26 JULY 2004

[9.10 am]

CHAIR: Good morning everyone, can I just ask if you can hear me in the back of the room? Yes thank you. I'd like to welcome everyone to the Commerce Commission's second day of the conference on the Draft Gas Pipelines Inquiry report. I'm not going to go through the full statement that I made at the beginning of the first day, but I did want to recap on one or two matters.

The first is we have today, as we will have on each of the days of the conference, a number of experts who will be attending and presenting at the conference. I would like to stress once again that their role is as experts in their field. An expert is not to act as an advocate for any particular party and I would ask you to note that if the Commission considers that experts are in fact acting as advocates for a particular party, their submissions will be treated as though they are part of that particular party's submission rather than as expert opinion.

I also wanted to note that there is a great deal of confidential material in the submissions and we are committed to holding as much of the proceeding in open session as possible, but if we need to go into a closed session to consider confidential material I'm prepared to do so. I would ask that if we inadvertently mention any confidential information or if any party does, if you could alert us to that immediately, don't wait for a break in the discussion to do so. Clearly we will endeavour to ensure that does not happen.

The final comment I wanted to reiterate today has to

do with the treatment of tax within the Commission's cost benefit analysis. You will be aware that after the release of the Commission's Draft Report a number of interested parties suggested that the Commission's cost benefit analysis did not correctly account for the interest tax shield for some of the gas pipeline businesses subject to this inquiry. As a result of these submissions the Commission has considered the issue and agrees that the interest tax shield has been incorrectly applied in some cases.

In addition to the treatment of the interest tax shield the Commission has requested further tax information from the businesses to ensure that the tax figures provided by the businesses and used in the cost benefit analysis are the actual tax paid figures. The Commission's proposed approach to calculating any excess returns is based on using the actual tax paid.

Affected parties will have an opportunity to review and comment on the Commission's treatment of the interest tax shield and the tax figures used in the cost benefit analysis prior to the final report being provided to the Minister of Energy. That opportunity will be for parties to review the information and provide written comment to the Commission. That will happen after the conference is finished.

Before we turn to the presentations for today I ask if anyone has any questions on any of those matters or any other matter before we start. [**No comments**]. If not then I would like to now welcome NGC and ask NGC to introduce your participants and please begin with your submission when you are ready. Thank you.

PRESENTATION BY NGC

MR BIELBY: Good morning Chair and Commissioners. Good morning, I'm Steve Bielby, I'm the General Counsel for NGC and my role today is simply to introduce and co-ordinate NGC's presentation today. It seems a fair while since we first appeared in front of you at the conference on the inquiry framework. The Commission and interested parties have undertaken a lot of work since that time. I just note that NGC's approach throughout has been to grapple with some very complex issues that have been raised and in a way that will hopefully assist the Commission in its inquiry.

Our written submission on the Draft Report has been provided to you and is relatively detailed. Our presentation today seeks to highlight a few key issues and also to update the Commission on our view of key market developments in the recent period, and I'd just highlight there have been some quite significant developments as I think you're aware since we last appeared before you. The material I'm talking to today should be simply contained in this summary of slides which hopefully each of you have and which will be shown as we go along.

In terms of the Chair's earlier comment I think in terms of the way we've prepared the material we don't anticipate any confidentiality issues but we can of course deal with that if any arise as we go along and our guestimate is that we should be able to finish well within the day, but of course we're open to questions and discussion as we go along.

With me today, if I could just begin by introducing the people at least at the front bench; on my immediate

right is Mr Phil James who's the Chief Executive of NGC; on my far right Dr Paul Hodgson, I think who's known to the Commission; and on my left Mr Ian Wilson, and those three will be leading the main three initial presentations.

Indeed if I just, turning to the slide that's on the screen at the moment, quickly overview the presentation, or parts of our presentation today. I'll begin by providing just a high level summary of the key matters to be addressed today, looking across each of the presenters.

I'll be followed by Mr James who will provide some key overall NGC perspectives on the Draft Report and then will highlight some key industry developments.

Mr Wilson on my left, he's the transportation manager in NGC's gas processing and transportation group, he will offer some perspectives on the more detailed aspects of the market and NGC's business, including matters such as inter-fuel competition, pricing and investment.

The next presentation will be from Paul Hodgson and he may assisted in various matters by Mr Andy Nicholls from Chapman Tripp who I think is known to the Commission and is sitting behind us. They will focus on some submissions and concerns around the Commission's model and the conclusions that have been drawn in the Draft Report on the model.

Following that, Professor Lew Evans and Nathan Strong from Charles River Associates. I see Nathan is there, Professor Evans I think will join us later. They will add their economic analysis of the Commission's model and related issues and we'll then conclude with any final comments and questions.

Turning then to the next slide, what I have is just three slides which seek to very briefly summarise the key points that are going to be made by NGC today. Firstly, NGC has sought to highlight a view that what we call gas is different. The New Zealand gas market is different to gas markets overseas. Within New Zealand there are substantial difference s to other energy markets, particularly electricity and this should be reflected in various aspects of this inquiry.

I do note that NGC's commissioned a detailed report on this particular issue from CRA and that emphasises the importance which we do attach to it. One key way the differences between gas and electricity are reflected is in the respective regulatory regimes. In general NGC seeks to retain a separate regulatory focus for gas, which meets the needs of the New Zealand gas markets.

NGC also considers that gas remains a marginal fuel, particularly given recent supply side issues which we'll talk to you some more about today. New Zealand does not have large or mature markets for trading gas. It cannot, we say, be treated as a commodity. There have been significant changes in the gas supply equation in recent months, very significant changes, and market conditions are likely to significantly constrain transportation prices for the foreseeable future.

Moving to the second slide of my summary. Not surprisingly the result of these changes in the gas supply situation mean that the gas transportation market is continuing to evolve. It continues to be impacted by the volatility of the New Zealand markets and growing inter-fuel competition. We emphasised these issues at the

framework conference and we'll update that further today.

Accordingly, we say that gas transportation cannot be viewed as a static market. Changing supply side and demand side factors mean that NGC is constantly reviewing and managing its transportation business risks. NGC is needing to invest just to remain competitive. NGC needs to strongly underline these investment and risk issues at this stage in the inquiry process. The presenters will provide some significant particular illustrations of this point.

NGC does have significant concerns around the model developed by the Commission for the purposes of the Draft Report. Firstly at a practical level, the model we say departs materially from the actual business and market models which NGC maintains as an experienced market participant. NGC as a result takes issue with a number of the key inputs to the Commission's model. We'll highlight today just the main issues which we've addressed in more detail in the written submission, however together these will indicate the sensitivity of the Commission's model to those key assumptions. Obviously thence to the outcomes or recommendation s that are drawn from it.

NGC's position is that there are a number of significant improvements or corrections which should be made to the Commission's model. Several of these improvements are of such a magnitude that even on their own, even individually, they would largely or entirely remove the excess NGC profits found by the Commission in the Draft Report.

NGC's submission has also been that the Commission's model is not an appropriate one of itself. However, at a

minimum we say it requires a number of substantial corrections to make it more realistic. These lead to a conclusion using the Commission's own core model, we say that there are no excess NGC profits, so that's where we get to in our work on the model since the release of the Draft Report.

NGC has outlined in its submission that we believe there is a better model which is available to the Commission, but which we say also leads to that same conclusion that there are no excess NGC profits, and that's covered in the presentation today from CRA as well as in our written submission.

Bringing those things together, what we say is that if NGC's submission were accepted on either version, in other words if we continue to work with the Commission's model with the corrections we wish to see occur, or with the alternative model which has been developed with the assistance of CRA, we would submit that there are no benefits from price control in relation to NGC.

However, the Draft Report reaches the point of assessment of benefits to acquirers and then benefits to the public from price control, so dealing with your analysis at that point, we'll indeed come to that point in the presentations, and including the Commission's approach to foreign investment; and as you're aware that matter affects NGC particularly as it's the only one of the suppliers recommended for control in the Draft Report which has substantial foreign ownership, so that's a matter of particular importance to us.

That concludes my summary of the key issues to be covered by NGC. I'm happy to take any questions at that

point, otherwise each of those points will be covered in what follows, and I would otherwise propose to turn to Mr James and ask him to commence his presentation.

CHAIR: I was very tempted to interrupt you and ask questions, but I think it's more appropriate to ask them in the context of the rest of the presentation, I'll just confirm that with my colleagues; yes, okay.

MR BIELBY: Thank you, I do appreciate there's a number of propositions you may not agree with at this point but we will attempt to cover those as we go through. Mr James.

MR JAMES: Thank you Steve. Good morning Chair, good morning Commissioners. This is the first time that I have appeared before the Commission in nearly three years in New Zealand, so I think that's a good sign, I'm going to take it as one.

This morning I'm going to summarise not the detail of our submissions, it's not my intention to go to the detail of our submission, there are others far better qualified than me to do that, but really to attempt to summarise some key points that I think the Commission ought to have regard to before it reaches its final conclusion.

I was appointed to this position in December 2001 and I think I would qualify as a practical expert, and in saying that I've worked in the gas industry in New Zealand and in Australia for nearly 30 years now. I started out as a self-employed person in what was then the LPG industry in Canberra, I was there when that city was reticulated from scratch. I've held many management positions, senior management and other positions in the Australian Gas Light Company, I was employed by that company for more than 20 years, and now for the last two

and a half years as the Chief Executive of NGC Holdings.

So I'm going to be giving you a presentation from my perspective, and in starting what I guess I'd like to establish is the Commission of course will use its expertise -- will use various modeling techniques to evaluate whether or not excess profits exist in the gas industry. Our submission is that they don't and we'll robustly defend that. But my purpose is not to argue that particular point, it's to try and put in context the industry and the set of circumstances that the industry finds itself in today so that any analysis of the gas industry can be contextual.

In summarising then what I'm going to attempt to do today, there are three key points that I really want to go over today. The first is that why treating the gas market in the same way as you would treat electricity or telecommunications may be misleading. In other words, make the point that gas is different for a number of reasons.

The second point then is about the nature of regulation in an economy the size and structure of New Zealand's and why the approach here should not necessarily be the same as the approach in other jurisdictions. In other words, we shouldn't regulate just because others do.

The third and final point that I will make this morning is that recent changes in the New Zealand gas market, particularly those changes that have occurred in the last couple of years, and I'll attempt to describe them, have imposed a significant market discipline on gas transportation services that didn't previously apply and

therefore regulation may be a blunt instrument. In other words, the point that I want to make there is the small benefit which may be accrued to consumers today from regulation could be at a substantial cost to consumers in the future.

Just to start then I'd like to really, if you like, break the gas industry or the gas market into three concise periods, or clear periods. The first, the Maui period from about 1970 through to 2001. The second, this market transition period which has been going on for all of the time that I've been here working in New Zealand, and we see will continue out for the next couple of years; and then finally beyond about 2007, late 2006, 2007, a new period for the gas industry and one that we've interpreted an uncertain future and I we'll be able to demonstrate this morning why it's uncertain.

Just looking now back at that Maui period, if you like, the golden era of gas in New Zealand. No wonder it was called that; dependence on a single field but a world class field. For an economy the size of New Zealand to have been in many ways fortunate to discover the Maui Field was a real boon. The Maui Field had tremendous potential both in volume, it's ability to supply the market, and in its flexibility. The swing or the flexibility available from that field has been very substantial and quite unusual even for fields of that size.

Supply for all of that period exceeded demand by a country mile. Gas prices as a consequence were low and stable given the contractual arrangements that were entered into at the beginning of the Maui period and that

period of time has witnessed in New Zealand significant market development in petrochemicals, a petrochemicals industry that may otherwise not have evolved in New Zealand. It was evolved as a sink for natural gas.

A power generation market, I understand that the initial focus of the development of the Maui Field was to assign that gas to power generation. In the end the economy wasn't big enough to sustain that over a period of time, hence the rise of petrochemicals. But certainly gas has fuelled most of the thermal marginal power stations in that period.

The other interesting feature is the rise of energy intensive industrial customers. Off the back of low, stable, long-term prices a range of industrial consumption has evolved in New Zealand which, it is arguable, would not have evolved under different energy market circumstances. Fonterra, wood industry, those sorts of things are energy intensive users of gas and it's quite broadly believed that they developed because of those particular market situations.

As a consequence of all that there are -- every silver lining has a cloud, if you like, to mix metaphors, there was no exploration activity in that period at all. Prices were low, there was plenty of gas, there was no incentive for people to go out and find gas. In fact people who were drilling holes for oil and found gas regarded that as a failed hole and immediately covered it back up.

The second period then is this transition period, the period that started I think probably formally with the announcement that Maui reserves were likely to be redetermined and that after Shell's acquisition of the

Fletcher Challenge Energy assets they became aware pretty quickly that the Maui Field was not going to run to its forecast volumes and therefore a redetermination was called.

What's happening now in this period is pretty quickly Maui's supply is winding down, but more importantly from an industry perspective the flexibility is coming to an end. So the Maui field no longer has the ability to ramp up, to allow power stations, to allow New Plymouth Power Station to come on-line very quickly, in the event of a transmission failure or something like that in the electricity market; that swing is ending and because of that more complex contractual arrangements are evolving as we speak.

Demand now exceeds supply and has done not so much in a physical sense, our forecasts will demonstrate that at current levels of demand, we don't think that supply falls below demand until about 2010, 2011 from a physical sense, but in the contract market, demand has exceeded supply now for a little while, couple of years.

The consequence of that then, of those forces is a step change to wellhead prices. Mixed in here, and I haven't identified it as a particular issue on the slide, is the emergence of upstream consolidation. Fewer more powerful suppliers which of course has sped up this step change to wellhead prices. The market that has evolved now in this transition from Maui gas is a market with greater market power for producers.

A decline in gas market demand. Petrochemical demand, or petrochemical supply is a more accurate answer. Prices have moved above the levels at which a petrochemicals

industry is sustainable in New Zealand. Methanex has now not only by virtue of the fact that its Maui entitlements wound down earlier than the other Maui participants because of its consumption, it was ahead of its profile, so its Maui supply wound down; but it simply has, even though it's been pretty aggressive in the short-term competing for gas in the market, Methanex's own view, it's own public view, is that it's not able to sustain petrochemicals production in this country with wellhead prices at the level that they are today. So we've seen Methanex wind down pretty substantially over the last 18 months.

Power generation, we're already seeing now some displacement of power generation, particularly at the less efficient end. So New Plymouth Power Station for example's converting to liquids because the gas and the volumes required by the New Plymouth Power Station is simply not an economic prospect, it's better for people to divert that gas to more efficient power stations where they exist or to alternative uses, particularly if that fuel can be, or the power station can be converted to liquid fuels, things like that.

By the way I'm happy to take --

CHAIR: I was just going to ask if we could interrupt you for a minute because Commissioner Bates has a question.

MS BATES: Yes, I just wanted to ask you about what you think will happen about demand exceeding supply if and when the supply to Methanex stops, because I think it takes about 40 percent of the gas at the moment and one would think that there'd be a whole lot more gas available for other uses.

MR JAMES: At one time it did take 40 percent. At one time gas market demand exceeded 200 petajoules a year, Methanex took pretty close to 100. Today Methanex's consumption, I think I'm right, is less than 40 a year.

MS BATES: Do you know what it is? I think we've been working on a 40.

MR JAMES: It's around 40. Sorry 40 petajoules not percent. So 40 petajoules, the total market is now probably at around 170 petajoules or something like that a year. So what we're seeing is a decline in the market, driven in part by Methanex's reduction -- Methanex are now running one train, I understand, at Motunui, so their consumption is back to about 40 petajoules a year. Methanex could give you this information, I don't have accurate information, but the market forecast is that Methanex consumption will reduce by half in the foreseeable future and then potentially to zero, post their current round of buying. I guess we're assessing still what they may do.

MS BATES: Yes, what I asked you was how you think that will affect the supply to other uses. Wouldn't you expect there'd be more available then for other uses?

MR JAMES: No, I don't, because I expect Methanex to -- Methanex has already secured enough gas for use in 2004 and 2005, partly from the Maui redetermination, the negotiations around Maui redetermination and it's also participated, I understand, in the Pohokura sales round to a limited extent. The announcements that we have seen from Methanex indicate that it's very unlikely to continue to do that. Methanol prices internationally are on the rise again and Methanex's own assessment, from my understanding, is that they'd be unlikely to be a

competitive buyer for gas in the medium term. So as they intend to use the entitlement they have now, or the holding that they have now, post that we haven't factored Methanex in to our calculations. Neither has the Ministry of Economic Development in its future forecasts.

MS BATES: So you're treating it as if it won't continue?

MR JAMES: Beyond about 2006 that's right.

What we're also seeing now is the beginning of the decline that we forecast in energy intensive industrials. There's been plenty of press speculation in recent months that some of these customers, Fonterra, Fletcher Building, Carter Holt Harvey and the like, are contemplating two things; one is a transfer away from gas to other fuels, to wood waste or coal, to other alternatives to gas, or alternatively off shoring, moving production from New Zealand to other jurisdictions where energy supply is perhaps not necessarily any less expensive but more reliable with better long-term prospects.

What we are seeing in this transition then, finally, is the early stages of new exploration. In our forecast we've suggested that -- there are a number of prerequisites before exploration would occur in New Zealand, the first of those has been met, that is wellhead prices have moved to a level now where it's economic to find and develop gas fields.

The Maui contract or contractual issues have been resolved and that's removed a contractual overhang, a level of uncertainty in producers that they would get going and suddenly producers would announce another 100 petajoules of Maui gas at historic prices. So that has been removed and in the last couple of months the

Government has announced a package of measures around tax and royalty and other incentives which has added to the attractiveness, if you like, or removed what explorers have seen as some of the hurdles.

So we're now starting to see the very early stages, the tentative signs of a level of new exploration which will be required if gas is to move back into a balanced supply and demand position.

MR STEVENS: Mr James, what do you see as the key impact on gas pipeline providers as a result of this move from the Maui period to the transition period?

MR JAMES: Uncertainty around the future of gas and the likelihood that demand will decline over time.

MR STEVENS: That is the demand for pipeline services as opposed to the demand for gas?

MR JAMES: The demand for gas -- one is a function of the other. The demand for gas is immediately felt across pipelines. If there are fewer energy intensive industrials then we will haul less gas through our transmission pipelines. That won't necessarily lead immediately to a decline in the amount of gas transported through networks, through low and medium pressure network systems, but that's the smaller part of the business.

From our transmission point of view, any reduction in the petrochemical industry generally, most of Methanex's gas is hauled through the Maui pipeline not NGC pipeline, but NGC hauls gas for petrochemical use. It does for power generation and it certainly -- NGC hauls the bulk of industry gas in New Zealand.

So uncertainty in the market, rising prices, less gas and a shift away from gas, or a shift from New Zealand

off-shore, all of those will impact the throughput of gas through our transmission pipelines.

MR STEVENS: Do you see it as a decline in gas demand per se given that gas is the marginal fuel for a lot of the electricity generation, is it actually decline in gas demand?

MR JAMES: Well this may be a little circular argument. I think initially there's demand for gas which can't be met and then, given the realities of business life, alternatives must be found and once those alternatives are found then demand for gas falls. So one sort of begets the other.

At the moment we're in that phase where demand for gas remains high because capital's been invested in existing gas fired processes. If that demand can't be met in the reasonable period, in this transition period, then I think we'll see the rapid rise of alternatives.

MR STEVENS: Just to pick up on that last point, do you see the 2006 as the cut-off whereby if new fields aren't discovered that there will be a shift away from gas fired power stations for example?

MR JAMES: 2006, 2007, yes, we do, and the reason for that is earlier I suggested that there would be a physical shortfall, the current physical demand supply balance would change by about 2011. Given the development time and approvals, Resource Management Act, things like that, required to get alternatives into the market, we see 2006, 2007 as the end of the window for that development.

So in our view if significant indigenous gas, if enough indigenous gas to match yearly demand isn't discovered and developed by 2006, 2007, then we'll

inevitably shift into a phase where alternatives like LNG and things like that will be contemplated. They change the cost base in New Zealand forever and that will in fact create the very decline in industrial demand that we fear.

CHAIR: I want to just follow-up please on a few points that you've made and I think the Commission wouldn't have difficulty accepting the proposition you stated that New Zealand shouldn't regulate simply because others do, I think that's a perfectly reasonable statement to make.

However, the test in New Zealand is about net benefits to consumers and that's what the inquiry is here to look at. We generally do accept that we have to look at dynamic efficiency concerns, in particular investment incentives. But I wanted to go to the sort of scenario that you've put up and I think at some point you indicated that New Zealand gas markets are different as well, not only is gas different but New Zealand gas markets are different and we need arrangements that are appropriate to the market here.

You've emphasised the difference Maui supply made to the development of gas markets in New Zealand and I think that's probably -- no-one would question that point, but it seems to me if I look at the scenario as you've put it up, while that's an explanation of why we might have been different in the past, the movement in New Zealand is a movement towards markets that look far more similar to what we see off-shore. That still begs the question of whether their solutions are appropriate here, but nevertheless we're moving towards not further away from the dynamics of markets that we see in other jurisdictions with respect to gas markets. I'd just like your comment

on that please.

MR JAMES: Two things, I'm getting to other issues and I agree with you completely. While the Maui period may have made us different, in fact we are now becoming more like other markets, except for one pretty substantial and significant issue, we have nothing like the size and therefore the resilience in the gas industry in New Zealand of other markets and that's a point that I either haven't argued well enough yet or I'm yet to make and it's covered on a subsequent slide. So I do accept that on the face of it -- in this period or this part of presentation I'm simply, if you like, creating for the Commissioners a pretty simplified assessment of where the New Zealand gas industry has been and where it's going. I will come to argue, though, that while the market arrangements look more like other jurisdictions now there's still the fundamental issues of size and fragility if you like.

CHAIR: Isn't that size and fragility related to the history and we see that history unwinding now?

MR JAMES: Yes.

CHAIR: I think there's all sorts of reasons why, there may be all kinds of reasons why the Commission was asked to do this inquiry at this particular point in time and why there was not concern about the use of market power if there was any use of it in the past, but it does pose an interesting question; is the current concern about the potential cost to New Zealand of use of market power and transmission and distribution, does it relate to concerns that it may impede exploration and a resolution of the very supply and demand conditions that we see? It seems to me that that is part of the reason that this inquiry

was sought by the Government at this time.

MR JAMES: Yeah, I think that's right. It's a genuine, valid question, is this an issue? We think we'll be able to demonstrate pretty capably that it is the right question to ask but the answer is no, it's not an issue. The pipeline transportation services are not the principal contributor to the lack of development of the gas industry.

CHAIR: But you would accept that even if it's a contributor, it could have a significant social cost?

MR JAMES: Yes, but I'd argue it's not a contributor. But yes, I do accept as a position, yeah absolutely.

If we then move to this period beyond about what we assess to be 2007, and in 2007 the Maui Field will have effectively gone. Pohokura gas will be delivered into the market. All of the current fields under development will be producing and will be in the post Maui era.

Whether there is yet then sufficient exploration to create a confidence about new gas reserves coming to market is an open question. I talked about increased supply on market power and that's one of the features that we have observed that really started, in our view, with the divestment of the Fletcher Challenge Energy assets to Shell.

There has now been an increasing concentration upstream and therefore, in our view, the ability now for producers to ration gas to market and to more effectively balance supply with demand. In terms of a sort of national resource that might be a good thing, that means that things will be eked out over the maximum period of time, arguably, but it also means that wellhead prices

have moved pretty quickly to the new level. That's been demonstrated in the past couple of years.

A shortened reserves horizon. We now have nothing like the sort of reserves horizon that you see in other developed comparable economies. We've gone from the sublime -- we've actually gone from the ridiculous to the sublime. For 30 years we had more gas than we could ever possibly use and forecasts there were meaningless because there was simply so much of it, to a position today where we don't even have, you know, prudently speaking, we don't have confidence that there's enough supply after about 2010, which is, in terms of gas markets, a pretty short time away.

There is a significant risk now of insufficient indigenous gas, despite the fact that New Zealand is highly prospective. I don't think there is a more prospective region than the Taranaki basin in this part of the southern hemisphere. Given the fact that there are now no significant disincentives in terms of taxation regimes, royalties, that sort of thing, this is a stable political environment, a nice place to live and work. You can't get over the fact, though, that it's a small economy on the periphery of the world, it's a long long way away for people in the gas exploration business at any sort of size and scale.

So the super majors are in the Gulf of Mexico or in the Middle East and places like that. With the decline now of Shell's involvement in exploration in New Zealand, our view is that no super major will ever return to the New Zealand market, it simply isn't big enough and doesn't offer enough scale. Therefore, New Zealand needs to

attract what we'd term regional majors and that's the Origin's, Santos's, people like that, people that are active in the Australian market who would include, embrace New Zealand in that sort of Australasian market.

To date we've seen the entry of Origin, with Kupe; haven't yet seen the entry of any other of those regional majors, so most gas exploration today in New Zealand is being done by junior explorers, people that are typically undercapitalised. While they have the skills and experience to develop for gas, they are substantially undercapitalised.

We see a situation now when we look forward, the high cost base of alternatives. Alternatives to gas are not sensibly wind and things like that, or hydro. New Zealand now uses as much hydro as it's likely to use. Wind cannot be built, or any of the other renewables cannot be built or developed in sufficient volumes to accommodate New Zealand's needs for power generation.

Gas is the fuel that offers the greatest utility and energy intensive, intensity, if you like, to do that, and therefore the realistic alternative to natural gas in the future is LNG. Very high cost base and it would recess the economy, and therefore there's a significant risk then in our view to the New Zealand economy of industrial disinvestment; that's people pulling up stumps in New Zealand and moving off-shore and the loss of key markets for New Zealand producers.

For example, most of the energy used by Fonterra is used to convert milk to milk powder. Milk powder is then exported and in various places around the world it's reconstituted into local products. If that business

became unsustainable because the energy required to do it became prohibitively expensive, it's likely then that that business model could change fundamentally. If New Zealand was in a situation where it was no longer able to export milk powder, for example, it may need to revert to value-added production in New Zealand. That would be a whole lot less energy intensive, but it would also potentially put at risk some of those key markets for New Zealand production, of milk products for example.

The consequence of all that is the significant likelihood of reduced economic growth from this uncertain energy future.

MR STEVENS: Where do you see coal sitting in that equation? You mentioned LNG as a realistic alternative, New Zealand's got a couple of hundred years worth of coal supply; where do you see that sitting?

MR JAMES: From a pure energy perspective we see coal as a reasonable robust alternative but it's still in that high cost base area. The delivered economic and social cost of coal is competitive to LNG. It is not a competitor today for indigenous gas, even for post Maui gas, given the carbon tax and other constraints, the transportation, the dealing with coal crushing and transport and things like that. From an end-use perspective, from a delivered energy perspective it's quite a high cost fuel. So it's here in abundance but it's at the higher cost end and it's at a very high social cost end as well, particularly given New Zealand's commitment to Kyoto and those sorts of things.

All of those trends affect NGC. When we look forward, this is the forecast that we've given our board, this is

our market forecast. We haven't widely publicised this in the markets in New Zealand yet because this is not the sort of information that we would routinely put out. But certainly this is the view that we've given our board. This is our forward view of our gas transmission throughput and it reflects exactly what I've just talked about. It reflects the rapid growth in throughput up until about the end of 2001, mostly built on power station and petrochemicals development.

This transition period that we're in at the moment, unstable period with demand falling off, conversion, for example, of New Plymouth Power Station to liquids, those sorts of factors, reduction in industrial demand through this period, through uncertainty and other things, and then a pretty flat view forward. When we look forward from today out in the future, in real terms we see our transmission throughput declining through all of the foreseeable future, simply because it's a leading indicator of what's happening in the gas market.

I think the point, the substantial point that I want to make here is that it's difficult I think, in your situation, not to take past performance and extrapolate it forward, that's the natural inclination to do. We would argue strongly that past performance in this case is not a reliable indicator of future performance and that future performance for these businesses is pretty easy to be pessimistic about.

CHAIR: When you say it's not possible to extrapolate past performance forward, I think the Commission has accepted these forecasts in its analysis; so what is it exactly you're saying we can't do, because it must not be taking

this profile which I believe we have accepted.

MR JAMES: It isn't clear to me and I'm not suggesting that you haven't made it clear, but it isn't clear to me your treatment of our forecast forward. I'm not sure when I take advice on what's in all the material, exactly how you're viewing, if you like, this sort of step change in prospects.

So I guess at this stage I'm raising the standard warning flag, please don't extrapolate past performance. If you haven't done that, I'm encouraged to hear that, but that's all. This is simply a case where, you know, there are some markets where past performance is a good indicator of future performance. We're simply arguing for the record that this isn't the case with the gas transportation services market in New Zealand.

CHAIR: How long have you been projecting that profile?

MR JAMES: We did a comprehensive strategy review with our board last December. We've been, like everybody else in the gas industry, uncertain these past couple of years about where things would end up, and very heavily involved in Maui negotiations and things like that. So it's been pretty easy to just be focused on what's happening around us today.

CHAIR: Isn't it the case that that uncertainty was about the timing of when the gas supply would shorten, not whether it would? Isn't that a fair statement, it was a question of when Maui was going to be depleted, not whether we would find ourselves in this position? I mean that's been known for a good number of years. I know from my experience on the Commission we look at these markets all the time and we've changed the profile, but we haven't

actually changed -- I mean we've changed the timing of the profile but the actual profile is pretty much what we anticipated, for some number of years.

MR JAMES: That's true. There has been a sting in the Maui tail, though. What's been demonstrated now is that gas industry participants, gas market participants haven't responded, if you like. We've really needed to wait the end of Maui and have it absolutely clear it had ended before people start the normal behaviour.

In other economies with a mix of gas resources what is you typically see is people taking a prospective punt and going and investing in new gas developments before the old one runs out. This has been an elongated process, the redetermination process itself has taken 15 months from the date of the redetermination announcement until the contractual arrangements were resolved. During that time there hasn't been any substantial exploration.

So we've now got sort of an interregnum, a period of a couple of years maybe that we think may stretch to three or four, where there really hasn't been the development activity required to give us a sustainable future. So in our view in any event if there isn't a substantial gas find in the next couple of years then this market will change and will change forever because nobody will come, you know, if this is an LNG cost base future people will sign 20, 25 year contracts in order to support the investment in that. Once that happens that window is closed, we don't think people will come back here and drill and therefore rekindle an indigenous gas market. So we could quite easily go from one prolonged period of low cost stable Maui gas to another period of high cost stable

LNG with a difficult transition between.

So, yes, we have known that Maui was coming to an end. What hasn't happened, and the evidence is there for that, is that people haven't anticipated that by a couple of years and created a seamless change to a new indigenous gas market. That hasn't occurred.

CHAIR: I just wanted to go back to that graph that you put up and I'd just like to ask you; you say you've done a comprehensive review in December of, what was it, 2003?

MR JAMES: 2003.

CHAIR: It's a question I wanted to ask, thought that I would ask you when I had the opportunity, and that is I'm interested in your view on how the company approached its pricing strategy in that pre-2003 review period as compared with how you've approached it since then. So what difference did that review make to the strategies you've taken as Chief Executive in terms of pricing strategies.

MR JAMES: I think two things have come out of that. I think I would argue that our pricing strategy hasn't changed in that regard. In pricing transmission services what we're looking at is a fair return for investors, so that sort of sets the quantum, if you like, of revenue achieved from this business.

We focus then on management of our costs, and I'll come back and talk about costs in a moment. Then the third element of that is then working out what's changed in the market in terms of the nature, the componentry of prices, because pricing structure is as much an issue, in my view, for New Zealand consumers as is the quantum.

Has anything changed substantially since the review in

2003? No, there was already an element, if you like, in our cost base. We had divested our electricity generation assets early in 2003. As a consequence of which we were then left with a share of corporate overhead that had previously been allocated to our generation business. If we did nothing about that, that would simply have created a greater burden on the remaining businesses. So it's a reverse portfolio effect.

So we've worked hard to reduce our corporate costs by that amount of money and more so that we're not imposing that sort of cost burden on consumers at the end of the day through the portfolio of businesses that we own.

CHAIR: So if you look forward and you saw that you had stagnant demand and you were concerned about that, and I assume your proposition is that that has increased the constraints on your behaviour.

MR JAMES: Yep.

CHAIR: But it didn't have any impact in terms of what you thought you could do or what you ought to do in terms of your pricing, in other words your proposition is there was an increase in constraint brought about by market circumstances but it had no impact on your pricing strategy.

MR JAMES: No, I wouldn't say it had no impact.

CHAIR: How did it constrain what you could do in terms of your pricing strategy going forward? What material difference -- and I'm happy to hear from your staff, but I'm interested in your view because we often find, talking to the executives, that it's quite helpful to understand the nature of the business.

MR JAMES: I think the constraint that we observe now, and I

say so later in the presentation, so it's not just something that I thought of; for all of the foreseeable future we now see this business, our transmission business as more effectively constrained by market forces than by any other force. We're now clearly in the zone where actions we take with respect to pricing will have an effect, if you like, in terms of volume and throughput and things like that. So I think our view, what happened since we identified or what's been emerging as the issue is we've reached the limits of elasticity in our view.

CHAIR: You stated, I believe, that you have an overall return that you seek for your shareholders and that that view on what that return is hasn't changed. So you're able to maintain that return through, I suspect, through this period, is that your --

MR JAMES: No, I think we'll demonstrate that we're not able to maintain that return. We seek to, but there's a period ahead of us of significant difficulty in maintaining that return.

CHAIR: But that hasn't changed the overall outcome you expect to get in terms of your pricing structure.

MR JAMES: We've now reached the point where, and again in my view what we're now doing is balancing throughput, returns to investors and price s to customers. So, we've now reached a point where I think that balance is alive. There would have been a point in our history going back when price increases would have been accompanied actually by increases in throughput because the market was growing and NGC's pricing was not constraining the market.

I think we've probably gone now to the other side of the coin. I'm concerned about, when I look forward at

stagnant demand and maybe demand that's slightly declining over the period, we still have substantial cost pressures in the business, the cost of wages is increasing with inflation, those sorts of things. This is a conundrum. So from the other perspective --

CHAIR: Can I just -- I didn't want to preclude your colleague from adding to that, if you were going to go on, so it's up to you if you'd like.

MR JAMES: I'd be happy to.

MR WILSON: Good morning Chair and Commissioners. Just a few things that I'd add to Phil's comments. One is that to me the most significant change that's happened over this period, and I'm talking about over the last year or so, is an increase in the gas price, the commodity price, that I don't believe anyone in the industry anticipated. It more than doubled over that period. I don't think anyone would have anticipated that quantum of change or that it would happen so rapidly.

I don't think there's any doubt whatsoever that when the price moves that significantly there will be a demand reaction. So demand is going to decline. It will take a while to happen and that's just because, as Phil has said, there are long-term investments in the gas industrial, so customers do take a while to react to that kind of change because it is inevitable. To suggest otherwise is to deny the laws of economics.

CHAIR: So the elasticity has become greater?

MR WILSON: There has to be elasticity in the market.

CHAIR: Which has flowed through to your services?

MR WILSON: Yeah. How will that affect our business? I do come into this in my discussion, but my view is that what

you will see happening, and what is already happening is that more and more customers are approaching us asking for special prices. So the delivered price of gas is becoming uneconomic to many customers, or alternatives are becoming realistic. So they're looking for a special deal on their price. Now we have the choice either of cutting some extra special deals or facing the fact that we're going to be losing demand, and what we've seen over the past year or so is that we are engaging in more of this negotiation and that will increase.

What the eventual outcome of is does not necessarily decrease on our return. More likely it's an effect on our asset base and I will get into this in more detail when I give my presentation, but you'll see when we look at our ODV that there's a significant amount of our asset, about 17 percent in fact, that's optimised out of the system and there's a significant amount of asset value that is reduced because of economic value write-downs. In other words the revenue from the market can't support the valuation that we've got and I think it's inevitable that you will see that position shifting over time, recognising the change in the market.

MS BATES: I just wanted to ask you a bit about the breakdown of your market, you've got some initial, in your submissions, 28 percent residential, 55 percent industrial and 17 percent commercial. Is that still where it's at?

MR WILSON: That is correct for the network business. Of course we have a transmission business, the high pressure side of our business, and a network business.

MS BATES: So what's the breakdown for the transmission side?

MR WILSON: The transmission business of course supplies high

pressure gas to the other network businesses in New Zealand, so Vector's market, Powerco's market, Wanganui Gas's market, and actually it hasn't changed greatly over the last couple of years. Into the reticulated market, there is still approximately 38 petajoules a year.

What has changed greatly is the amount of gas going into power generation. For example, if you look at Auckland, the reticulated market in Auckland is around about 10 petajoules, but what's happened since the Southdown Power Station and more recently the Otahuhu Power Station have been built is that that's increased from 10 petajoules, another 8 petajoules to supply Southdown, another 22 petajoules to supply Otahuhu, so we've moved from 10 up to 40. But the underlying market, the reticulated market if you like, hasn't changed dramatically over the past few years.

MS BATES: So if you look at your industrial customers, you'd include those two power stations?

MR WILSON: No, I wouldn't consider those to be industrial customers. I would consider them to be power generation.

MS BATES: I'm just not quite sure -- I'm trying to get a profile of your customer base, so how would you describe it?

MR WILSON: Right, okay. Well I'm talking about the quantity of gas transported on the transmission system now and that's different from the quantity on our networks because our networks are only a small part of the market. On the transmission system in aggregate there's about 100 petajoules transported each year. Of that 100 petajoules about 40, say, is transported into the reticulated market,

so that's gas going on into distribution networks for sale to residential, commercial, industrial. Almost all the rest of the gas is going to major users directly off the transmission system, or power generation.

MS BATES: Okay, thanks, that's helpful to me.

MR JAMES: I'm just aware of the time, Chair, so I'll push on. I'll move through this fairly quickly because I've made some of these points. We argue that gas is different from electricity and telecommunications because importantly it's a discretionary product. This is a product that people choose at the margins. Gas is different in New Zealand to other gas markets because of its low penetration and the consequent sensitivity to market change and I'll show you a chart in a moment. As I just said, for all of the foreseeable future we see that gas will be constrained in New Zealand by market forces, by competitive and other forces.

If I can move on, this is a picture, this is not a chart, simply a representation, that we presented to an infrastructure conference here in Wellington at the end of 2002. These numbers have changed a little, but not so much that we would lose perspective. So what you see on this chart then is down the left-hand axis average demand in gigajoules per annum and across the bottom customer density, customers per kilometre. The intersection of those two things are then shown by the dots.

You see New Zealand at the lower end of the scale here, about 24 gigajoules per customer on average with a customer density utilisation factor, if you like, of a little under 20 customers per kilometre, about 18. The New South Wales market, the average Australian market, the

Victorian market right up there and then the North American market on average.

We then draw a line of best fit to connect all those things. This is arguably a sort of a utilisation curve.

CHAIR: This is for the retail is it?

MR JAMES: Reticulated market. So all of the network markets if you like. This is a common way of describing, for downstream gas markets, of describing network economics and comparing markets. So, what we then did was put an inverse price scale on the right-hand side, just to see whether there was any correlation then between network utilisation and final prices and surprisingly there's a high degree of correlation there now. In the New Zealand case since 2002 wellhead prices have increased by around $3 a gigajoule, maybe a little bit more. Other prices haven't moved much at all in that time.

So in New Zealand's case that blue dot has now fallen below the line, not by a significant amount given the differences in other jurisdictions, but it's an interesting correlation that I think demonstrates, or encapsulates the New Zealand issue in a single picture. That is that we're at the very small end. This is a small market with dispersed networks spread across the North Island, low average consumption.

Remember for all of that Maui period, even though gas was cheap, so was electricity because gas was then setting electricity prices in the market, it was the marginal fuel. So the price competitiveness between New Zealand gas and New Zealand electricity, the differences have been slight; certainly not enough to drive terrific development of gas markets.

Whereas, for example, at the top of the scale in the US, North America, the relativity between delivered gas prices and delivered electricity prices is anywhere between 2 to 1 and 4 to 1. In other words gas is half to a quarter of the competitive price of delivered electricity. In those markets you then see the upward spiral effect, you see people connecting to the gas networks in greater numbers and using gas because it's so competitive and that feeds off itself.

Earlier on I said that I'd worked in the Canberra Australia market. Canberra was reticulated with natural gas beginning in 1981, reticulation concluded in about 1996. Today, the Canberra market sits up above the Victorian market and just below the North American market. So consumption there is over 70 gigajoules power customer, there are now something like 60,000 gas consumers. So in a city smaller than Wellington, total residential gas consumption in Canberra is nearing 80 percent of what it is in the whole of New Zealand. With a single contiguous network, the network economics are just phenomenal.

So again this is a very telling slide in our view because it really puts New Zealand at the very low end, at the fragile end of world gas markets.

Moving on then; regulation in our view should reflect the underlying economics of course and the commercial reality. In our view the arguments put forward in the draft don't, in our view, reflect what is our view of the commercial reality of this industry. Evidence of excess profits is open to significant debate and as Steve said in his introduction, on four or five key issues in the draft any one of those, were it to be our view rather than the

Commission's view, would in my understanding completely negate the excess profits. So that seems to me now to be that we're in an area where we need to be absolutely certain that all of the contentions proposed are in fact the way that they're proposed, because if any one of those things, if one out of four can change this argument fundamentally then in our view that therefore is open to significant debate.

Today gas service providers are constrained by a number of other forces in the market, forces that weren't there in the past. Inter-fuel competition, the gas prices have increased rapidly; the inter-fuel competition between gas and electricity for example, while it was tight in the Maui era is today even tighter. So there are genuine constraints from the marketplace.

There are now another raft of constraints on the gas industry as well, behavioural and other constraints reflected in gas industry governance, the Gas and Electricity Industry's Bill requires the establishment of a regulatory model, a behavioural regulatory model, an operational regulatory model over the industry which the industry is now in the process of implementing.

Unsurprisingly the gas industry model is different from the electricity model. The gas industry has argued for a co-regulatory model, the Minister has accepted that because the Minister has accepted that aspects of New Zealand's gas industry are quite different from New Zealand's electricity industry.

The final point then is one may be tempted to make a regulatory comparison with Australia. Regulation in Australia is, in my view, different and it has

historically been different. Perhaps it's more heavy-handed, that may be a description that people use. I note with interest, though, that only a year ago the Productivity Commission in Australia has expressed a caution about over-regulation, particularly of infrastructure investments on the basis that future consumers may not be well served by, if there is a lack of infrastructure development which is fundamental to the development of the Australian economy; I'd argue that same issues apply here and because of the size of New Zealand's economy are, in my view, even more important.

CHAIR: Can I just interrupt you for a minute on that last slide. You talk about the constraint that comes from the industry, the proposed industry governance regime and I think it's fair to say that some aspects of that regime are pro-competitive and I can see that might be the case. But what I'm not sure is what is it about that regime that puts constraint on NGC in terms of its pricing behaviour, what is it --

MR JAMES: In terms of its sorry?

CHAIR: Pricing behaviour.

MR JAMES: My view is that the constraints that co-regulation or the gas industry company, call it what you will, will impose on NGC, that body will be charged with making recommendations around regulations, or recommending regulations that will then be given the force of law by the Minister.

CHAIR: Those regulations have nothing to do with -- anything to do with prices, revenues or any component of prices and revenues.

MR JAMES: Well, I think, Chair, with respect, our view of our

business is that it's not all about prices.

CHAIR: No, but I'm asking you, is there anything in the proposed governance regime that constrains prices and revenues in any way.

MR JAMES: No, not directly, no.

CHAIR: And indirectly, how would it indirectly constrain?

MR JAMES: Because they're behavioural. What will emerge from that is a code, for example, for access to pipelines, a code for access to distribution systems, agreed arrangements or approved arrangements for wholesale markets and those sorts of things.

CHAIR: But that doesn't in any way constrain the price for that access, does it?

MR JAMES: No, I accept that it's not targeted at prices, but from our perspective it's a constraint on our business, it constrains us from perhaps developing our access arrangements in one way when the consensus of the industry is that they be developed another way. That was the point that I was making.

CHAIR: I don't want you to mistake what I said, the Commission has been always reasonably supportive of those sorts of governance arrangements, we don't have a difficulty with it. All I'm questioning is, does it go to the heart of the matters before us here today?

MR JAMES: Well, I guess that -- the thing that I would say, and we haven't seen the shape of those yet, so I'm forecasting what they might look like; but to the extent that the industry operates under a single scheme, a single access arrangement, a single market scheme and that sort of thing, it makes information much more transparent, it gives people an opportunity to look with far greater

clarity and compare the performance of one business to another. So in my view that will be an indirect constraint on prices in the future. I can't argue that that's the principle on which it's established, but that's my view of what will actually happen in future.

I'd like to talk for just a moment about future consumers because again it seems to me that a trade-off that Regulators need to make is to what extent do we reward current consumers, potentially at the expense of future consumers. Without investment the gas industry in New Zealand will not grow. We believe strongly that net public benefits is the right test for these sorts of businesses. It makes no sense to have a regulatory arrangement which qualifies on one criteria but actually doesn't deliver benefits sufficient to outweigh its cost. That seems to be wrong headed.

So we agree that the net public benefits is the right test but the issue that's been raised about foreign investment, particularly with respect to NGC's business is disappointing and we think that that needs greater clarity. So we would argue that a net public benefits test should include the benefits to the public of foreign investment.

Just as an aside, interesting that on the day that the draft was announced and I think, with respect, it created some uncertainty around foreign investment, NGC's share price fell 25 cents that day which would indicate that, as I make this point, the investment climate is always volatile. So investors are not necessarily on any given day fully informed, they form their views from a whole range of things.

Regulation can alter the balance of interest between current and future consumers, that's the point --

CHAIR: I'll just stop you before you go on. I take it from the comment that the net public benefits test is the right test means that you don't believe the net acquirers test is the right test?

MR JAMES: No, we don't.

CHAIR: Why do you think transfers from producers to consumers don't matter for the purposes of looking at a natural monopoly?

MR JAMES: I didn't say that they didn't matter and I wouldn't argue that they don't matter. But if there is a test to be applied here, then I think the broad -- the best test is this net public benefits test, that's our view, because --

CHAIR: It doesn't take account of transfers at all.

MR JAMES: I'm arguing that the current net benefits test is not adequate to do that, but we would argue that a net public benefits test is a better test because it applies elements of economic efficiency apart from anything else. It would be a --

CHAIR: It's the only thing that applies.

MR JAMES: Yeah.

CHAIR: So implicitly by saying that you're saying that monopoly rents are not a matter that should be of concern in the inquiry.

MR JAMES: No, but equally -- no, I'm not trying to argue that.

CHAIR: But the test that you're suggesting is appropriate gives no weight to that. If you were to give weight to that and treat foreign investment in the way that I think

you're suggesting, it collapses to the net acquirers test. So I just want to be very clear on what your submission is here. Are potential rents something the Commission should or should not be concerned with?

MR JAMES: I don't think that I should have a view on whether or not the Commission should or should not be concerned with rents. Of course the Commission is concerned with rents and I think that's reasonable to do. What I have said, though, is that we shouldn't stop there, because if we simply get a regulatory test that says we've established that there are rents, ergo you are regulated, then we pay no attention whatsoever to the cost to the economy of that regulation.

CHAIR: Let me put this question to you. If we found very large rents, very large, not small, not insignificant, but very large, what you would accept as very large rents, whatever that might be, and the net result of that when you combined it with the proper consideration of dynamic efficiency and other forms of efficiency, would you accept then that that would be a situation where control may be justified?

MR JAMES: That's a hypothetical, Chair.

CHAIR: Yes.

MR JAMES: I think under that hypothetical it would be patently ridiculous to argue that it shouldn't apply. I'm arguing a net public benefit in this context, because in this context we've argued that there are no excess profits, that there are no rents, and therefore in this context that's a test that -- if in this case we end up finding that there is a small amount of excess profit, if we can't reconcile the differences of view that we have,

and that that small amount of excess profits is then outweighed by the cost of regulation to the public, I'm suggesting that in that circumstance, that would be an unfortunate outcome, that would be --

CHAIR: The net acquirers test takes account of that. I just wanted to clarify one thing; that is the Commission believes the test, and the Commerce Act is the net acquirers test, that is the test this Commission is required to base its recommendation on. That test does take account of both the efficiency arguments, the cost of regulation, both direct and indirect, but also transfers, so any rents that we find. And I accept your proposition that you think those rents are non-existent and that may be the outcome, I've got a completely open mind to that. And in the net acquirers test this issue about foreign investment does not come up. This net public benefit test is a test that is normally done in an authorisation environment. It is something we have looked at as we were instructed by the Minister to do so and to provide that information.

In that test we have court precedence about the treatment of foreign investment where -- not foreign investment, but how you treat any rents that might go off-shore, and so we've done the analysis because we were directed to do so. But as you will be aware we have certainly cautioned the Government about that there would be further costs associated with basing a decision on that because the treatment of foreign transfers that go off-shore, there's a different effect on different companies, just purely because of their ownership structure.

So I just wanted it to be very clear that that is the

basis on which the Commission did the analysis, but the Commission is very clear that its recommendation will be based on a net acquirers test.

To sum that up I'm taking it that you don't have difficulty with that but your proposition is there are no rents being earned and therefore that part of it drops out.

MR JAMES: I don't have a difficulty with it, no.

I should conclude. In concluding then, if I could summarise the points that I've attempted to make. The New Zealand gas industry is small and given the position it finds itself in today and looking forward faces a number of very significant challenges.

The second point is that any form of control therefore would, in our view, require robust evidence of excess returns. This is such an important issue for this industry that it's absolutely vital and I know that we agree with you there that there be robust evidence of excess returns before a recommendation for control is given.

And last point, that the Commission needs to be certain of the benefits of control, particularly to future consumers. Thank you.

CHAIR: Thank you very much for that Mr James. I'll just see if my colleagues have questions before I turn to our external experts.

DR LAWRENCE: I'd just like to clarify some things on the graph you had up, the one titled "utilisation is a key issue". Firstly I just want to clarify what "average demand per annum" you have on that graph is; is that just residential average demand or is that total average demand

for your distribution component?

MR JAMES: 24 gigajoules, residential. The purpose of that was to demonstrate differences in network economics, and what accompanied that -- it's no longer relevant because the prices have changed -- but what accompanied that was a table and the heading of that table was at first glance residential prices appear high in New Zealand and they do. If looked at from a final price point of view on the face of it New Zealand prices are very high. We sought to explain some of that and suggest that the reticulation component, the distribution component which was the larger single component was being driven by utilisation issues.

DR LAWRENCE: The message I take from that graph is that New Zealand and the US are really at very opposite ends of the spectrum. So would it be fair to say that you'd need to be pretty cautious of drawing implications about the New Zealand system from US information?

MR JAMES: Yes, I certainly would. I wouldn't -- one of the difficulties in this business, and I'm sure that this is something that happens all the time with respect to inquiries, is that it's very difficult to draw concrete conclusions from anything that happens anywhere else. The gas industry is no different. We've -- and I'm talking about in my past, I've been involved in pretty extensive benchmarking exercises using FERC data and things like that, full of difficulty, full of inconsistencies and different numerators and denominators and all sorts of things. So one attempts to draw from that trends and directions rather than concrete conclusions.

DR LAWRENCE: Would it be fair to say that a large part of the difference there that you observe is due to particularly

the climatic effects and probably lifestyle effects and so forth in the US relative to New Zealand?

MR JAMES: Well, I guess what I was attempting to draw from that is regardless of what things drive circumstances in the first place. We could argue that New Zealand's culture around energy is different, its climate isn't different from New South Wales for example.

DR LAWRENCE: No, sorry, I was talking about relative to the US.

MR JAMES: Well, the US, particularly markets like Northern Illinois and thinks like that are under snow for seven months of the year so certainly their climate is very different. It could be argued that their energy consumption culture is different as well. That isn't the point, I wasn't trying to explain why, I was trying to explain what, you know, what actually happens.

What actually happens is when you get the function of average demand and the price that comes from that, the three things are interconnected. High customer density, high average consumption, low prices relative to competition gives you that snowball effect, things just get better and better, it's the network effect. We're at the other end of the spectrum, we haven't latched on to, for whatever reason, that snowball effect. That's not happening in the New Zealand markets and in my view it's unlikely to happen ever, we simply haven't gained the critical mass.

DR LAWRENCE: Surely penetration is increasing in New Zealand over time, I mean it's an ongoing process. It's fair to say that you're certainly a less mature market than the US and you may never get to the utilisation levels and so

forth given the climatic differences, but certainly it would be -- you would have to agree that the New Zealand market is not completely static in that respect.

MR JAMES: No, it's not completely static but at the rate of current market growth I think it's unlikely that we'll ever reach -- if I go back only a decade or 15 years in New south Wales, the New South Wales market or Sydney market average consumption was 19 and a half gigajoules or something like that. What's happened in the Sydney market, for example, through this sort of 15 year period, is there's been a remarkable change in the competitiveness of gas and the attraction of high consumption gas appliances.

So central heating has taken off like never before in the New South Wales market, as have instantaneous water heaters, continuous flow water heaters those high consumption devices. Today Sydney average market consumption is more than 27 gigajoules, there's been a phenomenal change in that time. Consequently the real price of gas has been declining in the Sydney market for all of that period there.

Is no such trend going on in New Zealand? No such trend. The cost of primary energy, increases in wellhead prices have wiped out all of the sort of so-called utilisation gains from increasing penetration over this past 15 year period. It's as if the Maui period never existed from a gas network point of view.

MR SELL: A question for you, Mr James, first of all just a quick follow-up question on the same graph, do you have a similar graph for the whole of the distribution network? Because I guess the question this raises in my mind is

from other stats you've provided I think residential's only about 20 percent of your distribution volumes. So I just wondered what this graph would look like if you did it over the whole of your distribution network, I don't know if that's available or not.

MR JAMES: We haven't done it, but the data is available, so it could be done. Again it was done for a particular reason, it was done to add some other information to a conclusion that was being drawn that residential prices in New Zealand were high because network prices were high and for no other reason.

When you start to put industrial customers and -- if you take the whole of the distribution system, for example, then what you introduce is very substantial differences from market to market. If we took -- if we compared the Melbourne market with the New Zealand market, for example, Melbourne is the heartland of industry in Australia so even on distribution networks you'd get a much higher proportion of industrial and commercial demand. I'm not sure that the conclusions you'd reach at the end of that would be worth anything, but the data is available. We haven't ever done the graph.

MR SELL: I just thought that it may be helpful to the Commission, but I accept that there may well be some caveats or explanations that may well need to go with it. Just a question of clarification; NZ on there, that's the whole of New Zealand, it's not just NGC's network.

MR JAMES: I don't recall.

DR HODGSON: I think it was an aggregate of the information disclosure information for network companies but I'm not sure off the top of my head, it was a couple of years ago.

CHAIR: Can I ask you to clarify that in cross-submissions please.

MR SELL: The main area of questioning I have I guess is around evidence for the level of competition which you've talked about quite extensively and I guess you talked quite a lot about the quantity side of that, not very much about the price, the relative pricing aspects of that. Even looking at your submission you refer to the ACIL Report which I don't have in front of me here, but there's not a lot of information in your submission on the relative economics of different fuels. There is some information in there which I believe, if you'll excuse me, is in a confidential section of it, although I think the conclusions from that I'm sure are not particularly confidential because they're a matter of public record and it does show that the costs of LPG are considerably greater than reticulated natural gas and that electricity is somewhat greater than the cost of natural gas.

I think that data might be a year or two out of date, but I think it would be very helpful to the Commission if you were able to provide some more robust data on that aspect and if you had any comments on that now I think we would be pleased to hear those as well.

MR JAMES: Only that we've just concluded another review of inter-fuel competitiveness, to the extent that that's not in this submission it can be made available. I only looked at that last Thursday, so that's quite recent. And you're right, those prices have changed somewhat in recent times, so we can make that available.

What you'll see from that information is that the advantage that gas had historically is being eroded. We

still have price competitiveness between electricity and LPG at residential levels between coal and, well, not with coal, but that's a straight fuel price, but fuel oils and things like that at industrial level. So I'm happy to provide that information. Of course, economics is not what most people participate in when they make decisions about fuel at home or appliance choices and things like that, it's one of the factors, but the whole raft of factors that people take into account.

MR SELL: Sure. I think that would be helpful.

CHAIR: Yes, if we can have that in cross-submissions please. Do those other factors tend to make the substitutes more attractive or less attractive, non-price factors?

MR JAMES: I think if we just took it on price factors natural gas would be a bit less attractive. Price is one thing. There's been two years now of publicity about Maui running out and uncertainty about future fuels. We've seen our rate of network connections slow significantly, it's starting to pick up again now, but they're not at historic levels, so have to assume from that that the level of publicity around Maui gas and concerns that gas will run out are fuelling -- perhaps that's a poor choice of word -- but are responsible for people deciding not to connect to gas who otherwise may have. Maybe they've just delayed that, I don't know, but certainly if we look at the raw numbers and we look at what was happening contemporaneously then there's been a lot of uncertainty in publicity, negative publicity around natural gas.

MR SELL: I have one other question. That is around the area of elasticity that you quote in your submission. Because there seemed to be some, to me anyway, to be some

contradictory statements around that. We've heard, for example, you saying that the market is very competitive at the moment and you're right at the point where, at the price point where there's a lot of action I guess in the market and a lot of price sensitivity.

The Commission has used an elasticity of minus 0.3 which you've described as low in section 6.1 of your submission, and I think one of the other submissions that we've been provided has come up with an even lower price elasticity than that. You have mentioned in section 6.2 of your submission that you believe that in regard to the allocative efficiency calculations there would be only very limited increases in quantity in response to changes in prices. So we seem to be getting some slightly mixed messages there. I wonder if you'd like to just clarify some of those.

DR HODGSON: I guess what we're talking about here is a distinction between commercial reality and economic paradigms that are used for models such as these. I think it's fair to say that the Commission's model assumes a quantity reaction to price in claiming that if the price was lower there'd be more gas to be transported.

The practical reality is that the amount of gas in the country is limited and therefore, if anything, it's not going to be transported on our system if it potentially is put into alternative uses. It could be flowed down, say, the Maui pipeline into Huntly Power Station, it could be used in petrochemicals.

So the point here is not really, if you like, the bits in the submission, when we are getting into dealing with the economic paradigm that the Commission is using, the

points that Phil and Ian will make are about the commercial reality and, you know, we don't sit around and make economic estimates of elasticity for commercial purposes, people are out there in the market addressing the prices of competing fuels.

So I accept the point that the information in the ACIL Report's out of date, it's just not the way we approach business in the practical sense.

MR SELL: Can I suggest that elasticity applies in both directions I guess and that maybe even if lowering the price didn't lead to an absolute increase in demand for gas if there was a relatively significant elasticity then at least a lower price might lead to less of a decrease in gas quantities than you've been projecting, would you see it acting in that relative way?

DR HODGSON: To put this in context, if we take the average transmission price which is about $1 a gigajoule, if you cut that in half, 50 cents, the commodity gas price has gone up in the last couple of years by $3 to $4 in some case, end-users are facing. So you're potentially looking at a very insubstantial effect as compared to the effects of the actual energy component and also the effects of uncertainty and there are people out there, and there's an example, which isn't in our submission but it's come through the sales force, of someone actually looking for a heat load and they've got to replace their equipment, they've looked at it, they've said gas is uncertain, we're making an investment for 10 years, we'll put in electricity for a heat source and this is a major, like 80 TJ load.

So people out there are making decisions for a

variety of commercial reasons and it's very hard, if you like, and we accept that it's hard, we're not just sort of having a go at the Commission's model, but it's very difficult to translate the commercial reality that our sales guys are facing and people like Ian are facing into an economic model and we're going to get up -- we try and translate it, but we get to a point where practical reality sort of diverges from economic modeling.

MR SELL: I accept it can be difficult to get firm estimates of elasticity and you often see quite a range. But I think it would be helpful if you had more to add in your cross-submission to suggest to the Commission what you believe elasticities for the transmission and distribution services you provide might be, or a realistic range for those, if you're able to do that.

DR HODGSON: We'll endeavour to get some assistance to do that, but -- yeah, we'll try.

CHAIR: Now we'll turn to Commission staff and I'll start with Dick, did you have any questions Dick, no. Sue, any questions?

MS BEGG: Just a question on investment. You were predicting declining demand and then flat demand for transmission. I just wondered what the implications of that are for new investment in transmission. Obviously you'll need to maintain the network. I note in your submission you talk about at the distribution level how, even if in the face of flat demand you need new investment because you have customer churn and you're trying to attract new customers as you lose other ones, I just wondered how that works at the transmission level of the market for investment.

MR WILSON: I think you're quite right to point out that the

two situations are different and I do cover some of this in my submission. On the transmission pipeline generally the situation you're facing is that you have a pipeline dedicated to some particular geographic group of customers. Often there's one major customer amongst that group. If, as in some of the examples I'll present to you, you lose that major customer what happens is that you have to look at either optimising down the size of the asset supplying that customer or taking an economic value write-down on the asset so the effect is reflected through the asset valuation.

On the networks it's not so straightforward because generally the network of pipes is supplying a range of customers and it's hard to identify often which particular pipeline is delivering gas to that customer. So just technically it's more difficult to make that adjustment, but also there's generally more possibility that you can replace that customer with others.

On the transmission system usually the situation you're facing is that the pipeline is dedicated to that geographic area and there isn't much opportunity to substitute and obviously there is no other economic use for the pipeline.

MS BEGG: So in your projections of flat demand you're talking there that you're losing customers, are you anticipating that you'd invest to capture new customers so that your overall demand is pretty flat as forecast, or are you suggesting there's a net loss so investments -- well you're losing existing users of the pipeline but you're not going to be investing to capture new customers?

MR WILSON: On the networks, and I cover this, we are still

growing quite significantly, but most of that growth is off new reticulation, in other words we're having to continually reinvest in the network to achieve that growth.

MS BEGG: And on transmission?

MR WILSON: On transmission the situation is a little bit different. What we're finding in transmission is that significant, substantial investments are driven by a number of changes in the marketplace. Only one of them, for example, being new consumers coming up. I'm going to be talking about, you know, what the effect, for example, of the Maui pipeline becoming open access will be to our transmission system and that will affect demand inevitably on several of our pipelines. So it's hard for me to make an exact parallel to the distribution situation.

MR JAMES: I'd like to add a comment to that as well and just consider a scenario. We are applying at the moment for a designation for the northern route from Rotowaro to Auckland in anticipation that one day Auckland market demand may grow to the stage where it exceeds the capacity of our current pipeline. So one of the things that I'm considering right now is if investors were faced with a proposition seven, eight, nine years from now that Otahuhu C would be built and therefore that market would exceed the capacity of our northern line, they need to invest in a new line, so in a parallel line in that route, but at the same time they've seen write-downs or revaluation s that come at economic cost to investors over other parts of our system.

I'd suggest that's not going to be a straightforward economic decision for investors to make and that's exactly

the sort of challenge that this business is faced with now. It's not all about simply taking what we've got forward and looking at every investment at the increment, at the margin. Our investors are going to say okay I can invest there and get a return of whatever, I can get my desired return but at the same time as a business this business is faced with some asset stranding over here or less valuable asset over here, that's the mix. That mix hasn't been previously experienced. It hasn't been experienced in NGC's history to any significant extent. It's very likely that it would be in future. Much more likely in our view that it will be than it won't be.

CHAIR: I might just interpret here, we do need to take a break.

MR JAMES: I do apologise.

CHAIR: No, you've been very good to answer any questions. Can I just ask if there are further questions on Mr James' presentation? **[No comments]**. No. So when we come back from the break we'll move on to the next piece.

I'll just give you an updated timetable if I can. It's my intention that we'll reconvene at 20 past, we will then go until 1 o'clock at which time we'll take the lunch break until 2, we will then resume at 2 and continue until approximately 3.45, take a 15 minute tea break, resume at 4 and hopefully be finished by 6 o'clock, if we need that much time, though we will continue if we need to in order to complete the submissions from NGC. Can I just ask NGC if that's an acceptable programme for the remainder of the day?

MR BIELBY: That's fine thank you.

CHAIR: All right. We will now adjourn and I would, though,

like to thank Mr James, it is very valuable to the Commission to be able to speak directly to the Chief Executive and we do also take it as a good sign that this is the first time you've been before us, but we are very grateful to you, it is helpful to us to get the view from within the organisation. We get value from the experts but it helps to get the input from people with industry expertise. So thank you very much. We will then return at 11.20, thank you.

Adjournment from 11.05 am to 11.25 am

CHAIR: I'd like to reconvene this session and invite NGC to proceed with your submission please.

MR BIELBY: We now come to Mr Wilson's presentation.

MR WILSON: Chair and Commissioners, today I'd like to give you an insider's view of the pipeline business. I'm not an economist or a lawyer, I'm a commercial guy trying to make good investment decisions for NGC. So that is the perspective I'm coming from and what I'd like to leave you with today is a clear mental picture of the kind of commercial landscape we're operating in. I'd like to talk about my view of gas as a fuel, about the investment risks to the transmission and to the network business and about the importance of innovation.

Just a reminder that NGC's transmission business essentially consists of pipelines radiating out from the Maui pipeline. NGC is operator of the Maui pipeline but the Maui pipeline is owned by the Maui mining companies. The transmission system delivers gas into a number of distribution systems, largely owned by Vector, Powerco, Wanganui Gas, but the areas marked in yellow on the diagram there are NGC's distribution systems. So

generally we reticulate gas in primarily the Bay of Plenty and the Waikato, but also south and north of Auckland in Gisborne and down in Kapiti.

CHAIR: Can I just ask you a question, and if it's confidential you'll tell me, but you operate the Maui pipeline; is it the intention that you will continue to do so under the arrangements that are currently being negotiated for the future?

MR JAMES: Perhaps I should answer that Chair. We have proposed to the Maui mining companies that we project-manage the access arrangement on their behalf in conjunction with our own, and that we then, for a limited period, become the system operator until that system is established before that aspect of it potentially goes to tender. So that's a new piece of work. In terms of the continued physical operation of the pipeline that may come up for some sort of unusual review. It's a process that we've undertaken for many years and I would see that that would continue in the foreseeable future.

CHAIR: How is it, again you'll have to tell me if you can't discuss this here, but in terms of the terms and conditions of that access, other than that which may be agreed in advance, is that something -- you will receive those terms and conditions or you will propose them to the owners of the pipeline?

MR JAMES: No, the MMCs are developing their own proposed access arrangement, they're in industry consultation now.

CHAIR: Sure, but it doesn't actually yield a price, does it?

MR JAMES: Not that I'm aware of, no.

CHAIR: So that price will be set by the partners or will you be involved in that?

MR JAMES: If we're involved in that it would only be as a consultant. It will be set by the owners in my view. We've argued -- sought to influence them to as far as possible make the pipeline system's access arrangements similar so there's an industry benefit and notwithstanding some constraints that they have we're attempting to do that.

CHAIR: Okay thank you.

MR WILSON: The Commission has characterised gas in New Zealand as a commodity. It is true that some features of gas in New Zealand are like a commodity, certainly specification gas is fungible. So providing gas is treated to the New Zealand standard NZS 5442. Regardless of the field that the gas is sourced from it can then enter the transmission system and it's indistinguishable from any other gas in the transmission system at that point.

But there are certainly some aspects that are unlike a commodity. There are few sellers, there's no spot market, it's a small market and gas is generally bottom sold under long-term fixed term contracts. So these are more like the features you would expect from an immature market where investment and market risk is high. So I would characterise gas more as a marginal fuel than as a commodity.

If we turn and look at the supply side uncertainties to the transmission business, it's well known that the Maui Field is depleting early and we've talked about that a little bit this morning already. The replacement options of course are a number of small fields, a move towards liquefied natural gas, LNG, or decline of the

industry.

Looking at the first option, more small fields, generally I think people would agree that that would be a good result for the industry and good for New Zealand. Whether it's good for the pipeline business or not depends on where those fields are. The transmission system is engineered to accommodate gas coming in at Taranaki. In Taranaki there's a dense mesh of large diameter pipelines and from there the gas is piped out to the extremes of the system north and east and south and the pipelines there are sparse and stringy. So Taranaki really is the heart.

Whether it's good news or bad news for the transmission system if more fields are found really does depend largely on where those field are. If the fields are in the southern ocean or off the Wairarapa coast, then the transmission system will have to be re-engineered, there will be considerable investment in that.

A similar situation arises with LNG. It is true that LNG would secure the long-term future of the gas industry, but you might expect that whoever does invest in the LNG infrastructure they would be investing perhaps up to $1 billion, they would probably want to see that infrastructure close to the demand centre. So perhaps close to Auckland rather than taking it on-shore in Taranaki. Again that's like moving the heart of the transmission system to somewhere else and that would require again some major surgery.

The decline of the industry, of course, would not be good for anyone, so I won't even go there.

Perhaps one other thing to say before I move off talking about the alternatives to Maui, and that is to say

that our pipeline assets are very long lived assets. We accept that they will have a life of 65 years and to get a return on those assets and to earn the cost of capital of those assets we really require to have them economically in use for 65 years. If it is the case that there's a major reconfiguration of the pipeline system, then there's the possibility that some of those assets might become redundant or not economically used or used in some different way, or we might have to reinvest to achieve the same result.

So although what we're experiencing now is possibly a rare event, after all the Maui Field has lasted 25 years, it's not all that infrequent in terms of the life of the pipelines which are 65 years. You would expect if we're replacing with smaller fields that the changes will be more frequent in the future.

Turning to the Maui pipeline and access to that pipeline, this also could be good or bad news for NGC, depending on what the final outcomes are around those commercial arrangements. If we go on to the next slide you'll see that for most of the route of the Maui pipeline one of NGC's pipelines, our Kapuni to Rotowaro pipeline runs in parallel. Also one of our pipelines runs from the Kapuni gas treatment plant more or to New Plymouth. We call it the Frankley Road pipeline. We fully expect that when the Maui pipeline does go open access the gas flow in our Frankley Road pipeline will reverse. Currently gas flows down that pipeline towards Kapuni, it's very likely to reverse and flow from Kapuni into the Maui pipeline. That's simply a result of more gas now being transported from the south.

We have Rimu gas coming in close to Hawera and that resource is increasing. We now have three trains and full operation at Kapuni, so there's more gas being produced there and of course out into the future we expect the Kupe gas to be coming on-shore somewhere in that region and that gas will also need to be transported up the Maui pipeline because the NGC pipeline is probably too small.

MS BATES: Excuse me, if I could just ask a question on a sort of related area. It occurs to me now. One of the earlier submitters was concerned about the prospect of when open access comes, that the arrangements will be common carriage rather than contract carriage. Is that a concern of your company?

MR WILSON: There are some aspects of the Maui access regime that are of concern to us. We have a particular vision of how access should develop between the two pipelines. We think probably this whole argument about common carriage versus open access is a misguided argument. To us the really important thing is that the access regimes are compatible, that they're as seamless as possible, and also that whatever we do in terms of access tries to encourage the development of a spot market for gas.

MS BATES: I'm asking you about this because you identify it as one of the non-commodity characteristics of the New Zealand gas market, that long-term fixed price contracts were the norm. It seemed that the earlier submitters were lamenting the fact that if there was a common carriage regime on the Maui pipeline, that it wouldn't be possible on that to secure the long-term fixed price contracts and that that would cause uncertainty and therefore lack of investment.

MR WILSON: Yes, I understand that argument and that certainly what we found on our pipelines when we were moving towards our access regime. It was very strongly argued by those retailers that were interested in developing power generation that underwrite the investment in power stations they needed long-term secure contracts and their view was that a long-term secure contract required them to have access to capacity, to be able to buy capacity on the pipeline and certainly common carriage doesn't offer them that option.

MS BATES: What do you think about that argument?

MR WILSON: I think that's a valid argument, that I'm sure when a party is trying to underwrite the cost of building a new power station they would want to eliminate as many risks as possible and certainly the risk of not having capacity available when you need it is a significant one.

MS BATES: Thank you, I'm sorry for taking you a bit off track.

CHAIR: Does NGC provide for common carriage? Is that the basis of your access?

MR WILSON: No, our access regime is based around selling capacity, so it's a contract carriage regime. In my view the two are not necessarily -- it's not necessarily an either/or situation. I don't see any reason why the Maui pipeline, for example, couldn't have a common carriage regime for some of the gas transported through it, but also sell off some of its capacity under contract carriage.

If we go on to the next slide I talk about the demand side uncertainties in the business. There are a range of industrial trends that we've seen over the life of our

pipelines that have had varying affects on the value of those pipelines. We've seen the electricity industry deregulation. Generally I think the deregulation of the electricity industry has been positive for the pipelines. Certainly there are more power stations now and there are a number of co-generation stations.

But there are aspects of the industry deregulation that might be negative for the gas industry and one of those is the fact that gentailers might not be so motivated to encourage the development of the use of gas off distribution networks. Certainly we've had some gentailers coming to us saying that if our prices aren't right they would equally well just abandon the reticulated market and put gas into their power stations.

There's been a major dairy industry consolidation. This has generally been negative for the gas industry. Some dairy factories have specialised. For example, the Hautapu factory has specialised on casein cheese and whey protein. Others like the Morrinsville factory did close down for a while and now specialise in butter. But by far the most common thing we've seen is dairy factory closures, Stratford, Pangarehu, Midhurst, Okato, Maungatapere, all these are dairy factories that have closed.

It's true that there has been a major increase in demand for gas and certain dairy factories. For example, in Anchor's Te Rapa's dairy factory, Contact Energy built a co-generation plant there which we do now supply through our pipelines, but the Te Rapa dairy factory is just a stone's throw from the Maui pipeline, so the revenue from that is relatively small. It's a bypass pricing

situation.

It's also true that there's been huge growth down at the Kapuni dairy factory in Hawera but while that used to be supplied off an NGC pipeline it's now supplied from a dedicated pipeline built by Shell and Todd from Kapuni. So generally the dairy industry consolidation has been negative for the pipeline business.

Similarly the development of the timber industry has been very disappointing. Many of the expansions of the pipeline system have been optimistically based on what has been called the wall of wood and the graphic there from the timber industry board shows how wood production is forecast to increase over the next 30 years in the various regions. This was certainly a significant consideration for us, for example, when we built our north pipeline, the pipeline that goes to Whangarei.

There were some major customers in Northland which were on coal that we believe that would convert to gas and generally speaking they did convert to gas when the pipeline was built there. Shortly after the pipeline was commissioned we lost several of the major meat works, the Weddel(?) works and the Affco works. Pilkington glass, one of the major users up in Whangarei closed down.

The development of the timber industry which was anticipated hasn't eventuated and there have been a few reasons for that. One's technological, just the fact that the technology has now developed so that waste wood can be efficiently used at timber plants. So waste wood has emerged as a significant competitor to natural gas. Another is that the economics for log exports are quite favourable, so rather than doing any processing whatsoever

in New Zealand, timber is exported as logs.

MR STEVENS: Can I ask you a follow-up question on that issue. Do you see it as a result of the high energy costs as to why they're not value-adding in the timber industry here?

MR WILSON: Energy cost will certainly be a factor, I don't think there's any doubt about that.

MR STEVENS: I guess you'd be aware as well as the Commission the recent announcement by Norske Skog to close down some of their lines as a result of energy cost issues and just really picking up on Mr James' earlier comment on the possible flight of heavy industry and whether you had any views on that.

MR WILSON: I think I mentioned before that in a very short period of time the price of gas in the market has escalated quite rapidly and fairly dramatically. It's inevitable that there's going to be demand reaction.

MR STEVENS: I'm surprised in the wood waste area. We're not aware of significant wood waste being used for energy in the timber industry and certainly be interested in any data that you have in that area.

MR WILSON: We can certainly provide that, yes. A good example would be the Jukken Nishu plant in Gisborne. I do talk about Gisborne a little later on, but Gisborne is another area where it's anticipated that a lot of timber is going to come to maturity and require to be treated, or exported as the case might be. Certainly it was one of the considerations when we were building the pipeline to the Gisborne, but as things turned out the Jukken Nishu plant is now substantially powered on wood waste.

MR STEVENS: I think at the time, though, Jukken Nishu announced they were on a take or pay contract.

MR WILSON: That's right, yes.

MR STEVENS: So how would that have affected that?

MR WILSON: I think when we get to the graphs you'll see that while Jukken Nishu were on their take or pay issue they did use up their gas entitlement but as soon as they got clear of that contract they started using wood waste.

MR JAMES: If I could just add, Commissioner Stevens, it's hard to see, and Ian has suggested that energy cost inputs may have been a factor, but it's hard to see if we look back to the beginning of the Maui period in a 25 year period where New Zealand energy prices had been at the lower end, right down the low end of world energy prices and a significant value-added timber industry hasn't evolved in that period. It may be an argument now that it's not going to, but it hasn't. So while energy prices may have been a factor, I can't say what were the key drivers, but I think I could say with confidence that energy prices weren't the only constraint to the lack of value-adding development in the timber industry.

MS BATES: I just have a follow-up question at this point. I'll address it to either of you, Mr James or Mr Wilson, but Mr James I understood to say, at this present point in time demand exceeds supply.

MR JAMES: [**Nods**]

MS BATES: We're talking about industry trends which you're talking as to what has happened rather than what will happen as a result of deregulation and other matters. Am I to take from putting both those two together that the effect on your business has -- you haven't actually had an effect on your business with the industry trends, but you're predicting there will be. If demand exceeds

supply, one would expect that you'd be all right, if you get what I mean, that you hadn't suffered any detriment as a result of these industry trends overall because demand exceeds supply. So I'm just asking you about that.

MR WILSON: Sorry, obviously I've failed dismally to communicate the point here.

MS BATES: Well maybe I've become stupidly confused.

MR WILSON: No, my point is that in just about every one of these instances there's been some occasional upside for the pipeline business. Generally it's been negative and that's why we have made some investments that while they looked very bright prospects at the time that the investment was made, they've turned out to be bad investments with the wisdom of hindsight. A good example would be the pipeline across to Gisborne and to a lesser extent the pipeline up to Northland.

MS BATES: So you've made some investments which are not going to pay off you think, but in terms of the quantities of gas you've sold, does it remain the same or more?

MR WILSON: There are two issues. One is the quantity of gas transported through the pipelines and the other is the price that the gas that's transported for.

MS BATES: Yes, I understand that.

MR WILSON: Phil did put up a graph earlier on that showed that the volumes of gas in the pipeline had actually increased substantially for a number of years. Largely that was driven by the increase in gas fired electricity generation.

MS BATES: That's the first graph that goes **[indicates]**

MR WILSON: That's right, yes, but the indication is that the trend is turning there now.

MS BATES: We're not far into it though are we?

MR WILSON: Not far enough into it I think to call it a trend, and certainly if there is more gas fired generation, for example on the back of the Kupe field, or on the back of some of the other fields that are coming on line, you would expect that that volume of gas transported would increase. But generally speaking what we found is that, and if you look at where all the power generation is at the moment, it's either along the Maui pipeline or it's up in Auckland or it's very close to the Maui pipeline. So for our transportation business, and remember we own these pipelines, these long stringy ones that go all the way up to Northland, all the way over to Gisborne, down here to --

MS BATES: Kapiti.

MR WILSON: Sure the volume might increase substantially but the actual --

MS BATES: You won't be able to be price competitive with the other pipeline.

MR WILSON: Yes, that's right. We won't be deriving a significant economic benefit is what I'm saying.

MS BATES: Thank you.

MR WILSON: I think we got to talking about the meat industry which also generally has been fairly negative. There are a number of meat works around the country which are supplied with gas pipelines but they've generally closed down. Often we're still supplying the community that built up around those meat works. The Patea Freezing Works would be a good example, we still have a pipeline lateral going to Patea, we still supply gas there, but the demand is very small compared to what it used to be.

There have been demographic trends. In our submission we show the effect of the shift in industry to Auckland, the effect of that on the Hutt Valley. I should have pointed it out on the previous overhead, but you might have noticed that along the south pipeline there were various loops in the pipeline, so areas where alongside the original 8 inch pipeline we've added 12 inch pipeline in fact. That was done back in the 1980s when the demand on the south pipeline down here in the Hutt in particular was growing quite dramatically. We made those investments then obviously in the hope of earning a fair return on them, but now those investments are optimised out of the asset base, because the demand in the Hutt Valley has collapsed and instead of having an 8 inch pipeline and a 12 inch pipeline in our asset base they've been optimised down to a 12 inch pipeline.

There are also various other demographic trends, but point I'm trying to make is that customers on the demand side always have alternatives, they can move their factories, they can switch their fuels, they can change products, they can save energy, they can invest in energy saving, but for the pipeline there's no alternative. Once that pipeline is built to a particular geographic location, either we earn an economic return on it throughout its life and we need to do that so that our investors, our shareholders get a return of their capital and get a fair return on the value of that capital during the life of the pipeline, or we have economic write-downs.

MS BATES: Can I just come back to that Maui question, the pipeline that parallels Maui at the moment is a pretty lucrative one for you, is that what you're saying?

MR WILSON: It's very good for us at the moment, in fact that pipeline is one of our few pipelines that's actually operating at capacity. So we actually couldn't put more gas down that pipeline if we wanted to. But that's a very recent development. It's only very recently that the value of that pipeline has been written back into our asset base. Previous to that the whole pipeline was optimised out of our asset base so we were getting no return whatsoever on the value of that asset.

MS BATES: So you are going to, you think, lose a fair bit of business when Maui becomes open access?

MR WILSON: There is the potential to do that, either that or it might be that we have to reduce our prices further and maybe we won't be able to recover the economic value of the pipeline.

MS BATES: You'll be competitive with them won't you?

MR WILSON: It may be competition, yes. There are a few factors that might influence producers as to whether they want to use the Maui pipeline or the NGC pipeline. For example --

MS BATES: Contractual arrangements would be one of the things.

MR WILSON: Contractual arrangements are certainly one. If we look at the Morrinsville system for example, the Morrinsville system is only supplied from the NGC pipeline at the moment, so if a shipper wanted to transport gas to Morrinsville, at the moment they would actually have no option but to use our pipeline. Similarly if a customer wants to transport gas to Huntly Power Station, they have no option but to transport the gas on the Maui pipeline because that station isn't connected on to our pipeline.

MS BATES: Thank you.

MR WILSON: I'd like to tell you the story about some of our pipelines. I thought the Waitoa pipeline was a good example of the kind of issues that I'm trying to describe to you. The Waitoa pipeline, it's a 4 inch yellow jacket pipeline that winds through the Waikato and it was built in 1985 to supply the JD Wallace rendering plant. The pipeline did seem to have bright prospects at first. As you can see from the graph here until 1990 we did do rather well, not as well as we'd hoped because we'd hoped to also capture the Waitoa dairy factory which was at that time on coal and in fact the Waitoa dairy factory is still on coal. But we did develop a network which supplied the township of Waitoa.

You'll see, though, that in 1990 JD Wallace converted their operation to coal, so suddenly the fortunes of the pipeline were reversed. The pipeline was capable of delivering about 200,000 gigajoules a month and we dropped down to supplying just the township demand which was, you'll see from the chart here, less than 10,000 gigajoules a month, so less than 5 percent of the capacity of that pipeline.

About a decade later in 1998 we did manage to win JD Wallace back from coal and the plant is still currently supplied on gas at a much reduced price I might add, but that has resulted in a substantial increase in demand so that now we're achieving about 25,000 gigajoules a month, about 12 and a half percent of the capacity of that pipeline.

If we look at the Gisborne pipeline we can see that something similar has happened in -- the Gisborne pipeline

was actually built on the back of prospects of converting four major customers to gas from coal. Gisborne Refrigerating Company, Advance Meats, Watties and the Gisborne Hospital. In fact all those companies did convert to gas. Shortly after in fact we got some new processing plant on gas, Tomato Developments Limited and after that Jukken Nishu.

Things did go very well for a while, in fact you'll see there for one very brief period in 1995 we actually got quite close to the capacity of the pipeline which is 100,000 gigajoules a month. Since then the two meat works have closed down, Gisborne Refrigerating closed, Advance Meats have closed, Watties have moved most of their processing from Gisborne to Hastings, the Gisborne Hospital is still taking gas. Tomato Developments which changed to Sedenko moved across to Australia in 1996 and as I mentioned earlier Jukken Nishu is now substantially fuelled on waste wood.

So the prospects of the pipeline have changed quite dramatically in that time and you'll see now that for a pipeline with a capacity of 100,000 gigajoules a month we're operating at substantially below that. What happens in these kind of situations? Well as I said before, it can be that we optimise the pipeline down. In the case of the Gisborne pipeline most of it is 4 inch pipeline so it's not realistic to optimise it down. We would need that 4 inch pipeline even to supply that reduced load. So in that case we're looking at the situation where there's not enough revenue being generated off that pipeline to justify its economic cost and we have an economic value write-down and that's the case in the Gisborne situation.

CHAIR: On the previous example, the one before that, you still pass an economic value test do you?

MR WILSON: On the Waitoa pipeline I believe we still pass the economic value test with JD Wallace. Whether we manage to hang on to JD Wallace is --

CHAIR: So despite your substantial reduction in price, you were still able to meet your required revenue threshold?

MR WILSON: That's right. I should mention here that we conduct an ODV valuation in accordance with a draft handbook that was issued by the Ministry for Economic Development and that handbook has never been finalised, so in the gas industry the rules around ODV are not as certain as they ought to be. We have a particular view about what kind of time horizon we ought to be able to take when considering optimisation and economic value issues. I just raise that because it might be, depending on what the final form of that handbook is, that we would have to reconsider some of our assessments on these pipelines.

CHAIR: They took a shorter --

MR WILSON: Exactly, yes.

CHAIR: So you're not using the timeframe in the handbook in that case or are you saying if it were to change from what the handbook currently is?

MR WILSON: If it were to change from what the handbook currently is. We argued strongly that it should be at least 10 years, which is what it is in the handbook at the moment. I think there's a very good case for these pipelines to argue that it should be longer, because as you can see the prospects of a pipeline can change quite dramatically over time.

CHAIR: So when you price, which of the valuation methodologies do you price to? Do you use ODV, do you use ODRC, ORC?

MR WILSON: In the case of the Waitoa situation when we're pricing to JD Wallace it's an alternative fuel price so it's really governed by the economics of that alternative fuel. But if you look at our system overall, obviously you judge our overall return against the overall value of our asset and I think if we move to the transmission ODV here you can see that we would be earning a return on our ODV and no doubt that's how the Commission has judged the profitability of NGC.

But you must remember that from the replacement cost we've optimised out about 17 percent of the value of those assets and then we've had a 6 percent economic value write-down of other assets. So we're getting a return on an asset base that is an optimal asset base, it doesn't represent all the assets owned by NGC.

CHAIR: Sure, I understand that. Can I just ask you, in terms of the overall value of the company, how often -- what percent of your asset base would you be pricing based purely on the ODV value as opposed to the alternative fuel costs; do you have any sense of that?

MR WILSON: Maybe just to give you a feel for it, we have a posted price which has a capacity reservation fee and a throughput fee. The amount of gas moved under those posted prices is about 38 petajoules a year and I think I mentioned earlier that in aggregate we move about 100 petajoules a year.

CHAIR: So that 38, when you have the posted price, how do you set the posted price?

MR WILSON: The posted price is set according to a methodology in our Information Memorandum. Basically it's a cost allocation. It's a bit hard to explain it without a whiteboard, but basically the concept was that customers should only pay for the portions of the pipeline that they used, so a customer in Gisborne, for example, would pick up a cost of the pipeline passing through the Bay of Plenty on its way to Gisborne, but a customer in Tauranga would not pick up any of the cost of the pipeline going to Gisborne. That's broadly the concept that's behind the cost allocation.

CHAIR: And you determine the cost how, that's going to apply to the posted price?

MR WILSON: There are two major elements of the price, one is the capacity reservation fee and we will cover the asset cost through the capacity reservation fee. So in aggregate across our system we would expect to cover the depreciation and a return on those assets. The other element is the throughput fee and we recover all our other costs through the throughput fee.

CHAIR: Do we have that Information Memorandum?

MR MELVILLE: [**Nods**]

CHAIR: We do, okay. That memorandum gives all the information about what return you're seeking overall?

MR WILSON: No, it doesn't do that. In fact I should mention that that pricing methodology actually hasn't been applied since 1999. Effectively NGC's capacity reservation fees have been frozen for that period. There are various reasons behind that, but the major one is that the application of the pricing methodology just produced prices that were too volatile in the market, so we had the

situation where the price at a particular delivery point was being affected by certainly all the other demand ahead of it on the pipeline but also by demand changes at that delivery point.

So you could have the situation, for example, where at a delivery point a major customer closed down and because it was just a cost allocation the price of that delivery point shifted up substantially, and retailers found it very very difficult to deal with that volatility. They didn't mind the volatility if there was some economic rationale underlying it, but in this case there wasn't any economic rationale. The volatility was just a product of that cost allocation methodology and as with any cost allocation methodology --

CHAIR: So you didn't think the cost allocation methodology was founded in any rational economic basis?

MR WILSON: That's correct, and I think that's true of any cost allocation methodology. The only way you could get away from that is if you moved to some kind of marginal cost pricing regime. Interestingly enough NGC did start with a pricing structure that did attempt to reflect marginal cost. When we first went open access back in 1997 our tariff at that point in time had a very small variable component. It was only 3 cents a gigajoule and the concept there was that we would attempt to reflect the variable costs in a variable price. But that was really very strongly disliked by the shippers on the system.

CHAIR: So you don't use your cost allocation model any longer?

MR WILSON: No, we haven't used it since 99.

CHAIR: So what do you use?

MR WILSON: What we target is to get a return across our full asset base, across the ODV. So we intend to recover all our operating costs, the depreciation and a return on the assets.

CHAIR: And it doesn't bear any relationship to what the company actually used that's purchasing from you, it's just somehow averaged out?

MR WILSON: No, the prices are as they were back in 1999, so the capacity reservation fees haven't changed since that time, so to the extent that they were right or wrong at that time they're still right or wrong to the same degree now.

CHAIR: In 1999, what percentage of your gas was sold through this mechanism compared with today?

MR WILSON: More. Probably not substantially more, but I would guess probably about 40, 41 petajoules.

CHAIR: So between 99 and now, the amount, subject to that, has changed very modestly, and the price has not changed, the condition hasn't changed, but that's in nominal terms. In real terms has it gone down, do you inflation adjust or --

MR WILSON: There was one year where we made an inflation adjustment, but generally speaking the prices are the same as in 99. We certainly haven't kept pace with inflation, we only moved the prices with inflation one year during that time.

CHAIR: What happens to the other 62 percent?

MR WILSON: The other 62 percent is priced on bypass effectively. Either it's a physical bypass opportunity --

CHAIR: So you price up to bypass?

MR WILSON: No, sorry, there are a few situations here. One

is bypass, so for example, a good example would be the Otahuhu Power Station up in Auckland. At the time that power station was being considered, a consortium of customers, actually the owners of the Southdown Power Station, the owners of the reticulation system in Auckland and the prospective owners of the Otahuhu Power Station proposed building a bypass pipeline from the Huntly off-take from the Maui pipeline, and we negotiated our term price for supply of gas to Otahuhu and Southdown. So those were physical bypass prices.

More often, though, particularly for the smaller customers, physical bypass just isn't an economic option, but they do have alternatives. Customers always have alternatives. Their alternative generally is another fuel, so we're pricing against, for example, commonly waste wood, coal, LPG, fuel oil. I think in fact we might already have given the Commission some examples of this kind of pricing.

Sorry, Paul's just said that there are two components of price and the one I've been talking about, the capacity reservation fees have not changed since 99. The throughput fee has changed in that time.

CHAIR: What happened to it?

MR WILSON: The throughput fee has moved up several times, in fact every year the throughput fee has moved up.

CHAIR: How do you determine what the throughput fee is and how much you change it by?

MR WILSON: The throughput fee has to recover the movement in our costs, put in aggregate we're back to the same situation, that what we're trying to do in aggregate is to recover our costs, including the cost of the capital

invested in pipeline business.

CHAIR: So overall, regardless of what's happened in the market you've been able to maintain, through adjusting your throughput fee, the return you require on your asset base?

MR WILSON: I wouldn't say that we've managed to achieve the return that we believe we require on the asset base. We don't accept the Commission's calculations of course and we don't believe that we are earning a full return on those pipeline assets.

CHAIR: The way you actually determine your variation in the throughput fee is just, your change of cost drives whatever the change in cost you face?

MR WILSON: That's right, we have recently put out a letter to our customers about the adjustment in the price that is likely to happen on 1 October this year and in that letter we list the costs that have changed in our business and talk about those cost movements. We can provide that.

CHAIR: I think it would be useful to have a look at that. Sorry for taking so long on this, we might want to come back to some of this, but I'll let you proceed with the presentation.

MR WILSON: Sure. Summarising the transmission investment risks, we have risks from the supply and the demand side. On the supply side we've talked about the new fields and LNG, so we're at the risk there that the heart of the system, which is currently in Taranaki, might move elsewhere and that would change the whole technical operation of the pipelines and require further investment. We've talked about the Maui pipeline going open access and the fact that that might significantly change the use of

some of our pipelines, reverse the flow in the Frankley Road pipeline for example.

On the demand side we've talked about competing fuels, coal, wood waste and geothermal and the fact that demand is more mobile than the pipelines. Demand can shift around, the pipelines stay where they are.

I should say that in describing this I'm not suggesting at all that NGC is adverse to taking these risks. We understand that this is the business that we're in and these are the risks that we face. We accept the risks and we happy to carry on taking the risks. We're the best party, we understand the business best, we should carry on taking those risks and Phil mentioned earlier, I think, our investment in trying to get a route designation from Huntly through to Auckland. That is an example of where NGC is investing quite a substantial amount of money just in trying to keep a corridor clear through to Auckland so that at some time in the future we might be able to build a pipeline there if demand justifies it.

CHAIR: I kind of wonder a little bit about the picture you've given us here. I mean I accept that pipelines are fixed in the place they are, but it seems to me many of your customers, as you have sunk assets, most of them have built plant and equipment that's equally sunk and once committed very hard to switch from. So I wonder if demand is quite as fluid as what you're suggesting.

MR WILSON: It is true that the customers have made capital investments too and this is why it's very difficult to get estimations of elasticity on the demand side because they probably want to carry on using gas until the end of the economic life of whatever plant they have. But generally

speaking, even if you're looking at a major investment such as a power generation plant, that life might be between 10 and 20 years. Our pipelines have a physical life of 65 years.

While it's true that customers might suffer from the same kind of supply and demand changes that I've been talking about, generally the customers can move to their alternative quite easily, whereas NGC's investment is sunk in more ways than one, it's physically there in the ground, we can't pick it up and move it anywhere, it's got no alternative use. So I think it's wrong to say that NGC's exposed to the same risk as its customers.

CHAIR: I don't think that was the implication of what I was saying.

MR WILSON: Sorry, I maybe misunderstood.

CHAIR: If one of your customers has built a plant, and let's just say it's only going to be there for 20 years, and you've got your sunk assets and a pipeline that's going to be there for 60 years, does the fact that you know that plant's only going to last 20 years change your pricing behaviour with them?

MR WILSON: There is always a pricing constraint in my experience.

CHAIR: Does it matter whether it's 20 years or 60 years?

MR WILSON: It certainly matters, yes. Obviously the risk is much lower if we're contracting for the full life of the pipeline than if we're contracting for five or ten years. I can't recall how long the contract was with JD Wallace, but I'd be very surprised if JD Wallace didn't switch to coal just as soon as that contract came to an end, so probably it extended to 1990, and --

CHAIR: But it didn't stop you from pricing up as far as you could in the first period, did it? That's really the question I'm putting to you.

MR WILSON: There is always some limit to the price. You just can't price at anything you like. Either there's an alternative fuel or we're limited by the investment that we make in the pipeline because the customer could make that investment, that's the situation we were faced with at Otahuhu, it was a bypass opportunity. So we couldn't price any higher than the bypass price and similarly if the bypass opportunity's an alternative fuel we can't price any higher than that.

CHAIR: Okay, I'll let you proceed.

MR WILSON: I feel I maybe haven't satisfied you on those questions, but perhaps we can come back to them.

CHAIR: We'll keep asking questions if not, you can count on that.

MR WILSON: If we move on now and look briefly at the network business, the distribution business, I'll just remind you that NGC has distribution networks primarily in the Waikato and the Bay of Plenty but also in Kapiti and Northland and Gisborne. I have much less to say about the distribution networks, not because there isn't a lot to say about them, but just because I'm aware that Vector and Powerco and Wanganui Gas will also be talking to you about the situation in distribution.

In NGC's distribution network we have been experiencing growth and we continue to experience growth, quite good growth. The graph on the right-hand side of the screen there is rolling 12 month connections to our distribution networks and you'll see that in the past year

we've had about 2,500 new connections.

The interesting part are the other two lines. The other two lines show you how much of those 2,500 sections came from existing network and how many came from new networks. About 500 or so came from existing networks. By far the majority of the new connections on to our networks came from new reticulation. In other words to achieve that growth we're having to reinvest in the networks, we're having to extend those networks, having to build new pipelines.

The table down at the bottom gives you some perspective on the relative size of the gas distribution business compared to electricity. Of course NGC isn't involved in electricity any more but Vector and Powerco certainly are and for Vector, for example, they have 6 to 8,000 gas connections compared to about 612,000 electricity connections. So gas is certainly a marginal competitor in the reticulated residential business.

The issues facing the distribution companies to some extent are similar. Gas is a discretionary fuel. The market is very difficult to grow. Customers always have alternatives. Where we are achieving growth we're achieving it largely by reinvesting. Those investments I should say are very marginal. It's very very difficult to get residential reticulation to pass an NPV test. Typically we have to look at a time horizon of 20 years and use fairly optimistic growth assumptions, and even then it's difficult to get those investments to pass hurdle rates.

Commercial/industrial growth requires innovative gas based solutions. If you have a picture in your mind that

customers approach retailers asking for a gas supply for a new plant they're building, generally that would be the wrong picture to have. That used to be the case when there were some major industrial customers that could afford to keep their own engineering staff; generally that isn't the situation any more. You'll find the big plants either employ a consultant to look at all the fuel alternatives or they go to the individual fuel suppliers and ask them to propose fuel solutions. That's the situation we're faced with and we have utilisation engineers that develop particular fuel solutions for particular situations.

I'll come back briefly to that at the end of the presentation.

MS BATES: Could I just ask for some clarification. This is something we talked about before and I've been thinking over the break, just to make sure I understand. On your graph about how much gas was transmitted was 100 petajoules, right?

MR WILSON: [**Nods**]

MS BATES: And 60 of those you said went to your major users, including the generators?

MR WILSON: Sorry, yes, I think I said 40 went to the reticulated sector and the rest went to major users, yes, that's right.

MS BATES: Yes, so the reticulated sector, that includes your own network as well as other networks?

MR WILSON: Yes, it does, yes.

MS BATES: So would it be fair to say that the amount of residential customers you have yourself is probably pretty negligible or do you have any?

MR WILSON: Yes, yes, we do have residential customers. You'll see on the --

MS BATES: I'm trying to link that up with the map.

MR WILSON: Yes.

MS BATES: I'll let you go on. What percentage do you think of your customers are residential?

MR WILSON: Probably about 80 odd percent of those connections are residential. So if you look back to the table we're saying there are 56,000 connections off our networks, most of those about 80 percent, 80 odd percent would be residential.

MS BATES: So that makes you out of the norm for -- remember those figures I gave you before of the reticulated market, 28 percent's residential, 55's industrial and 17 percent's commercial.

MR WILSON: Right.

MS BATES: Is that figures for the reticulated market but not your network?

MR JAMES: That's volume, that's percentage of volume hauled through the network. Ian is describing the number of connections. So the two are different.

MS BATES: Okay, so the volume of gas going through your network is what?

MR WILSON: About 15 petajoules.

MS BATES: And of your revenue streams, how much does residential account for, I mean directly, your customers?

MR WILSON: Of the network revenue only?

MS BATES: Yes.

MR WILSON: I'd have to check on that, but my feeling off the top of my head that it would be about a third.

MS BATES: Might be helpful if you did come back to us with

some information about that.

MR WILSON: We can provide you with all these numbers.

MS BATES: That is from your own network.

MR WILSON: That's right.

MR JAMES: Perhaps to help, the make-up of customer mix on our network would not be substantially different from either the Powerco or Vector network. So the rule of thumb is that residential customers outnumber their industrial --

MS BATES: Obviously, so we're looking at --

MR JAMES: But their consumption both at unit level and as a total is the smallest part of network consumption.

MS BATES: Yes, and I'm asking this in relation to inter-fuel competition and where it bites into your business and how affected are you actually by inter-fuel competition at residential level as opposed to say inter-fuel competition at the level of providing gas to generators, to electricity generators.

MR WILSON: Yes, gas is always a marginal fuel of course at the residential level, customers must have electricity, it's their choice whether they want gas.

MS BATES: It's that part of your business that I'm trying to get some feedback from you on the size of that part of your business as opposed to the other business where gas isn't such a discretionary fuel actually.

MR WILSON: I wouldn't accept that, but I do accept that the residential part --

MS BATES: I suppose it's easier for it to be a discretionary fuel at the residential level, but when there's substantial investment in plant, the more substantial it gets the more difficult it is to switch etc.

MR WILSON: Right.

MS BATES: I'm just explaining to you where I'm coming from and asking you to comment.

MR WILSON: I do accept that investment is obviously sticky, once these investments are made in significant plant of course there will be an inclination to carry on using that plant for its economic life, no difficulty about that at all. The issue is at the decision point when a customer is looking at what their choices are, so the decision point is the point where they're looking at a change in their plant or their operation or their location, what is the decision then and --

MS BATES: You've given us an example of where a change was made earlier, right?

MR WILSON: Yes. So I can't think of any situations where there is no choice at those decision points.

MS BATES: No, but let's take the situation for generators and major users, there probably are, well, I think the options are probably more limited and the timeframes are probably greater, would you accept that? The time it would take to make a switch for a generator would be probably quite large, wouldn't it, because of the investment and time taken to get --

MR WILSON: Yes, I accept that.

MS BATES: And major users are probably in a similar category.

MR WILSON: Well --

MS BATES: The ones you supply directly anyway.

MR WILSON: Yes, most pieces of gas equipment are fairly readily converted to alternative fuels, so if you're looking at a boiler, for example, it's very easy to convert a boiler from, say, gas to LPG, that's not a difficulty.

MS BATES: I'm quite interested in this. Are you able to provide any examples. We may have talked about this at the earlier conference of where there has been switching with your major users and generators that you supply.

MR WILSON: I thought we had supplied that information. We can supply more, though, if you want.

MS BATES: I'll come back to that, thanks.

MR JAMES: Perhaps, though, if I just might comment here. I think you were asking questions about the evidence at residential, at household level about the competitiveness of gas vis-a-vis, say, electricity. If you look at the chart that's on the screen now, the lower line, the blue line shows the proportion of existing reticulated households, that is mains runners(?) people for whom gas is available but who are not connected who switch and become gas consumers each year. 500 is significantly less than 1 percent of the households reticulated.

In that respect the gas industry -- and these are typical across other networks as well -- the gas industry is not keeping pace with inflation growth, or with population growth. Most of our new growth comes where we choose to spend capital in your housing estates, for example, so we pretty aggressively compete at the time that an appliance decision has to be made, rather than a switching decision. So there are --

MS BATES: Switching decisions at residential, just going from my own experience, can be quite costly because of the cost of getting up driveways and that sort of thing, whereas if you're putting in a new subdivision you're starting from scratch so the individual costs are less.

MR JAMES: Typically they're taken at times when renovations

are going on or when an appliance has broken down and needs to be replaced, those sorts of things. If we were keeping pace, if we were holding our own and the competitiveness of gas and electricity was maintained, then we'd be keeping up with the rate. So, what this indicates, the corollary of this is that more customers -- the electricity market is growing at a household level faster than the gas market is.

MS BATES: Just before I leave that, one thing that I've been thinking about is that, yes, okay, the electricity might be cheaper but if gas prices go up and gas generates a hell of a lot of the electricity, then that must have an effect on the electricity prices.

MR JAMES: But it doesn't open the gap. The relative price between electricity and gas is narrower today than it was back at the beginning of the Maui period.

MS BATES: So you think it will always be narrower?

MR JAMES: Absolutely, because in context in New Zealand gas is the marginal fuel that sets electricity prices, so that price competitiveness will never open up.

The other issue too is that in household decisions other components of economic decisions like utility, ease of switching, availability of appliances, those sorts of things become pretty significant decisions as well.

MR STEVENS: Has your success rate in signing new customers changed from the past? I'm just trying to understand the trend. You say they're hard won gains at the moment to get new customers and their switching. Is that any different from a few years ago? What's the trend?

MR WILSON: I think the situation is difficult to compare. The reason for that is that there have been really big

structural changes in the gas industry in that time. There was a time, for example, where NGC was vertically integrated, our utility business was based up in Hamilton, it was called Gas Companies and it managed the distribution networks and it also had a retail arm. So that business was a traditional utility style business if you like. But what's happened now, of course, is that the assets tend to be owned by one company and the retailing tends to be done by another company, and in fact the trend we've seen is that most of the retailing is done now by the so-called gentailers.

MR STEVENS: From NGC's perspective are you having to make more investment now than you did previously?

MR WILSON: What we're having to do now is we've found that generally speaking the retailers aren't interested in growing the gas market. They're very interested in trying to improve their cut of the pie, if you like, but they're not interested in growing the pie. The reason for that is it's a very difficult thing to grow that pie. So what we've found is that we've had to make that investment so we have staff that are dedicated to identifying opportunities in the gas market and developing solutions for those.

MR STEVENS: Does that include offering different prices to new customers as opposed to existing customers?

MR WILSON: Yeah, I mean certainly any customer, you know, any large customer anyway is very likely to have an alternative fuel opportunity, so that would be part of the deal in supplying the customer, yes.

MR STEVENS: What I was trying to understand was this new world order that we seem to be moving from, as Mr James

mentioned before, from one period to another period to another period. I was trying to have an understanding on the effect that it had on the distribution side of your business as opposed to the transmission side, and if you saw any marked differences in the way you operated.

MR WILSON: I think, yes, we have seen market differences in the way we operate. As I said before, we were vertically integrated and we did the retailing ourselves. Now we find that the retailers aren't interested in growing the market and we have to make the effort to see that the gas market does continue growing.

MR STEVENS: That's through price and through investment?

MR WILSON: There's only so much influence we can have on price. Generally speaking -- well, the transmission price is a small component of the delivered price, the network price tends to be a larger portion. But obviously we can't dictate the final price that the retailer will offer to the customer, but we can have an input into the price, yeah.

MR STEVENS: Thank you.

MR WILSON: Moving on, on the next slide we have the table of the network asset ODV and you'll see that on the networks there is also optimisation, about 4 percent of the asset is optimised out and there is also some economic value write-down, about 2 percent in this case.

Summarising the distribution investment risks, the demand side risks include the availability and the price of gas, competing fuels, we've talked quite a bit about, electricity, LPG, fuel oil, wood waste, industrial and demographic trends and also the behaviour of the gentailers who are the major retailers in the market now.

Just as in transmission NGC recognises that it does need to continue taking risks in this market if it's to grow. We certainly need to continue investing in new reticulation if we want our residential customer base to grow.

CHAIR: What does your investment profile look like over the last say five years? Has it changed significantly or?

MR WILSON: I think if you looked at the network business you would find that we continue to invest at about the rate of depreciation. So about 4 percent a year. And no, I don't think it's changed substantially, except maybe to say that in the last year there's been perhaps an exceptional amount of new reticulation opportunities just because of the housing market boom. You might find that it's been higher over the past 12 months.

CHAIR: The housing market boom's been going on a long time hasn't it, but you think it's been exceptionally high in the last 12 months?

MR WILSON: Yes, probably not that significant, I would say that the investment in new reticulation if we look back you'd probably find it's about 4 percent a year, but we can supply you with those figures.

CHAIR: I think that would be good. On the transmission side, what does the profile look like?

MR WILSON: It's very very different on transmission because the situation in transmission is that new investment opportunities don't come up that often, it's not that often that we're laying a new pipeline to Gisborne or Northland and in fact it's a long time now since we've made a significant major pipeline investment. The last major pipeline investment I think would have been looping

the pipeline into Auckland and developing our Rotowaro compressor station at the top of the Maui pipeline.

Just summarising the presentation. Gas is not a commodity in New Zealand. The transmission pipelines in New Zealand are risky investments, so are the distribution pipelines.

We talked briefly about innovation. Perhaps I could have talked more, the graphic there is a picture of one of the new greenhouse developments south of Auckland. That's quite a good example of going back to your question about how things have changed. NGC as a distribution operator developed these opportunities, they haven't been developed by a retailer. NGC worked closely with the industry to develop the technological solutions that would allow gas to be supplied into these major greenhouses and we have achieved quite significant growth in our networks, particularly south of Auckland as a result of that. That's an example of how it's increasingly important that we develop innovative solutions to encourage the use of gas. Thank you.

CHAIR: Thank you very much for that. It's always very interesting and I should note that the visit that you hosted for us to the network, it really makes it much easier for us I think when we have presentations such as that, and we do have some lovely photos in yellow jackets and hard hats as well, but that was very useful. For the sake of time now I'd like to turn to our external experts I think and take questions.

MR SELL: Thanks Madam Chair. I have a question, Mr Wilson, on your pricing. Just a question of clarification I think. So there's the capacity reservation fee, the

throughput fee was the other one.

MR WILSON: That's right.

MR SELL: It sounded to me as if that was essentially a balancing item in striking your tariffs. I just wonder if you could explain what's it balancing, is it balancing up to the desired revenue requirement of the business in total, or just for that tariff component of your business?

MR WILSON: The former now. It used to be different prior to 99. When we were recasting the tariff each year, throughput fee was just recovering the non-asset cost.

MR SELL: Okay, so it's recovering essentially everything that's not recovered under the capacity reservation charge for the whole of the NGC, or transmission -- sorry was this a transmission charge or distribution?

MR WILSON: Transmission. Sorry, in distribution the pricing structure is different. Basically in transmission there's a fixed and a variable price, the fixed price being the capacity reservation fee whereas the retailers reserve their space in the pipeline, if you like, and the throughput fee is a variable fee.

On the networks there's also a daily fixed charge but it's a much smaller proportion of the total charge and there's a variable price for each different category of customer, so there's a different price, for example, for residential as from commercial and industrial and I think you'll find that that's generally the situation across all the networks. I mean Vector and Powerco and Wanganui Gas and NGC.

MR SELL: So just following through on that, if we just take the transmission business, I think you said the tariffs of some of your market are being set effectively on the value

basis, based on the net back effectively from the alternatives they have available to them. But overall for your transmission business, and putting aside for a moment the fact that you may have different views from the Commission on WACC or acceptable cost levels and so on, would you say that you're setting your prices on a similar basis to the way they would be set if you were being regulated? Are you attempting to mimic that in any way?

MR WILSON: No, I don't think it would be the same. If we were regulated I think we'd have much less freedom to negotiate prices than we do at the moment.

MR SELL: I guess I'm thinking more about the overall revenue level of the business that you're trying to achieve rather than the specific tariffs, customer by customer tariffs.

MR WILSON: Would the overall revenue requirement of the business be different if we regulated than now?

MR SELL: Mmm.

MR WILSON: I don't believe so, I don't believe it would be significantly different.

MR SELL: So it's that kind of cost build-up model that you're trying to replicate internally at the moment.

MR WILSON: I think we believe that we're endeavouring to target a fair return on our ODV valuation and I think that that would be the same whether we were regulated or not.

MR SELL: Okay, thanks. Just one other issue that you raised. The time period over which you try to, or you aim to recover your investments, I wonder if you could just comment on that aspect of setting your revenue requirement.

MR WILSON: Sure. I tried to make the point a couple of times that these are very long lived assets. We assume a life

of 65 years and we will only achieve a return of our investment and a fair return on the ODV valuation if we get the price throughout the life of the asset and that's the difficulty with having pipelines such as the Waitoa pipeline, say, for a period of 10 years there. Obviously there wasn't enough revenue being generated off that pipeline to justify the capital cost. So if we had been under an ODV valuation during that period we'd have written down the value and we'd only have been recovering on that written down value.

MR SELL: Okay. I understand well the dilemma you have here because if you set your pricing based on 65 years then the risk is only ever downwards isn't it?

MR WILSON: Yes.

MR SELL: I think you also referred to making investment decisions on a 20 year timeframe, in which case potentially your risk is a little bit less, but then you have the other side of the dilemma which is that if the customers carry on for 65 years you potentially over-recover for 45 years.

MR WILSON: Yes, when I was talking about the 20 years I was talking about residential reticulation. So what we're trying to do there is to get a positive NPV over a period of 20 years. Because of the discounting, any revenue beyond that 20 years is fairly well irrelevant, it is just largely discounted away, so I don't think that really is a significant issue in terms of those investments.

MR SELL: So your tariffs, even for them, are still set on a 60 year basis let's say?

MR WILSON: That's right, yes.

MR SELL: Okay, thanks for that.

MR WYDEVELD: I just wanted to ask a question on capital contributions from your customers on the distribution network. In submissions I think you provided a few examples for residential customers and the argument was that maybe you could get 3 or $400 out of them, possibly as a capital contribution. I just wanted to get a feel for maybe the size of that. In terms of maybe a percentage of total connection costs, what does that represent, or, yeah, what proportion does it represent in contributions?

MR WILSON: The average cost of connecting a residential customer is around $1,000.

MR WYDEVELD: Roughly around 30% then. Okay, how do you account for that as well? Do you just roll it into the asset base, the contribution or?

MR WILSON: No, I'm not sure what exactly was said in that submission, but currently the situation is that as long as the customer is installing a certain amount of gas appliances we don't charge any contribution. So generally connections to our networks are free. There are some exceptions. If it's a particularly long driveway, for example over 20 metres, we charge a little extra for that extra distance, but generally speaking connections to our network are free.

MR WYDEVELD: Okay, thank you.

DR HODGSON: Just to add on there, the point about the capital contributions was directed with relation to people preparing subdivisions, developers. As Ian says, usually with the residential customers they have a free connection, so there's no contribution from them.

MR WILSON: If I could pick up on that point, that's a very

good point, Paul, that I'd forgotten to develop earlier, that's another significant difference between our business now than a couple of years ago. A couple of years ago the question of paying a contribution to a developer just never would have arisen. But we find now that first of all developers are very much inclined to, if they are installing gas as well as electricity, to get them both from the same provider, say Vector or Powerco. Where the provider of the gas network is different from the electricity network we find that we're encouraged to pay them a contribution towards getting gas into the subdivision. So that is added to the cost of new reticulation.

CHAIR: I'd like to thank you for that part of the presentation Mr Wilson. I don't know if you're presenting after the lunch break?

MR WILSON: No.

CHAIR: Can I just ask who will be presenting so that I'm aware.

MR BIELBY: We'll move next to Dr Hodgson's presentation and then the CRA presentation.

CHAIR: The CRA presentation is separate from the memo that you've handed out to us, the slide?

MR BIELBY: Yes.

CHAIR: The CRA presentation will probably happen after the afternoon tea break I suspect, okay. All right, unless there are any matters you want to raise with us before lunch.

MR BIELBY: None thank you.

CHAIR: Thank you once again and we'll adjourn now until 2 o'clock, thank you.

Lunch Adjournment from 1.00 pm to 2.05 pm

CHAIR: Okay, I'd like to reconvene this session with NGC and ask you to please introduce the next speaker, thank you.

MR BIELBY: Thank you Chair. We have Dr Hodgson on my right, Andy Nicholls on my left. Dr Hodgson will lead the presentation. We're at section 3, the business concerns with the model which is at page 23 of your materials. Thank you Dr Hodgson.

DR HODGSON: What I'm going to discuss I think is probably fair to say a business perspective on the model the Commission's using. Later you'll hear from CRA who will discuss, if you like, the more fundamental economic arguments. We've also set aside, if you like, the WACC issues we set aside for LECG to discuss and also the issues about how one might do benchmarking or productivity studies have been set aside for PEG to discuss. So rather than delve into the detail of those aspects we'll leave those for those sessions for the experts to address.

What I'm going to talk about is really a perspective on the overall approach and then the actual approach that's been applied in terms of the net acquirers benefits test in the way the Commission has applied it, or presented it.

Mr James hasn't been before the Commission, but myself and Steve have been before and I guess we approach this process with the view the usual process that the Commission uses in its inquiries and that being one of a forward-looking approach as the Commission has presented looking at a factual and a counterfactual and how things pan out going forwards. That was indeed the approach used in the airports inquiry. It was actually a two part

assessment in that inquiry where you look backwards and then you look forwards to see if there would be benefits from control.

We therefore, having read the Draft Report, end up at the position of this first question, it's a bullet point here and I will address it here. Looking at the model it's not clear whether the approach to analysis is trying to generate an average year of benefits to inquirers or in fact to provide some form of forecast. Just as with the airports inquiry the recommendation was made on the basis of looking forward. It's not clear to us. Why I'd say it's not clear, the point we wish to make apply in both circumstances. It's a question of how you present or communicate the issue that we're trying to make.

Just to expand on this, if the model is trying to generate an average year, which would be subject to the benefits of control, or would represent the benefits of control, then it would appear to us that the point of taking a longer time period is to generate a more robust average. If that's the case then, if indeed it is to represent an average, you would need to correct for one-off events or what you consider to be non-repeatable events so that a mathematical bias is not introduced into the analysis.

It would also need, therefore, to take some consideration of the fact that fundamentally the market has changed and therefore the situation will not be the same. Phil showed the chart of transmission volumes increasing significantly in the early period, and then going forward we have quite a different profile. So there is another mathematical issue in terms of how you might

prepare an average, if that indeed is the case. If on the other hand it's a forecast, that presents another set of challenges.

We would submit that if we were to take a forward-looking approach, then the benefits of control, if you like, or the assessment of whether control should be introduced should actually use only a forecast data rather than the whole period. By using a whole period, if that is the interpretation that you're trying to smooth out volatility or anything else such as that, you might get in the -- by having a shorter time period, then in fact it appears that you are projecting a 12 year period forward from today. In other words, you're saying I'm standing in 1997 looking forward to see if there are benefits to controlling the gas industry.

Now again if that is the interpretation, you would need to correct for behaviours which have occurred which would be different had we been under price control. I will address some of those as we go through my points below.

What I would say before I go into the list of issues, is that we do believe that the forecasts we provided to you are the best estimate of the future in terms of -- the papers we provided the Commission represented what went to the board. They included a reference case which is the situation which we use to fill in the 70E returns. They also showed a growth case and they showed a low growth case or a worst-case, if you like.

Clearly as a business we don't know how the future's going to unfold and it's certainly a theme of what we've heard so far and we'll hear from me and we will hear from

CRA that the future is uncertain and we quite willingly say we can't predict the future. But taking that into account in terms of doing a model, one has to be sure that what one is firstly looking at is robust evidence that control is necessary, but also a certainty that benefits can be achieved by imposing control and in particular the CRA discussion later on will address squarely the point about volatility looking forward and actually offer an alternative model which allows assessment of how volatility may be represented in a model. But I'll leave that to CRA to talk to.

What I'm going to talk to is simply a list of points which we believe need to be either modified, improved upon or corrected within the Commission's framework which is the net acquirers test and using the Commission's parameters.

CHAIR: Can I just interrupt you for a minute and I want to pursue this question about whether it's appropriate to use past data as well as forecast data and I want to be clear what your submission is. Is it your submission that under no circumstances is past data relevant to an inquiry such as this? Or is it your submission that because market circumstances have changed so significantly that it's not relevant?

DR HODGSON: No, I think it's fair to say that most people would think that there is useful information in past data, we're not saying that's not appropriate. And one of the key pieces in there is that there has been a lot of volatility in the information. What I'm saying in terms of assessing benefits on a forward-looking basis, in our view the best interpretation of the past data is what has

been encapsulated and what we put to the board and what we have put to the market in terms of our forecast looking forward.

If you recall in the Airport Inquiry the Commission looked backwards to get an understanding of what was going on in the market but the recommendations on control were based on the forward-looking years within the analysis.

CHAIR: So in principle you don't have a problem with the fact that past years might have some information value, you yourself think some of it is embedded in your forward forecast?

DR HODGSON: Yes, that's why I guess I'm raising the issue, that if indeed the Commission was attempting to create an average representative year, then that's a certain approach, but it would require correction so there's not a mathematical bias introduced by one-off events, as opposed to simply generating an average.

CHAIR: Okay, we might want to come back to this issue, but I just wanted to be clear what the submission was at this stage, thank you.

DR HODGSON: The list of issues here I won't read out the chart, people can read that. What I will say is that when I get to the last slide I will actually demonstrate the impact of these key concerns on the Commission's model and we believe on what the Commission's recommendation should be.

The Commission obviously, and we accept the point that it has to have some form of model for making its analysis, that's not in dispute, and we recognise that it is a difficult task, there's limitations on the estimates that are available, the data that's available, and we would

note the quote here that the Commission has in its Draft Report about what exactly constitutes normal returns, and I won't read that out. It represents what I was trying to express on the previous slide, that where there are significant singular events, if you are indeed preparing an average they can bias the result substantially, and there's one or two of these which we believe would fundamentally change the Commission's recommendation in respect to NGC.

Dr Lally also warns in his work for the Commission that the asymmetric risks and in particular in our case stranding risks present particular difficulties and he suggests a particular approach for dealing with these biases if they are considered to be slight. In our view it's not reasonable to consider an impact of an issue slight if it indeed makes a difference between a price control recommendation or a no control recommendation.

So I put those up simply to identify that we have got common ground, we do accept that it's a difficult situation to assess returns on, there is limited information for all parties, but we would urge that we need to move forward on a robust basis.

Asset stranding, this is an issue you heard from Ian about this morning. In our view, and it is a significant issue, the threats to us of inter-fuel competition are very real. We do table an example in our confidential version of our submission which is imminent on our pipeline, a whole section of a line that will be stranded. It's not something that happens occasionally to gas networks, it's a very real risk.

In some ways the best place for that risk is to be

borne on the company. The company has the best knowledge and best skill of anyone in the market, I believe, to actually try and manage those risks. In a regulatory sense it places the incentive on the asset owner to avoid stranding risks, firstly to avoid stranding risks. Obviously if we price too high and gas use goes somewhere else or demand goes elsewhere, we're the ones that are left with the pipelines in the ground.

Alternatively where there have been stranded assets the incentive is on the asset owner to actually find alternative economic uses for those assets. If the incentive wasn't on the asset owner, then consumers would be exposed to the volatility in costs of stranding. I don't think that's, you know, largely speaking I don't believe the consumers would have the resources to manage those risks and neither necessarily should they.

The ODV process as a basis of the regulatory regime reflects this stranding. Ian outlined the stranding, the approach to how you represent stranding. First the system is optimised, so that's a technical decision, if you like, if we need to supply a certain area do we need a 4 inch pipe, a 2 inch pipe or do in fact we need to change the size of the piece of pipe and introduce a compressor into the ideal system and that gets around to the, you know, the question of consumers not having to bear the costs of imprudent investments or the changes in demand by other consumers. Where that doesn't fully capture the stranding then there's an economic value adjustment which is also applied to the system valuation. That leads us to, as we know, to the ODV numbers and that's the valuation on which we seek to get our return.

I'll turn to the first of the significant issues, which I believe would change the Commission's results singularly. The Kapuni North line was built around 1969. The Maui field was subsequently developed and that pipeline was stranded when the Maui pipeline was put in place. Just to give you an idea of the sizes, the Kapuni North line is an 8 inch pipeline, the Maui pipeline for much of its length is a 30 inch pipeline, in parts of Taranaki it's larger than that.

So as you would expect our pipeline was stranded, with the ODV process it was written out of the asset base, so NGC was not recovering any of the costs of that pipeline. In 2001, though, people started coming to us and saying we want to get some gas for the -- it's not Maui gas so it can't go through the Maui pipeline, can you help us out? Two or three other parties, which I'm not sure if I have the permission to use their names, have spoken to Swift and the Swift gas from the Rimu field was sold to Genesis for use at Huntly Power Station and the only way that could actually get to market, in other words be sold to Genesis, was if the Kapuni North line was used.

So by 2003 NGC had fully sold the capacity, as Ian described, it's probably the most heavily utilised part of the system. So it was deoptimised when we did a valuation in 2003 and the Commission has seen that and in the work Mr Sell has done. So there was a $50 million increase in our valuation that was due to that pipeline being deoptimised, so, if you like, unstranded.

CHAIR: When you optimised it out, how much went off your asset base?

DR HODGSON: In the 1994 ODV I think it was $40 million.

CHAIR: Thank you.

DR HODGSON: The Commission has the 1994 valuation, it's in there. The model treats this the same as the revaluation. I believe this is an inappropriate treatment and this assumption alone leads to a recommendation for control in NGC.

If we go back to my earlier proposition, if indeed the model is supposed to be an average, then clearly, and recognising the quote from the Commission on the previous slide, this singular event introduces a mathematical bias to the analysis. It's a $50 million one-off event that is -- you know, if you test the sensitivity for it is what I'm saying, the numbers drop out so that you would recommend no control on a net acquirers basis.

CHAIR: Does it matter whether it's a one-off event? Isn't it just whether it represents value -- an asset with value to the company?

DR HODGSON: I guess if I can go -- in terms of assessing normal returns, and this is a quote from the Draft Report, I believe that that one-off event does unduly influence the Commission's recommendations.

CHAIR: We could make that argument about every investment you've ever made. When you invest in a particular pipeline and be doing the same pipeline over and over again. I must not understand the way you're interpreting "singular event" here.

DR HODGSON: Well shall I say, if I take the other interpretation and I guess this is part of the process that we were in, if indeed the 12 year period that's being assessed is a forecast of a control situation, so you're trying to generate an average looking forward, then there

are two behaviours that NGC would have demonstrated in this regard. Firstly it would have sought from the Regulator, whoever the Regulator was, an ex-ante dispensation for that pipeline coming back into use, we would have said basically we intend to start using this pipeline again, is this going to be treated against us in a regulatory sense? If the answer --

CHAIR: What do you mean by "treated against us"?

DR HODGSON: If the understanding is going to be taken as economic income, and that obviously, you know, to put it in very blunt terms, the $50 million, if we're expected to reduce our revenue by $50 million for a one-off event then that's not sustainable from a business cashflow perspective. We can't turn around to customers and say, you know, we couldn't wear that from a business sense, so we would turn around to them and say if we are not going to get dispensation from the Regulator we will not bring that asset back into use.

CHAIR: Why would you not if you earn WACC on it in the future, why would you not bring it back in? If it's economic to bring it back in why would you not?

DR HODGSON: If it's economic to bring it back in, the interpretation of your model is that we need to reduce our revenues by $50 million to bring it back in.

MR STEVENS: Are you suggesting that we haven't symmetrically dealt with it because the write-down was outside the review period of the model and the write-up is in the review period, is that what you're suggesting? That's the point you're making?

DR HODGSON: Yes, it's a singular event within the model which is unduly influencing the result.

CHAIR: Surely the write-down -- you wrote it down when you took it out, right, you wrote down the asset when you took it down and you counted it as a revaluation loss.

DR HODGSON: No.

CHAIR: It didn't appear in your books in any way when you optimised it out. You've showed us cases where you optimise out assets and it clearly showed up in your asset base, did you optimise it out?

DR HODGSON: The optimisation, the stranding event occurred a long time ago.

CHAIR: Yes, but when it was stranded I asked you what loss was it and you told me, I believe you told me it was $40 million.

DR HODGSON: It was $40 million in 1994.

CHAIR: So that would have gone through your asset base at that point.

DR HODGSON: The valuation, yes.

CHAIR: And we accepted whatever gains and losses there had been from that earlier period for the purposes of our analysis.

DR HODGSON: But that loss is not recovered ex-post, this is the point I'm saying, that we can't go around to our customers and say that asset has got stranded. A good example is the one that we have in there that's about to happen on that particular line, that when that asset is stranded and it's written out of the asset base we cannot go around to the customer and say sorry, we've just lost $X million on that asset, we're going to put up your price to recover that, because that amount of money will show up as excess returns, because it's written out of the ODV. When we're assessed on the ODV basis we will be getting,

you know, X plus 1 percent rather than getting X percent return, which will be judged to be an excess rate of return.

CHAIR: It strikes me, and I'll give careful thought to your submission, but it strikes me that the Commission has approached this in a symmetrical way. To do anything other than what we've done would have opened up a discrepancy in terms of treatment. I'll give careful thought to it, but I have to say I am having some difficulty understanding the submission. I make that point not because I've formed a final view on it, but I just want to be clear with you so that if there are any further submissions you want to make to us on this point to help us understand your point you can do so.

DR HODGSON: CRA will be addressing this as well. The assumption ex-post recovery we think just doesn't hold for stranding events.

I've provided the example and it sounds as though the members are familiar with it, to try and illustrate the impact of a shortened assessment period on the Commission's model, but I've provided a simple model here, and we won't go through that in detail, it's described in our written submission. But I would draw people's attention to the question, and this reflects again the question of mathematical bias, that table D and table B are identical except for the fact that the sample period differs.

By the sample period being different, so within that model the treatment of revaluations and devaluations is pushed through as income, it's taken to be completely in the way that it's presented in the Commission's model, but

by having a different sample period we see an excess profits finding between those two tables. Even when we go into subsequent tables in that model and it does take some time to sit down and look through it, with reduced revenues in the shortened assessment period, you can still end up with deoptimisation leading to an NPV greater than zero when again you are looking over the shorter period.

Will there be future changes in stranding? Well, implicitly, and I think this is implicitly reflected in the model, the terminal value at the end of the study period is the estimate of future earnings, that is the interpretation people put on it. But that number incorporates significant uncertainty and CRA will address this on a more economic basis later in our presentation, or in their presentation.

So what are the implementations? We've already addressed a couple of these points. In our view stranding issues should not be treated the same as revaluations. We understand the basis of why revaluations are treated as income, however we believe that optimisation and economic value adjustments require a different approach so that the model better approximates reality. We would say that, and we acknowledge fully, that it's a difficult issue of how to deal with asymmetric risks and stranding risks and accept that. We are simply putting forward the view that ex-post recovery is impractical in reality as any increase to cover stranding costs shows up as a margin over the acceptable return on your ODV assets.

So in my view the Commission's model as it puts forward represents two mutually exclusive options. If you're going to make an assumption of ex-post recovery

then the excess profit calculation should use a depreciated replacement cost, because you are saying that the company is allowed to recover cashflows that cover its optimisation and economic value write-downs, therefore rather than having ODV in the equation it should have depreciated replacement cost. If indeed you're going to use an ODV asset base then stranding should not be included as income.

On a wider front, this issue raises dynamic efficiency issues. As I said earlier the incentive --

CHAIR: Can I just clarify one thing. When you wrote out the assets did you treat it as a loss?

DR HODGSON: No, it doesn't go through the P & L, the revaluations do not go through the P & L, they are a balance sheet item.

CHAIR: You didn't do it at all, you don't do it ever with revaluation, gains and losses?

DR HODGSON: They don't go through the profit and loss account in the statutory accounts. So they show up in the regulatory accounts, but they don't --

CHAIR: So the loss showed up in the regulatory accounts?

DR HODGSON: We were actually under price control at that time.

CHAIR: What do you mean by "regulatory accounts"?

DR HODGSON: Since 1997 we've had the information disclosure accounts, so those include revaluations as income.

MS BATES: That's from historic costs for ODV, is that what you're talking about?

DR HODGSON: Sorry, no, just ongoing revaluations appear as income through the ARP or RRO formulas, whichever ones they're using.

CHAIR: Since the disclosure regulations, or they're not even regulations are they in your case?

DR HODGSON: They are regulations.

CHAIR: They came about in 97.

DR HODGSON: Yes, that's correct.

CHAIR: Since then you've treated these as gains and losses, but the period at which this was optimised out, Kapuni, going back to it, I think at that time that was disclosure regs.

DR HODGSON: The first major ODV assessment we did was in 94, but the asset was stranded much earlier than that.

CHAIR: When you did the opening value there was no account taken of the original stranding?

DR HODGSON: No.

CHAIR: I see what you're saying.

DR HODGSON: It's I guess a question of analytical treatment is the discussion. In a wider sense there is a dynamic efficiency issue here which we believe needs to be maintained. It's necessary to keep the incentive, we believe, on the asset owner to use its assets and to avoid stranding.

I'll give you a couple of examples here. The Frankley Road pipeline which Ian referred to which runs between Kapuni and the Maui pipeline, and that's where the Darby Road compressor station is which you visited, those assets are optimised out at the moment, roughly $20 million. There is the potential, and we've raised this as a potential, that somewhere down the line someone will want to develop storage in the New Zealand gas system.

The best way to actually present that is for Frankley Road to become what's known as a hub or the central

trading point in the system. Logically as the system is configured now that would be the place that you would want to do it. That would then allow the implementation of storage and a wholesale market, if one is indeed needed.

Clearly should that eventuate, I'm not saying it will, I'm just saying that these are things people have flagged we need storage in New Zealand to address the question of flexibility, we need a wholesale market, the jury's probably out on that, but certainly if NGC was in a position where it was going to be negatively impacted there wouldn't be much incentive on us to actually want to deoptimise those assets.

CHAIR: Can I just ask you a question. It's my understanding that in 1997 which is when the disclosure regs come in and it's the cut-off date that the Commission uses in terms of past revaluation gains and losses, 1997 NGCT had a revaluation reserve of $110 million positive, is that your understanding?

DR HODGSON: I don't have the figures to hand, but if you've picked them up from somewhere I'll take that as read.

CHAIR: I'm trying to understand if that is the case, and that but for the decision to treat past revaluation gains has decided to overlook them, they would have been treated as income and that significantly advantaged the analysis of NGCT in terms of your perspective. What I'm not sure of is whether that positive $110 million is a net number that's taken account of this $30 million odd that you say was a loss from the earlier period. I may be misunderstanding the two, but I would ask if you could, please, to come back to us on that point. Because I think I'm beginning to understand that point and I'm trying hard

to understand the point that you were making.

It still troubles me then to say -- I can see the point you're making, but then when I turn myself to what I know we did in the analysis, which is that we took 97 as the cut-off date for past analysis of revaluation gains and losses, and I know, or I believe at that time you had a revaluation reserve of $110 million that was not taken into account. It suggests to me that you've come out well ahead on this front. So I'd just like your assistance if you could in clarifying that for me. If you can't do it today, in your cross-submission please.

DR HODGSON: My understanding, though, is that it's a balance sheet item that's not been through the profit and loss statement or indeed the cashflows of the business. You know, there is a question of --

CHAIR: But the gain wouldn't have either, right?

DR HODGSON: No, I guess this is what we're getting to with this question of the treatment of stranding is exactly what the impact is on people who, if you like, pay the bills that we send out. I mean, I guess that's what we're trying to get to.

CHAIR: I may be confusing two different issues, but if you can help me with that I'd be grateful.

DR HODGSON: I guess just to wind up on the question of preserving the incentive, the Gisborne line has a significant write-down. The electricity system in that part of the country, particularly the networks and transmission system there, is in need of support. There's opportunity for people to look at potentially gas co-generation in that area. In general terms there is a significant amount of optimisation and economic value

write-downs that potentially could be addressed through new options if we want to bring assets back into use.

To wrap this point up, the stranding on NGCT has been volatile in the past. As percentages, you can see it's down at 29 percent in 97, up to 36 percent, down to 23 percent in 2003. Not volatile on distribution, but increasing. The fundamental point is around stranding the future's not certain. And this ties in again with the issues that CRA will make that looking forward and thinking about the benefits of control one has to take into consideration uncertainty.

CHAIR: I probably should be able to figure this out on my own but I haven't been able to so I'll ask you, and I have a feeling it's one of these obvious things that I should know, but why has the optimisation been so much greater for the transmission business than the distribution?

DR HODGSON: Partly I would suggest, and unfortunately Ian's not here, he would be better placed, but typically your transmission system going to particular points, if you like, such as a dairy factory or a, one of those other examples or, say, right across the country to Gisborne, you're spanning much longer distances with much bigger pipes.

So when you have events like a major customer drops off, the impact tends to be bigger, whereas the distribution network you have, you know, a lot of small consumers. So I mean we've got 56,000 connections on our networks against 12 major connections off the transmission system. But also our transmission system connects to everybody else's networks so we get the cumulative impact of the network business.

Also typically networks aren't looped, so where we've got two pipelines into Auckland now, in the optimisation process that's treated as one pipeline of a different size and similarly on the pipelines coming south where they've been looped, where you've had that sort of double up that was built to supply the load growth through the 80s then you're stuck with just having it optimised down to one pipeline.

In terms of the Commission's analysis, our views are that taking a forward-looking approach is appropriate. The usual approach of specifying a factual and a counterfactual and looking at the difference between them, and again if we are going to judge that by using past information we have to consider that behaviours would have been different in the past than if we'd been under control.

So it's not fair to say that the -- for instance the growth in the market would have been the same if we'd been under price control from 1997. If we'd have been price controlled then and restricted to a certain revenue, then there may have been some growth, but there certainly wouldn't have been the same incentive to grow the market, it would have been a question of, if you like, regulated growth rather than this is fairly explosive growth. Therefore, in terms of this process we believe that the --

CHAIR: Why would the incentive had been any different if you'd never earned excess returns and the Regulator would allow you to earn a return arguably consistent with what you say you have earned?

DR HODGSON: I'm saying the growth in the market. I mean we wouldn't have the same shape of gas industry now as we had

in the past. Just to take an example, previously when we were under price control we were requested to have special tariffs for co-generation; for instance they weren't allowed by the Commission at the time. Since the period actually that we're looking at here, there has been a growth in special tariffs for co-generation plants which have increased the ODV all volume and, if you like, have benefited everyone because, as you say, we haven't got over the return cap, but we've been able to hold prices. Ian mentioned that in 1999 was the last time we cranked the handle on the allocation model. After that we actually had three years where prices completely were rolled over. If you actually plot transmission prices, in real terms they've significantly reduced since 1997.

CHAIR: Is that taking account of both components? I thought we heard some heavy qualification of that point eventually. Did I misunderstand?

DR HODGSON: What happened, since 1999 the reservation fee, the fixed component hasn't changed to this day. Neither component changed for three years, then there was a PPI adjust, then there was a larger adjustment last year. So there has been -- if you like there was a price freeze in toto for three years, well, not the freeze, it was a roll over, because volume growth etc had allowed us to offset increased costs, but now we're getting to the situation where that growth's no longer there in the profile as we saw and so costs have had to move. So, yeah, it's largely how the prices have gone.

CHAIR: I must have misunderstood the evidence, because I thought he had indicated that the one component had changed in each of the years, but --

DR HODGSON: Not in each year, in the last two years.

CHAIR: You say there was three years where there was no change in either component of the pricing?

DR HODGSON: Yeah. In terms of the long-term fixed contracts, rather than the posted prices, there may have been PPI, you know, inflaters built into the contract, but...

CHAIR: I'm kind of puzzled by the comment about incentives for growth because I know from our experience in electricity that the companies that are experiencing growth find it quite easy to live within thresholds, the ones that aren't find it a little more difficult; so the incentives to find growth are very strong for them. I'm trying to understand why this might be different, I'm just simply trying to understand the point. I wonder if you can help me out with that a bit more about why there is this issue about incentive for growth under regulation.

DR HODGSON: Well, not wanting to hark back to the same example but I will, the Kapuni North line, if we had been subject to regulation, price control of some form, and we got to the year 2000 and people started talking to us about whether or not you want to bring that asset back into life, and we're saying well no, we don't believe that we can because the income will be treated against our cashflows and we will breach a cashflow assessment of what we're allowed under regulations, there wouldn't be the incentive for us to bring that asset into use.

CHAIR: I won't belabour this debate, maybe staff will want to come back to it, but I remain slightly unsure about that part of the submission, but we'll certainly look at it very carefully.

DR HODGSON: In terms of productive efficiency, as we

mentioned on Wednesday, PEG will be discussing, if you like, the details or the mechanics of this. What we would like to talk about is the implications of the approach to productive efficiency, and it's our view, and it was expressed by Phil James in terms of his experience of benchmarking studies. But in terms of robust evidence for assessing the gains under price control, we don't believe that any additional gains can be ascribed to a control factual against a counterfactual of no control.

NGC's an investor owned company, listed on the New Zealand Stock Exchange, it has every incentive to be efficient. If it is not efficient it stands in the market as a potential take-over target in terms of commercial reality, if it's not efficient, it faces bypass, it faces inter-fuel substitution, and for the people responsible they face the incentive within a listed company such as ours of actually management change. So at every level there are strong incentives for people to encourage productive efficiency.

We understand and fully recognise that there is only, if you like, limited data available to Meyrick & Associates, so it's in no way a reflection on their work. I would say, however, that there are, as PEG will outline, there were some significant factors that weren't corrected for, but again that's an issue for experts to discuss rather than me.

The work that we had done by PEG show that NGC distribution is a superior cost performer. 30% lower than US firms. Statistically significant. We're not claiming that your model should say that the counterfactual has a productive efficiency gain over it, but we are saying that

it's not sound to say there are additional gains from price control.

In the case of NGC transmission, it's simply not comparable to transmission pipelines such as the Moomba to Sydney pipeline. To give a couple of examples of why that's the case, we haven't conducted a study but we believe it is something that can be addressed in a quite straight forward manner.

The members, when they visited Taranaki, would have seen a number of large pipelines at the four road(?) mixing station. The Moomba to Sydney pipeline is one of those much larger pipelines. In fact if I sort of illustrate with my body, the diameter of it is basically from the middle of my body to about the end of my hand, that's the sort of diameter the Moomba to Sydney pipeline is.

What I've got here is a bit of the pipeline that was cut-off the Pohangina bridge. It's an 8 inch pipeline. Doesn't even get across my body here. The cost of actually supplying gas down a pipeline that big compared to one that big are much greater. On top of that, the Moomba to Sydney pipeline largely runs through the dessert so, there is not the land owner issues that we have to face, we have to control our pipeline regularly. In the case of cross-country pipelines that's aerial patrol till we get down to the point of within Auckland itself, particularly on Hillsborough Road it's patrolled on a daily basis. We have three and a half thousand landowners that we have to deal with in terms of our pipeline.

On the commercial side the Moomba to Sydney pipeline deals with one or two large companies that have contracts.

On our pipeline we're trying to deal with the allocations and reconciliations of a whole raft of shippers. It's a much more complicated situation. So again, we recognise that there is a limitation to the data and that the Commission is trying to find a way forward but we don't accept that the study can be relied on to assume additional gains, and would submit that productive efficiency should be taken to be the same between the factual and the counterfactual.

In fact under control, and this is what we've put forward in our written submission, and it was actually recognised the other day in the discussions here at the conference, that the incentive, as has become apparent in overseas jurisdictions, is for the regulated firm to actually save up its productive efficiency gains in years 4 and 5 so that they can use them in the next regulatory period. That's reflected in the CRA model which we say they're much better placed to discuss.

Information estimates. These are some of the estimates that we've provided and some which the Commission have worked on. In our view, as we say and have said, is that our forecasts provide the best estimate for the future. We're not saying they're perfect, we fully acknowledge that through the scenarios that we presented to the board that the future's uncertain. It is, however, the information that we've provided to investors and to the market, and it incorporates as far as possible, as we see it, any information that's in the past that can be usefully used looking forward. By not taking a forward-looking approach in the analysis the Commission's model leads to a control recommendation.

That will be one of the impacts that I show at the end.

Common costs, the Commission has indicated that it intends to adjust the common costs provided by the different companies. We've previously provided an economic report by CRA around the application of ACAM, I don't intend to go over the economic discussion again here. However, I would say that if we had, and we have said this in our written submission, if we had applied a strict ACAM top-down strip off the contestable business approach, then we would have included 100 percent of our actual common costs in our 70E returns. In fact if we'd allocated the common costs on the basis of funds employed we would have ended up with around 62 percent of actual NGC common costs allocated.

What we did, however, is actually endeavour to provide a robust and good faith estimate to the Commission in response to the 70E notice. The common costs we've allocated only 54 percent of NGC's total common costs. We believe that's a fair representation.

In terms of tax, specifically forecast tax expense, I don't endeavour to debate the issue of the tax shield, we weren't impacted by that, we didn't include interest. However in the process of addressing the Commission's subsequent requests for information it's come to light that the price increases that we notified the Commission of earlier in the year we didn't include the impact of those on the tax expense we forecast going forward. So, if you like, there's 33 percent of each of those which need to be taken as additional forecast tax expense.

In the reconciliation process that we're performing for the Commission it also became apparent that on

transmission there has been a significant and consistent amount of non-deductible expenditure which has resulted in increased tax over and above the 33 percent. That has not been included in our responses. When I say significant, both those numbers are over $1 million per annum.

It also became apparent that in terms of distribution we underestimated the forecast tax expense. We've provided the detail of that to the Commission staff, we won't labour that here.

In terms of the WACC, as I said, the WACC issues have been addressed by LECG. There are two points that I would make from a company perspective. The first one is simply a question of timing. We're now sitting in 2004, Dr Lally's work used 2003 numbers. We believe that the risk-free rate should be updated.

Also interestingly the Commission's model assumes a control period of five years but Dr Lally has used a risk-free rate of three years in his calculations, though, if you like, the principles that have been put forward in terms of WACC indicate that the risk-free rate should equate to the regulatory period. So we're just highlighting that as something we believe should be addressed.

Some other what we believe to be significant concerns, and when I get to the last slide where I discuss the impact of these concerns on the results, we don't go into the detail of a lot of these. A lot of these are actually represented in our written submissions. They're also represented using the different WACC levels and using the different tests that the Commission has before it. All I will talk about in a few minutes is simply the net

acquirers test.

But the sale of assets, and this relates to our distribution business, we don't believe that the gain should be included against the distribution business. The question of whether you sell something for more or less is simply a question of a market transaction. If the Commission feels that that reflects a view by the purchaser of inappropriate valuation, then even within this process, that is being addressed through the assessment of the purchaser's asset base.

So those assets may have been below ODV, above ODV, I don't know. The gain was related to the book value and simply shows that we sold an asset for more than we had it. It's not a question of NGC distribution's excess profits.

Valuation of easements. As we've submitted to the Commission before, we believe that a replacement cost should be used. These are a significant and valuable asset for transmission system, and fundamentally you couldn't run this system without them. We recognise the Commission has a different view, so we won't labour the point here.

We have outlined a more appropriate approach to indexing back for the Commission. The Commission assumed that all the easements were in place in 1974, that's not the case. There was a large increase in the length of the transmission system through the 80s. We've indicated an approach where two-thirds of the easements are indexed back to 1983 and one-third back to 1974.

The costs of control are another place where we differ from the Commission and it's not of the same order of

magnitude as some of the others but it's one that I will raise. This inquiry is a decision process and we all accept that. It's not the one that would establish the control regime and the Commissioners know better than I the extensive process that's been gone through in establishing the electricity lines business control regime.

In our view this inquiry is simply part of the light-handed regulatory regime. Every so often people would want to check whether or not returns have been appropriate and it's NGC's position it's fully happy to engage in that process. However it is an ongoing cost of business, it's like an any other business event and so the direct and indirect costs of this inquiry should remain in the Commission's model as opex.

If you are looking at the costs of setting up a control regime there will be another, if you like, engagement with whoever the relevant Regulator is should there be a control decision. If you like, that is numbers that I think the Commission have included in their model as the direct costs of control.

The last point I would make on that is that setting aside that we don't agree with the approach that's been made in the model, the Commission actually deducts more from the opex than it subsequently puts forward as being the cost of control, and I don't think that's tenable. If the operating expenses, the indirect ones, people like myself who have been in the business and are working on this, there is direct costs which are the ones where we've paid external parties for assistance, those costs are actual and have been incurred. If the Commission wants to

say that they should be a different number, we can understand how the Commission might get to that position, but it should then only subtract that number from the actual opex of the company in terms of doing the assessment.

So where does that leave us? As I said, we've put a raft of numbers in the written submissions and also in the detail of the CRA submission. We don't intend to go through them all here. What I have done here is actually put up a number of significant ones. I've put them up on the basis of their calculation on a net acquirers test as put forward by the Commission and at the 75th percentile of the Commission's WACC number.

The question of whether you're taking a forward-looking approach, in other words if we were to apply the same process as was applied in the Airports Inquiry where we'd look at the past to inform the decision and then look at the benefits of control on a forward-looking basis, the Commission's baseline is at $3.3 million, net acquirers benefit. Simply by switching to a forward-looking approach on transmission reduces the net acquirers benefits to $495,000 per annum.

I would make the point that given the difference in size, say, between NGC transmission and Wanganui Gas, in the case of Wanganui, $200,000 was considered not consequential to encourage a control on Wanganui, this is a much smaller percentage. That is one singular issue.

In terms of the Kapuni North -- and these are treated separately here, and they're also illustrated separately in our submission, the individual impacts. If the Kapuni North pipeline issue was -- our view was accepted, simply

taking that revaluation out changes the results to be a negative benefit to acquirers. I would say, reflecting back at my earlier position, that having a singular event change the decision between imposing control or not imposing control I think is significant in terms of the task that the Commission's faced with here.

If we combined all the other adjustments that we've outlined in the written submission I would say, and I put the proviso in brackets here that it's on the Commerce Commission's model, it's not possible to just do that on a forward-looking basis, so this is looking over a 12 year period, combining all those adjustment results in a net acquirers benefit of negative $2.2 million. It's a very big swing. This is at the 75th percentile. If it's at what we'd describe as a more realistic WACC number of 9.2 percent then the net acquirers benefit of controlling NGC's transmission is significantly negative.

In terms of NGC --

CHAIR: I wonder why your shareholders haven't punished you in your share price for under-achieving what would reasonably be expected by the market, when I see the number next to a more realistic WACC.

DR HODGSON: For quite a while NGC's share price was reasonably low. It's only recovered on, shall we say, speculation of what was going to happen to us in the last few months. I think with a company such as ours it is difficult to separate out the impacts of the particular businesses. Obviously there's a lot of uncertainty around wholesale gas with the Maui redetermination. When the Draft Report came out, as Phil noted, there was like an immediate downwards impact on the share price, but then

the speculation about Contact Energy and us possibly being up for sale I think threw the price up somewhat.

CHAIR: I just wanted to come back to your comment you made on common cost allocation and you indicated that in your 70E responses you put forth a percentage of 54 percent of actual. I wondered if you could give us a better feel for the justification for that.

DR HODGSON: Okay, that's by combining the transmission and distribution; the staff asked us, you know, what do these numbers add up to? Putting the two businesses together that adds up to 54 percent.

CHAIR: 54 percent of what?

DR HODGSON: Of NGC's total common costs. So what we did, and the regulations have been, shall we say, booked for being updated for a number of years, so it was clear that ACAM was going to be implemented as it has been for electricity, we built a model of what we saw as a realistic stand-alone -- NGC transmission in a realistic stand-alone NGC distribution company.

So if you look at a transmission company of this size that this business would be, the easiest example is in terms of describing it in the case of the legal staff we have, not wanting to pick on the lawyers but it just makes it easier. Steve here is the company secretary and General Counsel. We also have three other lawyers. So when we were looking at the NGC transmission we said would you have four lawyers in the company, and we said well no, we'd keep Steve but we'd probably only have one other solicitor.

So in terms of designing it, and we went through all the parts, if you like, the common costs, you know,

realistically how many accountants would you have, you'd have a CFO. When we looked at NGC distribution and say well, it's a much smaller business, would you have a Steve Bielby and three lawyers and we said well, no, you probably wouldn't have Steve. What you'd have is a senior solicitor who is also company secretary.

So basically it's like a box with people's names next to it that we had and we went through ticking them or crossing them to end up with a model of what you would have in terms of corporate personnel; what you would have in terms of computer support, obviously a bigger company like us, and we implemented big computer systems like the JD Edwards system for keeping all the accounts on that. You wouldn't expect a small distribution company to go to that same level of expense in those areas.

So we generated a model for each of the businesses which had like a -- this is based on 2003 data which was based when the company had got out of generation, got out of electricity, and said well this is what the proportions would look like, you know, for the two stand-alone businesses. That gave us a set of percentages for each category of common costs, like leases and, you know, insurance, all those sort of things, and then we used that as a set of percentages to project backwards against the common costs that were in place, you know, so we could in the past identify the bucket of common costs. What we did was try to get a robust percentage for each of the businesses so that we could say well this is what they would like going backwards.

CHAIR: I diverted you from your presentation.

DR HODGSON: That's all right, happy to explain. With NGC

distribution, and I'd make a comment here that in terms of forecasting in terms of the 70E response, we ended up making a couple of mistakes which we've notified the Commission of and it was around when we were trying to re-incorporate the gas metering business. The accountant that was involved made a couple of hiccups in his spreadsheets which lead us to a forecast set of replacement costs which, using the standard revaluation gain calculation, generated a set of negative numbers which the staff raised concerns with, and consequently the Commission adopted its own approach to our forecast distribution asset base.

I can understand the reasons why and as I say we made the mistakes and acknowledged that. We've subsequently provided corrected numbers and the issue here is that in terms of forecasting the asset base the pipelines are indeed likely to be subject to revaluations, but the gas metering assets aren't.

So the two components have to be, if you like, forecast separately and then put back together rather than simply the final ODV being inflated. So that's what we've provided and that's why the baseline number we present here is different from what's in the Commission's Draft Report.

If we simply stand today and take a forward-looking approach on the distribution business, the acquirers benefits drop to $27,000. We've also, and I should say we, CRA have outlined a model of dynamic efficiency which we believe is more appropriate for distribution. Simply put the question is, in the Commission's model it assumes in year 1 of control that there's a reduced investment of

equivalent to 50 TJs of the market. However it assumes that in year 2 and subsequent years investment has returned to the pre-control levels.

What we're saying is that without getting into an argument of what the number should be, that should be a cumulative effect. So if there's going to be reduced market growth of 50 TJs, then the subsequent year it's another 50 TJs on top, another 50 TJs on top going forward; so you have this cumulative dynamic efficiency issue associated with distribution networks.

Putting that into the model leads to a net acquirers benefit of negative $269,000. In terms of combining all the different aspects again within the Commission's model, which again isn't forward-looking it's across the whole thing, you end up with a negative $2.3 million of acquirer's benefit and again increasing the WACC makes that number more negative.

I would also add here, and we haven't included that on this slide, but these numbers we've presented here don't incorporate -- well I believe the combined effect does, but even if, say, we take the forward-looking approach that is put up for both those businesses, that doesn't correct for our inaccurate tax expense forecast that we've put to you. So there would be in the case of transmission another $2.4 million in tax that needs to come off that number, or in the case of distribution around $800,000 a year. Just recalling, they were the factors around the fact we didn't incorporate the effect of the price increase on the tax expense.

So really that is in summary, and I do say it is in summary, our submissions from a business perspective on

the Commission's model. I'm happy to take questions. As I say, CRA will be coming up shortly to discuss many of these issues from a more economic basis, but I'm happy to answer them from a business point of view.

CHAIR: I'll just check with my colleagues.

DR LAWRENCE: Just a couple of points. Firstly you would agree with the general proposition that the Commission has a responsibility to use all the information that it has at its disposal when undertaking this sort of analysis?

DR HODGSON: When you say "use", I mean "use" is quite a wide word. I would say it's, you know, the Commission can consider all the information as it's disposed. I mean they're ultimately in the position of making a judgment call as to whether that information informs the decision positively or in fact can be relied on. I mean, but certainly it needs to look at all the information before it.

DR LAWRENCE: I was just wondering what you would say to the proposition that only including forecast data is effectively throwing away much of the information that the Commission has to base its analysis on.

DR HODGSON: No, I don't accept that on the basis that the forecasts incorporate our best view of what can be informed by the past. We've indicated in there that there is volatility in our forecasts, that's provided in what we provided to the Commission. We accept that people may have different views on volatility, but you're sort of saying, well, you can sort of look at something and necessarily come up with a better view of the future than our senior management team and our board.

I guess it gets a little bit difficult. I mean that

information was not prepared for the benefit of the Commission, it was prepared for board strategy purposes and we've got people that are dealing with this all the time. I would expect if you have faith of their knowledge of the past and what analysis is available to them that they would give a reliable prediction for the future. But I accept the point there may be other aspects the Commission may want to think about.

DR LAWRENCE: I guess the point I'm making is that sure we accept that your manager should be well placed to come up with informed estimates of what's likely to happen in future years. But that, as your work points out, is by nature uncertain, but you've also got some information there that is very definite as to what's already happened. So the point I'm making is that you need to take a fairly holistic view of all of that information that is available.

DR HODGSON: I accept that, you know, as I have said, the Commission will want to consider everything. I think the usual approach though, and I mean I'm not an economist by training, but I would say that, as I understand it, the usual approach to decision-making, if you're taking an economic approach, is to take a forward-looking approach with the best information and estimates that are available to you. Indeed that's what the Commission did in the Airports Inquiry. So while it was informed by the past --

CHAIR: I think there is a bit of a problem with what you keep saying about what we did. We certainly looked at past excess returns and we would have done more than that had it not been for lack of information to do it. So I think we should argue this on its merit rather than make

comparisons to that particular case, because what we did in that particular case probably had more to do with data limitations than suggesting I think what you might be trying to suggest by referring to it. I just want to caution you on that point.

MR NICHOLLS: One piece of information that we haven't got yet is an explanation for why not use the NGC forecast apart from a broad reference to a holistic view. CRA point to the fact that it can be mined for information about variability and that sort of thing. But to average it in to sort of improve the forecast in some way, there's no explanation in the Commission's report for why that was done. So that's very hard for us to react to and very hard for us to understand why, you know, apart from a reference as to holistic view, why you haven't used the best estimate of market participants.

MR BIELBY: If I could add, having sat through the board strategy process, turn this one on its head and say if we went back to the NGC board and said which approach would they find useful, accepting fully that the Commission should look in both directions, I would strongly suspect they would not feel that the process of averaging back would help them inform themselves looking forward, they would go back to the position which we had, particularly for the reasons that Mr James outlined, that the market's changed fundamentally.

DR LAWRENCE: Perhaps we'll move on. I just want to ask some questions about the productive efficiency slide that you put up. You make some comments about NGC being a, or facing various threats if it was indeed an inefficient company, and they're related to things like take-over and

bypass and so forth. My understanding is that NGC does not have a long history, though, of being a fully commercial company. It has evolved over the last decade or so into a shareholder owned entity. It's basically operating in a market that is, to a large extent, characterised by natural monopoly features; wouldn't it be fair to assume that even with a fully commercial company it's going to take a considerable period of time for that sort of organisation to become fully efficient?

DR HODGSON: I guess there's a two step process in NGC's case. We were sold to Fletcher's in I think 87 or 88 before we became a listed company. Fletcher's had a fairly strong ethos of getting costs and value out of businesses. I would say they probably had a good first swipe at anything. I wasn't there at the time, so I'm just sort of saying from general impression.

Then we've been listed, I mean granted improvements take time, you know, we're not claiming that they don't take time, but I would say that it seems unlikely that there is a robust basis for assuming a difference in productivity. Because we are talking about ongoing productivity improvements in both cases. What I am submitting against is a claim that there would be additional productivity improvement under control as against a no control situation.

DR LAWRENCE: You make some observations about the PEG study and indeed we'll have quite a few questions for PEG on Wednesday morning, but following on from the discussion this morning I thought we got to the proposition from Mr James that basically the US was not a good comparator for New Zealand given very different characteristics of

those markets.

DR HODGSON: As with any market I would say there are huge differences, I accept that's part of the issue or the problem with benchmarking per se if you like. I think if you looked at the chart that Phil put up, the US and indeed Victoria in Australia was up in the same sort of zone of high utilisation, you know, high demand, high penetration rates. So certainly the costs there would be much lower just because of the natural virtues benefits of network economics. We on the other hand are write-down the other end.

So if anything, and I'm not, you know, we're not claiming this 30% as let's put it into the model, but what we would say qualitatively looking at the discussion you had with Phil this morning is that you would expect the costs in New Zealand to be higher than in the US, simply from fundamental network economics, without necessarily being able to quantify those.

DR LAWRENCE: I think there's two points there. Firstly the comparison you put up this morning was a very partial comparison because you were just looking at the residential component of demand, I believe, from what you confirmed when we asked that question. Looking at the overall figures in terms of demand from all sources, not just residential, I don't have the figures for the US, but certainly relative to Australia, NGC distribution actually comes through with the highest energy density out of the 14 or however many distributors it is that we've included in our study from New Zealand and Australia. Vector is also very high. There's only one other company that comes close to the two of those companies and that's actually

Allgas in Queensland. So I think you've got to be careful when you talk about energy densities because if you take a partial view just looking at residential then you'll get a very different picture to if you look at the whole situation with regard to demand.

DR HODGSON: I accept it's very difficult to look at. I'd say energy density is one aspect. Connection density is another significant aspect in that you've got every one of those connections there that you have to deal with. If you like there's 230,000 gas connections in the country if you take the reticulated market as a whole. Probably 220,000 of them or more are residential, so there's still a high cost to actually maintain networks to serve those customers.

DR LAWRENCE: I'd just like to ask you whether you think the PEG study adequately adjusts for operating environment differences. We discussed this morning that there are some fairly significant factors there that differentiate between the US and New Zealand.

DR HODGSON: Certainly my view and I would imagine the view of NGC is that we're not experts in benchmarking studies and it's really I think for PEG and yourself to discuss, because our proposition here, or NGC's proposition is not trying to say that you should be showing a productive inefficiency from control or a productive efficiency gain from control. We're saying that the factual and the counterfactual for this decision-making process cannot assume a difference in productive efficiency. Control will not improve productive efficiency over and above those drivers that I've put up.

DR LAWRENCE: This is something I'll explore with PEG on

Wednesday, but I think the point is that in reality they include very few operating environment adjustment factors. Indeed the major factors you spoke about this morning such as climatic differences and lifestyle considerations are not included in that study at all.

If I could just move on to two other points. Firstly you mentioned that in your modeling work that you defer gains in years 4 and 5 due to an incentive that's supposedly there for firms to defer benefits as they come up to the new regulatory period. Now, as I understand it the Commission has not made any forecast or comments on the type of regulatory regime that might eventually apply if indeed that does occur, but I would make the point that most other jurisdictions have introduced efficiency carry over mechanisms that actually give firms an incentive to even achieve or achieve an even spread of productivity improvement over time, including in those last couple of years leading up to the next review. Why have you not considered that?

DR HODGSON: Again I'll refer to people with more expertise than me, that Mr Horton who was here on Thursday on behalf of Powerco who has had much more experience in these matters than I indicated that those mechanisms are very difficult to implement in practice.

So we are here talking about a model, we're not necessarily saying exactly about reality, but certainly the incentive would be, and I know if I could take an analogy that I'm aware of, that actually comes from Australia where people are allowed so much capex within their five year regulatory period; there was certainly one high profile situation in the last year or two where a

company two years into its regulatory period signaled that it had actually spent all its capex that it was allowed for the next five years and wouldn't be investing in any more, I think it was electricity distribution assets. Once we get into a situation of regulatory regimes it becomes very difficult to determine how one particular aspect of it will result in behaviours or what sort of incentive it puts in place for people's behaviour.

DR LAWRENCE: I think the example you're quoting there is a different situation to the one I asked about. Perhaps we could move on to the last question that I wanted to ask you. That is that in chapter 6 of your submission you make the statement that the productivity NGC has achieved, as recorded by the Commission, would place NGC on the margin between average and high categories in the electricity lines threshold regime. I just wanted to get a feeling for what basis you made that statement on.

DR HODGSON: Yep, that was, I must admit, it's a, shall we say, a back of the envelope type calculation. If you took the study that you performed for NGC distribution simply by trying to assess what the relative growth, the index that you came up with, how that had moved between I think the study period was 99 to 2002 in the electricity lines businesses. Basically I tried to pick the same period that you'd use for the electricity lines businesses, and then using the index that you'd produced there look at it and say well how does that come out in terms of a productivity growth figure as you'd published for electricity lines businesses. I fully admit, it's my calculation, it came out to be comparable to the figure that you gave for UnitedNetworks as an indicative figure

which I believe was the tenth ranked company on productivity basis.

So that's why I say, it would seem to me, and this is simply by interpreting the information that's been put to me rather than by doing a study from scratch, that compared to the electricity lines businesses we're certainly in that region and it would certainly, in my view, not be sound to assume that we're in the lower productivity region.

DR LAWRENCE: I think you might be confusing productivity growth rate and levels there, in that the electricity groups are made up on the basis of productivity levels rather than growth rates. Indeed I think it's problematic to try and extrapolate or compare your productivity growth rate with electricity lines businesses because in many ways they're quite different markets, where I would expect higher productivity growth rates in gas given that you have much lower penetration rates into the market than does electricity. So electricity is going to be a more stable market and with probably very little change in penetration rates compared to gas. So I just caution against making comparisons like that.

DR HODGSON: Fair comment. I guess the submission I would put back is that with the exception of Powerco and UnitedNetworks, they're all community owned bodies, so not necessarily with the same productive efficiency incentives on them that we have.

DR LAWRENCE: That's one aspect, but as I mentioned the basic market characteristics are also a very important driver of the observed productivity growth rates. I'll hand over.

MR SELL: The first question I have is probably drilling down

a little bit more on the cost allocation process that you went through. 54 percent of total common costs, how does that compare with your network's revenue as a proportion of NGC's total revenue? Are you able to give some sort of indication on that?

DR HODGSON: I haven't done that, I could look that number up for you. I couldn't answer off the top of my head.

MR SELL: The second question I have, and I don't want us to get too much into accounting detail here, but I am having trouble reconciling the numbers on your slide with numbers in your report and I think I heard you say that you've also incorporated in those numbers on the slide some corrections that you've made subsequent to the report.

DR HODGSON: This slide?

MR SELL: Yes, is that correct?

DR HODGSON: In terms of the report, in the report they will show the amended baseline I believe. Which particular numbers are you having problems with, the combined bottom numbers or the --

MR SELL: Well all of them actually. I'm on page 9, for example, of your submission and what I see there is, for example, if we take the forward-looking characterisation, if we just say NGC transmission, change their minus 1,444.

DR HODGSON: Sorry, yeah in that table, in the full report from CRA there were two versions of a forward-looking number and in terms of preparing this submission we've got a bit confused in terms of which one is in here. The one that's shown on page 9 is a recasting of the whole thing.

So if you were standing with 1997 as 2005 and looking forward for a 12 year period, what would the impact be on the results as opposed to simply taking information that's

given and then looking forward from 05 to 08. So I apologise for that. The distribution one we picked up the correct number but when we came back to this, and in the CRA report it has both presented.

MR SELL: Okay, so for distribution, for example, I mean the numbers differ there as well, there's 1,050 in this report and you've got 27 there.

DR HODGSON: Yeah, in the report there's a column which is just the change or, if you like, the impact of that particular thing. What I've presented here is the net number that you end up with when you make that change.

MR SELL: So it's just for transmission that there is a table on a different basis than here?

DR HODGSON: There were two forward-looking characterisations that were in the CRA report and we intended in our written submission to have the one that was 05-08 but we unfortunately picked up the wrong number. But they are all presented in the CRA report.

MR NICHOLLS: We'll supply a corrected table.

MR SELL: In the meantime if we go to the CRA report we'll see one that reconciles with the numbers on your slide will we?

DR HODGSON: With the exception of the corrected forecast tax which also flows into the combined numbers. We only became aware of that when we were doing the reconciliations recently for the Commission.

MR SELL: The next question I have is one about the concept, or one of the concepts that the Commission has applied. We may well come back to this after CRA, but I wondered if I might just ask you a simple question about it. When it comes to analysing just a partial period, let's not worry

for now as to whether that's partly historical, partly future or whatever; is the problem that you have with that a problem to do with the asymmetry of it that the Kapuni example, if you like, where we're leaving out one side of an adjustment and only putting in another, or do you have some other more fundamental concern with just analysing partial periods?

DR HODGSON: I think the example if we go back to those tables, is that expecting NPV to equal zero over a partial period is unlikely to be the same as NPV equals zero over the full asset life. There's a fundamental mathematical sampling issue there which I think it is actually reflected in the table that we show. So we then end up with -- on top of that you have this situation of one-off events that may not be treated on a symmetrical basis.

MR SELL: So you do have a difficulty with the mathematics, the financial mathematics, if you like, of just looking at partial periods.

DR HODGSON: Yeah, I guess what we're trying to highlight, we have an issue with it, we recognise that obviously there has to be some form of assessment so we can't just say let's not do it, but I think we're saying that you have to be very careful how you interpret the inputs when you're doing an analysis like that and what sort of results you draw from it and particularly the sensitivities around issues, if you have a one-off event that's included but not, you know, the corresponding event's not included. So we're recognising the raft of difficulties associated with it.

MR SELL: Is this something that CRA are going to cover to some extent in their presentation as well, or should we

deal with it all now?

DR HODGSON: I believe Professor Evans is going to discuss the construct of NPV equals zero but also in more detail how it applies to the Commission's assessment.

MR SELL: Maybe it's best if we come back to it after that session if that's okay.

MS BEGG: You've made the case I think that we should be using an ex-ante approach to using optimisation and stranding risk and you've also said that NGC itself prices on that basis. It doesn't price on an ex-post basis where it recovers a stranding cost when an event occurs. You've also given us numbers that suggest for NGC transmission that stranding and optimisation are quite significant, 29 percent, 36 percent etc. I just wondered, therefore, in operationalising, if that's a word, the ex-ante approach which NGC says it uses, what model you've used, or what approach you've used to assessing what the ex-ante margin should be which you'd add on to your WACC and also for the Commission if we were to apply your approach, how should we assess that margin?

DR HODGSON: I guess there's the issue of a margin and I guess it's a question that Ian, when he's doing the pricing, is saying what do we think is a reasonable fair return on these assets and he looks at that. Whereas in this type of process we're to some extent stuck with the CAPM model and then it becomes a question of what margin should we have over and above that. We obviously have some people that do those sort of calculations but we don't say what is the margin over WACC unless we're actually talking about the type of approach that you're doing.

We're saying, and I think Phil's on record at an

investor conference as saying, when we're looking at our returns going forward then we're looking at opportunities that are somewhere between 8 and a half and 10 percent post tax returns. Different investments will have different rationales to them. But that's what, if you like, the company as a whole is looking at. So within the company in terms of opportunities different business unit are competing to try and attract the investment dollar from the board.

MS BEGG: So would it be fair to say that if you use CAPM to get a WACC you'd get a lower number than your 8 to 10 and your 8 to 10 incorporates these optimisation risks, although it sounds like you haven't formalised the assessment of them?

DR HODGSON: I guess the WACC issue is a complex one for experts. Certainly the work that we did at the framework stage with Tony van Zijl and Glenn Boyle produced a midpoint WACC for 9.6 as a reasonable return for gas transportation businesses. Clearly Dr Lally has a different view.

MS BEGG: But if you're saying that your advisors say that 9.6 is a reasonable WACC derived from CAPM, are you then saying you're actually not applying any margin for the optimisation of risk, which doesn't seem consistent to me with the ex-ante approach that you're suggesting. Either you compensate ex-post when an adverse event occurs, or you have like an insurance premium in your pricing.

DR HODGSON: I guess the difficulty is when we're assessing opportunities we're trying to take into consideration the risk from a commercial perspective. What I can say is the ex-post approach won't work. I mean the example of

stranding that's about to happen that we've indicated through an alternative fuel was driven by one of our shippers who, shall we say, has interests in other energy forms. If that asset is stranded out and we turn up to them in the next year and say thanks for doing that investment and by the way can we have our $X million back through your other revenues we're going to get a fairly short answer from them.

So what I'm saying is the assumption of ex-post recovery in terms of this model does not reflect reality. And even if it did, say, for example, that, just to pick a number, say the regulatory WACC was 8 percent and we had an asset that was stranded and we said right, let's go and put our prices up in subsequent years, and this really comes to the issue of under-recoveries and over-recoveries as well, so it sort of applies in the idea if we have an under-recovery or unexpected cost.

But we decide next year we're going to put our prices up by whatever number, so that in that year we get a return of 9 and a half percent rather than, if you like, what is the accepted level of 8 percent. When people actually look at us in our disclosure accounts they're going to say you guys are getting 9 and a half percent, that's not on.

So the system isn't set up with the ODV process to allow ex-post recovery. If it was to allow ex-post recovery then those stranding events would be reflected in the way we've -- you say, well okay, you're allowed a return on your depreciated replacement cost rather than on your optimised and EV written down costs. That way when you looked at the 9 and a half percent you would actually

say the 9 and a half percent on ODV is only 7 percent on depreciated replacement cost, therefore that's fine.

But it's not, and you know, it's not really my place to speak for the shippers, but they are supportive of the ODV process, they are insisting on that because they believe that we should bear the risks of stranding and we should also bear the incentive to make sure stranding doesn't occur or to do something about it when it has occurred.

MS BEGG: When the Commission does its assessment it seems to me we have a choice between imperfect alternatives. We can choose to do it on an ex-post basis, which you say doesn't necessarily reflect your pricing, or we could try and do it on an ex-ante basis, but nobody's giving us any guidance as to how or what approach we should take to estimating that margin, and I just think that if you have any more thoughts at some stage on that, perhaps in cross-submissions, you could give us some advice on how you think you do it and how you think we could equally do it.

I note for some things like disasters and so on where it's also suggested that the risks are asymmetric and an ex-ante approach is adopted by the companies; I note there's an additional difficulty there for us if we went to an ex-ante approach that we'd then have to take out of the cashflows the actual costs that have been incurred and I suspect the companies don't actually have the information that would allow that. But maybe because those events are move matched in that adverse events more closely match expectations that might be less of an issue.

But perhaps it would be useful to us I think if, instead of just telling us we should be using an ex-ante

approach, you give us some better guidance on how we implement it so we can then assess whether the errors that might be associated with trying to implement that, guessing or estimating some ex-ante figures, how that matches, you know, the problems that you have highlighted might be occurring because we're using an ex-post approach.

MR BIELBY: Just on that, I think that's something we should try because, going back to the comment about a pick between two imperfect models, what we're saying firmly is the real world for us is one side, so I think it's a good challenge for you to give us. Mr Wilson's probably the best person to answer that, so we might be able to get him back today, but otherwise I'm sure we'll be able to respond to that, because yes, we've done that process every year, and I guess that's the force of our submission to you that that's the way we do approach it, so again it's a fair challenge on your part.

MS BEGG: Thank you. I had just one other question. That was I think you said that NGC was under control at the time that the North Kapuni line was stranded. I just wondered if you knew how that was treated under the regulatory regime of the time. Was it left in the asset base or was it taken out at that time?

DR HODGSON: It was stranded long before then because the Maui field came on at the end of the 70s.

MS BEGG: So was it still in the asset base or not?

DR HODGSON: I wasn't around at the time. I wouldn't be able to answer that off the top of my head.

MS BEGG: It would be slightly interesting, because you're suggesting to us there's an asymmetry in treatment and I