpful, Covec our consultants, they provided a report and I don't know whether you've seen it, in section 5.3 of their report they actually point to the fact that, you know, again it comes down to what factor you select. You've chosen distribution but if you look across electricity, gas and water productivity growth, they actually conclude the productivity, multi factor productivity has on average fallen by 1.7%. So, the question becomes one of, again, we're talking about a factor, what factor are you going to use, again engaging with industry and trying to get a baseline would be appropriate, but we still reiterate the need for that to be informed by a very solid bottom-up appraisal.

CHAIR: I've got a question actually for Rob but he's very welcome to pass it on to some of his consultants or colleagues, if he wishes. That's that in your cross-submission you raise the point that Transpower in sort of early 2003 was on what used to be called the "glide path", that is distributed generation was going to overtake the need for much building of transmission. But by late 2003 they'd had a new Chief Executive and they suddenly had a very large investment programme which emerged over the next two or three years. So, they went from a glide path which was minimal investment to significant. Now, you've raised this in your submissions.

Now, what do you think, because clearly the benefits or non-benefits of changing the transmission methodology are going to depend on the probability that we go through another transition of similar form; get a change of Chief Executive, centre structure that you can get returns on your assets irrespective of whether they're used or useful, your WACC you may get the High Court to give you above your real cost of capital. I know you've argued they're already getting that. So, how realistic do you think this is, that how big a factor should it be in our assessment of the likely future benefits, that is, how how much do you think that the claim that's in many submissions that the investment bubble in transmission is all over, is correct, and that there isn't any risk that we may have another one?

RALPH MATTHES: I think the only - I suppose we could go on all day about the risks, Brent, including change of Government. So, yeah MEUG was certainly one of those parties that indicated that there should be stability in terms of future investment. That was one of the reasons why we were concerned about actually being in this process at all. Nevertheless, I agree with you that there is a future risk exactly as you have explained that we have seen in the past. So, it's essential that we get better pricing signals. I'll leave it for, whether Ray or John want to make any comment?

RAY DEACON: Ray Deacon, Pacific Aluminium. Yes, look, good points that have been raised and I think that the industry is always at risk from quite outrageous and excessive gold plating, such as the example we have with the Otahuhu gas insulated switch gear, indoor gas insulated switch gear sub-station which really was a quite unnecessary investment to deal with the problem. Now, it's what, 104 million and climbing, or, where something like $15 million was only required. A methodology such as proposed by the Authority would, I think, have exposed much more of this gold plating around that sort of investment and that’s therefore that's why it's quite important that we improve the methodology beyond what we've got. This was, this was just the sort of investment that became a, a huge burdensome cost to load while the supply side bore none of that cost risk.

CHAIR: Are there other views on this issue?

ALEX SUNDAKOV: Just a very minor conceptual point that's probably just worth reminding, that of course the cost benefit analysis needs to look at the final incidence of cost, not the initial incidence of cost. So, just because something goes to load first or to generators first, what we're really interested in is the final incidence.

CHAIR: A good point but I think Ray was actually suggesting that that was a cost that would have gone nowhere in terms of the Otahuhu Station. Peter?

PETER CALDERWOOD: Peter Calderwood from TrustPower again. I think we've lost the point here. We're talking about transmission pricing here, not about transmission investment decisions and I know we're talking about some interrelation between this, but these sort of decisions are the decisions of the Commerce Commission in approving an investment, and so this is the whole second order issue we're saying by, yeah, we're justifying our new transmission pricing on transmission investment. With the gas insulated switch gear up at Otahuhu, there in that case yes definitely with the loads that we have to pay, they were very incentivised to make submissions on that. It still got through the process. I can't see why it's going to be any different by changing the transmission pricing methodology. It's about robustness of assessing the new transmission investments.

CHAIR: Molly?

MOLLY MELHUISH: Just to say "hear hear" to what Ray Deacon said, unbelievable, is that we have continually worried about over-investment in transmission and brought that up continually from our first framework submission right on through, is that loads can be assumed to be paying because they have to pay, and we've had over-investment in, and transmission also in generation, possibly less so in distribution which is an interesting contrast but it has been a concern of ours.

DAVID REEVE: David Reeve, Reunion. One of the concerns we have with the, the assumption of dynamic efficiency benefits from the transmission pricing methodology is that the linkage to that investment decision is extremely indirect and weak. While I can accept that that might increase the pressure on Transpower and that may or may not lead to some influence on them, I've got two points in that regard; the first is just because you're causing someone to have issue with Transpower's investment doesn't mean that that's efficient, it just means that you're having an effect. So, you've got to bear that in mind, that just, just creating the impetus for the supply side to engage with Transpower isn't necessarily in and of itself what leads to anefficiency.

The second thing is that, maybe not so much on the interconnection charges but on a number of other areas, the supply side gets very energetic with Transpower and it's almost always true that if they bend on something then someone wins and someone else almost certainly loses, not always but sometimes, most of the time, and they are actually really good at not bending.

So, I think it's got to take a bit of a pinch of salt, that transmission, I think transmission pricing can only have a limited influence on the transmission investment side of transmission investment.

CHAIR: Alan Eyes?

ALAN EYES: Thank you. Alan Eyes from New Zealand Steel. I guess reiterating the point I was making this morning, that I can't see how we can have an efficient pricing mechanism which assures the asset owner of a guaranteed revenue and a guaranteed market return and, you know, one of the particular points I think that's come up this afternoon is about stranded assets. If the supply side and the demand side is bearing the risk of stranded assets, I have difficulty seeing how that leads to an efficient transmission pricing methodology.

CHAIR: In the back row?

MARY ANN MITCHELL: Yes, I'm Mary Ann Mitchell representing Pioneer Generation. I just want to - seems to be a bit of a free for all now but I just wanted to reiterate a comment from our submissions, that the cost benefit analysis doesn't seem to take into account the impact on the distributed generation sector the proposed transmission pricing methodology.

And I also wanted to comment on a point that was made by I think someone on the table before afternoon tea about the innovation factor seeming to make an assumption that there would be more distributed generation as part of innovation. And I think if you're thinking about distributed generation that contributes to managing, helping network companies manage peak demand, which that type of investment is questionable under this proposed transmission pricing methodology.

ROSS WEENINK: Ross Weenink from Powerco. Just a point about historical accuracy. I think it's fair to say that the move away from the glide path approach actually began before the CEO changed to Transpower in 2003. So, it wasn't - that move to investigate the need for greater investment in the grid wasn't purely a function of who was CEO at the time.

CHAIR: It just increases the risk. It could happen at any time.

ROSS PARRY: Perhaps just another point for context on that I suppose is that we're in a very different world now where we do have fully fledged price path regulation that has oversighted all levels of capital expenditure and operating expenditure. So, I think you know, the lessons we can draw from more than a decade ago when we were in quite a different regime are only of limited value.

CHAIR: I don't think I'm talking out of school but of course we have, of course, talked with the Commerce Commission, as you would expect, about these issues. One phrase, admittedly from only one Commissioner, was some assistance in dealing with this matter would be appreciated. So, even they haven't discounted that there are issues. As a regulator you become very aware that you are at an asymmetric information disadvantage, hence we're having this today to try and find out really what we - a better knowledge what's going on.

GUY WAIPARA: Thank you Guy Waipara from Meridian. Yeah Just a couple of points. Firstly, a lot of work has been done with this bottom-up/top-down talk. A lot of bottom-up work has been done, maybe it could be done a bit more comprehensively but before you know before this forum, with transmission pricing advisory group and before that the EC, and work ourselves have done, have all shown there are inefficiencies on the table with the current regime. So, the starting point is there are efficiency gains to be made.

Then I think the next point is it's a more of what do you have to believe and I'm not an economist so this is more of a been round the debate perspective, but do you believe there's something more to be gained other than what we've identified in a very kind of mathematic way, which is the shifting of a bill profile of generation over time which is what's being quantified, and so do you believe that having more eyes on the ball and more eyes on the game and giving Transpower a little bit more of a harder time around their bill programme will deliver better information and better debate and better results; do you think there's something in that? And having been through this process through being highly incentivised to be engaged, we've put a lot of effort into this with pole 3 upgrade and we've found there are a lot of things wanting in the way Transpower at the time pulled together their proposal and we made them change I think through a lot of pressure. so Now whether that delivered results that would have been delivered if we weren't there, it's hard to say but we believe we made a difference and we do think that scrutiny does actually make some difference. So we actually do believe there's something there.

CHAIR: Any other comments? Staff?

JOHN RAMPTON: I've got a question for Mary Ann. You said the cost benefit analysis - have you considered that the cost benefit analysis didn't fully undertake an assessment of the effect on distributed generation, particularly that it's funded by ACOT, do you think if we did that and took it into account do you think that given some of the concerns today about the efficiency of ACOT, it could arrive at a determination that the current arrangements are impacting on efficiency negatively?

MARY ANN MITCHELL: Thanks, John. Mary Ann Mitchell from Pioneer. I can't - we haven't done the analysis so I can't say categorically one way or the other but our point is they don't think the Authority has done the analysis in detail either.

JOHN RAMPTON: So you would support us doing that analysis?

CHAIR: Well, that seems to be it for today. Oh Sorry, Lew? You've been waiting to be the last person, have you?

PROFESSOR LEW EVANS: I've been hiding from you, that's correct, with some success. Anyway, I just thought I would make the generic comment about what an economist might look at from incentives in this business.

We have investments looking forward. They're not just investments by Transpower, they're investments by related parties, including generators and distributed generation, but in the particular case of Transpower we could think about what their incentives are versus the incentives of people in the market. Now, essentially Transpower, if it has approved investment, gets a return on its investment that is commensurate with it being interested in carrying out the investment, and so that if it comes across an investment that looks like a good idea, if I were Transpower I would say go for it.

On the other hand, if we were to think about what's the optimal way to invest, then the optimal way to invest is to choose the timing really carefully, and in this setting that's really hard and the incentives are not necessarily on Transpower to do that.

Now, I'm not arguing necessarily that Transpower has behaved irresponsibly at all in this way, because I do know that in some of their analysis they've used real options about which way to go, and so on and so forth, but nevertheless the incentives under the regulatory institutions that we have are that if we have a good idea and that it will be approved by the Commission, let's do it. I mean, if I was running Transpower that's what I'd say. If I was Mighty River Power, I would stand back and say, hey wait a minute - or some other generator, whatever, market participant, new, whatever, I would stand back and say, now, what's the optimal time for this investment. There's no doubt being a natural monopoly you get to choose the timing of investments without the regulator, you don't have competition that's going to take them away from you. So, there is a timing issue. And so bringing to bear market participants some way, I'm not sure the proposal does it, but it tries to, to scrutinise investments may well have a good pay off.

CHAIR: Thanks, Lew. Well with that comment I think we will bring today's session to a close. We will resume at 10 o'clock, coffee at 9.45, same room. Thank you very much all those who have participated today and I'm sure tomorrow will be very interesting about the SPD.

(Conference adjourned at 4.05 p.m.)

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