

**HOUSE OF ASSEMBLY**

**GOVERNMENT BUSINESSES SCRUTINY COMMITTEE**

**Wednesday 1 December 2010**

**MEMBERS**

Ms Archer  
Mr Gutwein  
Mr Morris (Chair)  
Ms White  
Mr Wightman

**SUBSTITUTE MEMBER**

Mr Booth

**IN ATTENDANCE**

**Hon. Bryan Green**, Minister for Energy and Resources

**Ministerial Office**

**Ms Alison Turner**, Adviser  
**Mr Gary Swain**, Head of Office

**Transend Networks Pty Ltd**

**Mr Don Challen**, Chairman of the Board, Transend Networks Pty Ltd  
**Mr Richard Bevan**, Chief Executive Officer  
**Mr Paul Oxley**, Company Secretary

**The committee met at 1.37 p.m.**

**CHAIR** (Mr Morris) - Welcome to the GBE scrutiny of Transend.

**Mr GREEN** - I would like to congratulate Transend on a successful year in 2009-10. Transend's financial and service performance for the year was strong. The year 2009-10 was the first year that Transend operated under the Australian Energy Regulator's review determination

after the challenge that was upheld by the Australian Competition Tribunal. Transend met all service targets set under the regulatory process, including the number of loss-of-supply events and the availability for transmission lines and transformers. The company's financials were strong with a profit of \$26.4 million, an increase of \$14.5 million over 2008-09 off a revenue of \$183.6 million.

Transend had a significant capital program during the year with some \$144 million of expenditure on various projects. It is important to remember here that this investment is critical in both maintaining and improving the security and reliability of the State's transmission network. Returns to owners were healthy, with the company returning a dividend of \$13.2 million.

During the year Transend participated in an international benchmarking study, which ranked the company among the top performing electricity transmission businesses in the world. In short, it was ranked as a strong service performer with relatively low cost.

As I mentioned yesterday in the Hydro Tasmania GBE scrutiny, 2009-10 was a challenging year for our electricity businesses. We do have an expert panel review upon us this year, which I am very much looking forward to. As I have indicated in the past, it is my expectation that Transend, as with other electricity businesses, will be able to make a positive contribution to the panel's work.

I would like to take a moment to acknowledge the contribution of the former chair, Ray Brown, who is sitting in the room today, chairman in 2009-10; as well as Christine Bell and Guy Peltzer, who have completed two-year terms. I would particularly like to acknowledge at the beginning of today's proceedings the outgoing managing director, Richard Bevan, for the outstanding contribution he has made to the company. His efforts have been considerable and are greatly appreciated. I am sure he will continue to contribute to the future development of the State's energy industry, including his role on the Renewable Energy Development Board.

We are looking forward to the future. I welcome the appointment of Don Challen as a director and chair on the board. Don and the new CEO, Peter Clark, will no doubt provide exceptional stewardship of this company that is already successful and very important to the Tasmanian community.

**Mr GUTWEIN** - One person you did not mention was John Lord; how long was he chairman at Transend?

**Mr BEVAN** - John was chairman for about 10 years. He stepped down at the AGM last year.

**Mr GUTWEIN** - We haven't had the benefit of a hearing in the lower House since, so I would like to put on the record that I thought he was a very good chair for the organisation.

**Mr GREEN** - I would endorse that, and obviously he is now doing some very important work for us on the Irrigation Development Board.

**Mr GUTWEIN** - The company's financial performance is very solid, so I would like to explore the impact of that debt-for-equity swap that occurred a couple of years ago with Hydro. What has that cost the company in interest payments internally and what returns might the company have been able to provide if it hadn't had to take on that extra debt burden?

**Mr BEVAN** - There were two tranches of money transfer from Transend. There was a \$50 million equity transfer and then a \$220 million debt swap, which effectively meant that we had \$270 million extra debt on our balance sheet. It is fair to say that Transend at that point in time was very lightly geared in terms of its balance sheet. That was a function of history in that Transend was set up debt-free on the basis that we had an extensive capital expenditure program in front of us. It is true to say that the extent and rate at which we went into debt was lower and slower than might have been anticipated at the time, so we ended up in the situation a few years ago where our balance sheet was very lightly geared; I think it was around 16 per cent. As a consequence of those decisions taken by the shareholders, you will see by the report that we are around about 49 per cent geared. That is based on the statutory accounts, bearing in mind the regulator uses a benchmark gearing ratio for determination purposes of 60 per cent. That is based on the regulatory value, which is slightly different to the statutory value. We have looked at the impact of that, primarily rolled through in terms of cost of interest.

**Mr GUTWEIN** - What would that cost of interest be?

**Mr BEVAN** - I think it was around \$32 million a year extra - \$270 million borrowings at around 6 or 7 per cent.

**Mr GUTWEIN** - Gee, \$32 million would be high.

**Mr OXLEY** - In the 2009 year it was about \$20 million.

**Mr BEVAN** - We are now up to \$30-odd million of interest moneys in total.

**Mr GUTWEIN** - So this has added about \$20 million?

**Mr BEVAN** - I think it's about \$12 million.

**Mr GUTWEIN** - That would still be light on \$270 million.

**Mr OXLEY** - In the previous year it added about \$20 million to the total interest cost.

**Mr GUTWEIN** - So roughly what interest rate would you have been paying on that? It sounds extraordinarily high if it's over \$20 million. It would have only been around 6 or 7 per cent, wouldn't it?

**Mr BEVAN** - I don't have those numbers with me, but we can get you some detail on that.

**Mr GUTWEIN** - Just taking a stab in the dark, if it was, say, 7 per cent on \$200 million, that would be \$14 million, and then close to another \$5 million, so just under \$19 million for the cost of that. You have obviously had to meet that cost, so with your normal dividend payout ratio being 50 per cent of the profits that you have achieved, would it be fair to say that over the last couple of years the dividend returned to the State could have been higher by roughly 50 per cent of that interest cost?

[1.45 p.m.]

**Mr BEVAN** - It flows straight through to the bottom line as an interest cost.

**Mr GUTWEIN** - Obviously Hydro in the last couple of years have not provided any return to government - a very small one last year and then they declared \$10 million this year. What is your view on the decision to move equity from Transend to Hydro and load up Transend with debt - since 30 June 2008, so it is a couple of years now - which has effectively cost the Tasmanian budget around \$20 million?

**Mr GREEN** - With respect to the debt Hydro would have had if the equity injection not been made, there has been a saving in interest payment as a result of that on Hydro's balance sheet.

**Mr GUTWEIN** - But no return to the State as a result.

**Mr GREEN** - The point is, though, that it has helped return Hydro Tasmania to a strong financial position. As you know, part of the impact of the drought was to make it a difficult climate for Hydro Tasmania to operate within.

In terms of the strategy with respect to the equity injection into Hydro Tasmania, from a philosophical point of view and from the point of view of the Government wanting to be prudent in terms of its management of the GBEs, I assume all of that was taken into consideration as part of the transaction.

**Mr GUTWEIN** - Would it have been as necessary to provide that equity transfer to Hydro if the Government had not taken out roughly a similar amount in special dividends through the first part of this period?

**Mr GREEN** - I was determined to get through this GBE hearing without trying to play any politics around these issues, but having taken a position in the last State election with respect to GBEs, I think it is a little rich that you would pose that question -

**Mr GUTWEIN** - We were not talking about taking special dividends out; we were actually talking about getting them to run a little bit like Transend runs.

**Mr GREEN** - When special dividends were taken the State of Tasmania was in a vastly different position than it is now with respect to the way the economy was operating. The special dividends were designed to provide infrastructure development opportunities for the State with a view to getting the economy going. I still believe they were prudent and reasonable decisions to have been made at that time.

**Mr GUTWEIN** - In regard to Transend's current debt situation, what is the total amount of debt that it currently carries on its balance sheet?

**Mr BEVAN** - At 30 June this year it was \$518 million.

**Mr GUTWEIN** - So you would have been carrying about \$248 million otherwise.

Whilst Transend has had a good performance financially, the reason is that you have been able to charge a higher rate for the transmission services that you provide as a result of the termination that you received. I have done my best to understand this but I think it would be a useful thing if you could unpack how you go about requesting the extra income from the AER? Whilst there are obviously a number of different aspects to that I would like to break it down into a broad selection of elements as to what makes up the cost request. Whilst you have had a good

financial performance, you do fly under the radar and those costs do form part of people's electricity bills.

**Mr BEVAN** - Absolutely, and we are very conscious that is the case.

The first comment I would make is that the regulator process is quite exhaustive. We are required to make a revenue application to the Australian Energy Regulator and submit that 13 months ahead of the date from which the new determination was started, and I suppose that is to unpack it, in broad terms. The key focus is on our capital expenditure requirements and our operating expense requirements. It is important to note for the determination that we have just been through because the regulatory arrangement changed from what was referred to as 'ex post', that is review backwards, to 'ex ante', review forwards. Every capital dollar that Transend spent from 1 January 2004 to what we would expect to spend through to the period 30 June 2014 was under review, so it was a 10.5-year review period for our capital expenditure. For operating expenditure it was a looking-forward review of what we believed we needed to run the business efficiently and effectively for the period from July 2009 to June 2014, so a five-year looking forward. It is effectively looking forward at least five years and in the case of capex, it is about a seven-year forward look because clearly we will start to spend some money on some projects that may not be completed throughout the period.

The regulator then engages consultants, experts in the field, to go through our application. Again that is quite an exhaustive process with public consultation and public submissions invited. The regulator comes out with a draft determination that is again subject to public consultation processes and we then have the opportunity to submit a revised application in the context of anything that may have come through those consultation processes, which we did. We submitted that in early January 2009 and had a win. You will never get everything that you ask for, the regulator will always be looking to trim you back, and that is their job.

We then got a final determination from the regulator, and the issue that I think you were alluding to was when we challenged the regulatory determination, which is the weighted average cost of capital, and there was then a subsequent challenge when we, along with TransGrid in New South Wales and the four distribution businesses in New South Wales, collectively challenged the regulator. We won and it resulted in an extra \$80 million of revenue for Transend over the five-year determination period.

**Mr BOOTH** - With the notice that you provided to the committee today you mentioned that over the 12 months to 30 December you performed well in the loss-of-supply events through liability measures, but you go on to note that there were two less-than-one-minute system outages or collapses, would you call it?

**Mr BEVAN** - System events.

**Mr BOOTH** - A system event and one of these exceeded two minutes. When you call it an 'event' presumably that means a complete loss of supply, does it?

**Mr BEVAN** - To some customers. It is certainly not the whole system, which we would refer to as a system black, which is pretty catastrophic. There would be some customers impacted by those events but certainly not everybody.

**Mr BOOTH** - Is it by loss of supply or loss of voltage within acceptable limits?

**Mr BEVAN** - No, the loss of supply measure is loss of energy served, so someone's lights are off.

**Mr BOOTH** - Do you wear any liability for that if someone's processing system breaks down as a result or they burn out a motor because it has stalled and it then has to be restarted?

**Mr BEVAN** - Not directly, but certainly we end up with unhappy customers when we have an event that curtails their supply.

**Mr BOOTH** - Have you had some unhappy customers as a result of those?

**Mr BEVAN** - As you will see from the report, we actually have quite a small number of customers, given that our major customer Aurora is the customer interface for the domestic and commercial customer base. But certainly with our major industrial customers - companies such as Rio Tinto and Nyrstar, for example - we have very strong relationships with those businesses at a senior level - at an operator, control room-to-control room level - and while it is absolutely our endeavour not to have these events, sometimes they do occur and we have excellent relationships in terms of restoring supply, joint reporting and investigating in terms of what might have happened. Often it is not just an issue on our side of the plant. Sometimes they may have plant issues within their own premises that could contribute to, or be impacted by, the loss of supply. We have very good relationships with those customers at a technical level.

**Mr BOOTH** - Were these failures due to your infrastructure failing, like a transmission line going out, or is it to do with SPS not operating properly, not responding, or a generator failure?

**Mr BEVAN** - The system protection scheme that you refer to has operated very well since its inception and we are very pleased with that. The failures that have been recorded during the year have been associated with plant failure and our substation equipment, transmission line equipment and sometimes the protection and control equipment that oversights the operation of those assets. So it has been mainly in those areas rather than anything associated with Basslink or the system protection scheme.

**Mr BOOTH** - Your own infrastructure failed, like a transformer or something like that?

**Mr BEVAN** - Yes.

**Mr BOOTH** - So is Transend now responsible for maintaining grid stability, frequency stability within the bands of accepted variation?

**Mr BEVAN** - That is actually a responsibility of the Australian Energy Market Operator, they are effectively the system controller. Our obligation is to provide a system that is operable for them, but in terms of what generation gets scheduled to supply what loads, that is actually the responsibility of the Australian Energy Market Operator in their role as the system operator, bearing in mind they also have a role as the market operator.

**Mr BOOTH** - But the actual stability of it, your SPS has to be able to respond quickly enough to maintain voltage stability and frequency.

**Mr BEVAN** - We present a system to them and the technical term that is used is that we provide the system to them and say here are parameters within which you can operate the system and we provide mathematical equations to say that under these circumstances you can put this much electricity through this line or whatever. It is then the responsibility of AEMO to dispatch the system, scheduling generation to serve the load within those parameters.

So the system operator will not run the system in what they refer to as an 'insecure state'. They will manage the system within the constraints that the system presents to make sure that the system does not move into an unstable state in relation to voltage or frequency, for example.

**Mr BOOTH** - So wherever you had an infrastructure breakdown you always had sufficient redundancy or capacity in the system to divert around that problem?

**Mr BEVAN** - Not necessarily. In some cases we have a single transmission line - for example, the line to St Marys and Avoca is a single line. So if that line goes out there is no redundancy. In other areas we do have redundancy.

**Mr BOOTH** - But in this instance, up to 31 December 2009, over 12 months prior to that, you did not have any events beyond two minutes, which presumably means that none of your single lines went out with an infrastructure problem or a bushfire.

**Mr BEVAN** - It depends. What is referred to as a 'system minute' is the equivalent of having the whole system off for one minute. It translates to roughly having 30 megawatts of energy unserved for about an hour. If for example we had a trip on the transmission line to St Marys, if it was 30 minutes for the one hour, then that would equate to one system minute, so it would not exceed that two system minute target. But also to note that in the last determination the regulator has lifted the bar so now, rather than reporting against system events upgraded to two system minutes unserved energy, it is now greater than one system minute. It halved or doubled, depending which way you want to look at it, the challenge for Transend to meet that service.

**Mr BOOTH** - Are there any areas where the infrastructure does not have sufficient redundancy with it, where you are looking at major upgrades or significant upgrades across the system that you are currently dealing with in forward planning?

**Mr BEVAN** - The biggest project on Transend's books at the moment is the Waddamana-Lindisfarne project and if you have driven up through the Brighton bypass recently you will see the towers and the conductors are being helicopter strung almost as we speak.

**Mr BOOTH** - That project has been going for some years, hasn't it?

**Mr BEVAN** - It has been on the books for quite a long time. Construction started not that long ago. It will be completed in March 2011 and it is a good example of how we have been building additional capacity into the system. For example, at the moment the only 220kV supply point into southern Tasmania comes into Chapel Street substation. This will give us a second 220kV injection point at Lindisfarne so that gives us some diversity and redundancy in the system. It also helps with a particular constraint that we currently have in managing high winter loads in southern Tasmania in the absence of Gordon Power Station being available for generation.

**Mr BOOTH** - That is the one that goes through Toehold Farm on part of its run, is it?

**Mr BEVAN** - The Waddamana-Lindisfarne line is the one that goes through Toehold Farm, along with a number of other existing transmission lines in that area.

[2.00 p.m.]

**Mr GUTWEIN** - In regard to talking about transmission lines and where you have been investing, just so I am clear, from 2004 to the end of 2009 the AER allowed for just under \$400 million worth of capital expenditure - \$385 million. How much capital expenditure have you factored into this next five-year period?

**Mr BEVAN** - It is around about \$600 million, so it is an increase, noting that the Waddamana-Lindisfarne project, which is one project by itself, is around about \$130 million, so it is the biggest project that Transend has ever undertaken, and while we have an ongoing capital investment program, the largest projects on that program are probably in the order of some tens of millions rather than \$100 million-plus.

**Mr GUTWEIN** - That was one of the things that struck me when looking at it, and what capital expenditure was moving forward. It seems to be a significant increase over and above what you did in the previous five years, almost a 50 per cent increase of capital expenditure. Are you playing catch-up, or are there other factors driving this?

**Mr BEVAN** - It is a bit of both. When we started this fairly extensive capital refurbishment program, which was in fact announced by Robin Gray when he was Premier in 1995, he announced a \$500 million upgrade as a requirement of the transmission system, and we have been diligently working away at that over the past 10 years or so. It is probably fair to say that we are coming towards the end of the major rebuild of existing infrastructure in terms of very large-scale projects, but there will always be an ongoing requirement to meet additional low growth. For example, in the Launceston area the wood heater buy-back program has seen quite significant electrical load growth. As an example, if you go back to 1998 we had two substations in the Launceston area supplying Launceston, which were Trevallyn and Norwood. We now have four and we are about to build a fifth, which gives you an idea of the increase in demand, primarily Aurora's domestic and commercial customer demand in the Launceston area. We do not build assets for fun. We build them because there is a need driven by customer load or generator to serve them.

**Mr GUTWEIN** - Obviously, and I am certain that is the case. I guess where I was leading to was that there is just under \$400 million of capital expenditure in the previous five years and \$600 million this coming five years. I note from your load projections which you have included in the annual report with the low, medium and high strategy, that even at the high strategy end I think it is just slightly more than a 2 per cent increase in demand over that period. On the basis that your costs flow through into everybody else's cost base, do you think there will need to be such an aggressive investment in capital expenditure in the next five-year period?

**Mr BEVAN** - No. As I am saying, I think we are starting to see that the big investment program will start to roll over. It certainly will not come back to nothing -

**Mr GUTWEIN** - No, I accept that.

**Mr BEVAN** - but bearing in mind that generally speaking transmission assets have a useful life of around 40 to 50 years, 2009 was in fact the 50th anniversary of 220kV in Tasmania, so the



backbone of the system was basically built from the very late 50s through to the 60s, and early 70s, basically to connect remote hydro power schemes on the west coast, Gordon for example, and much of that kit is coming to the end of its useful life. So we do end up in the transmission business with sort of big chunks of investment that are driven to some extent - we certainly do not replace assets just by age - but to some extent you do end up with some chunky investment profiles that are really a function of when you last invested in the system. So we are seeing a rebuild of the system, which is pretty much complete, but we are also seeing some investment for augmentation to account for increased load growth, and I mentioned areas like Launceston. We are currently building a substation at Mornington in the eastern suburbs of Hobart to serve Aurora. You only have to drive to the airport to see all the buildings that were non-existent three years ago. In Kingston, we are upgrading the supply point at Kingston for Aurora again, with quite strong domestic growth in that area. We are also upgrading the transformers at Sorell at the moment. That is one of the highest residential growth areas in the State. So we are always looking to the future to see what we need to do to meet the customer's demand. If you read the annual planning report which is on Transend's website, that gives you a very good forward picture of our profile of assets, especially substations, when we expect them to reach full capacity, when we are planning to do something about that, for example.

**Mr GUTWEIN** - What I am looking for is just a glimmer of hope on the horizon in regard to energy prices.

**Mr GREEN** - But the percentage of transmission to energy cost overall is about 17 per cent.

**Mr BEVAN** - In Tasmania, for the next year, it is about 17 per cent, which is a little bit higher than it has traditionally been because of the impact of the price-smoothing that was applied by the local regulator for Aurora's next determination.

**Mr GUTWEIN** - So out of somebody's bill it is around 17 per cent?

**Mr BEVAN** - At the moment.

**Mr GUTWEIN** - What has been the increase in percentage terms that the regulator has allowed you over this next five-year period? Is it around 15 to 20 per cent per year?

**Mr BEVAN** - I do not have that figure at hand. But certainly it is going up and I think the unfortunate reality is that the delivered energy prices in Australia which has had, traditionally, some of the cheapest prices in the world, are only going in one direction and that is up. Some of the things that are adding to that are things such as increased contractor costs, increased product costs, and the expectation of the community to have smart grids, for example, which will mean more network will be required to support it. Then there is connecting renewable generation, much of which is remote. Take wind farms, for example, where the network costs can be quite considerable. There are some reviews going on in the national regulatory space at the moment about who should pay for those transmission connections but, ultimately, it is going to land on a customer's bill and I think the sad reality is that energy prices in Australia, delivered energy prices, will only increase. The issue is, by how much and how soon.

**Mr GUTWEIN** - So is it fair to say, just looking at your income statement, that the difference in your revenue this year to last year is about \$23 million. You had a base last year of \$145 million and I have not done the calculation but it looks to me to be around 16 or 17 per cent. Is that going to flow through to next year?

**Mr BEVAN** - No, not on the numbers that have just been provided to me. The percentage price increases, based on the decision after the MRETS review, for 2010-11 was 21 per cent. The subsequent years are 4.3 per cent, 8.3 per cent and 8.3 per cent, respectively.

**Mr GUTWEIN** - So 21 per cent, 4 per cent, 8.3 per cent?

**Mr BEVAN** - And another 8.3 per cent.

**Mr BOOTH** - You were talking about the assets having a 50-year average life, or words to that effect. Do you upgrade something as a result of need for greater capacity? Does that usually then take into account the requirement for maintenance and just straight-out replacements, say, of a transformer? Are they often replaced because you need a bigger transformer? If that is the case, then do you capitalise that as a new asset or do you put it down as repairs and maintenance and write it off in that year? How do you treat your asset management depreciation schedules?

**Mr BEVAN** - The simple answer to that in terms of accounting standards - and I am not an accountant - is that if you are replacing like with like then it is operation and maintenance. If you are augmenting the capability, then it is capitalised. So new transformers, for example, we would be capitalising and operating -

**Mr BOOTH** - If they are bigger?

**Mr BEVAN** - If they are bigger.

**Mr BOOTH** - Only if they are bigger? If you replaced like for like would you capitalise that or would you just regard it as a cost to be subsumed in that year?

**Mr BEVAN** - For something like a transformer, that is a capital upgrade. It gets a bit tricky with transmission lines in terms of what are the unit's property, is it one tower or one set of conductors, is it the whole line or is it the substation equipment, at the end. But, clearly, we have to obey the accounting standards of the day in terms of how we financially report the business.

**Mr BOOTH** - How do you analyse or what sort of modelling do you do for future demand? You said there that you were talking about perhaps an increase in need for capacity if smart motoring comes in, for example. How are you determining the likely take-up? What sort of thing do you take into account? Are you looking at plug-in cars, for example, or different appliances, more air conditioning, more computers?

**Mr BEVAN** - It is a very interesting question. It really is a bit of a crystal-ball exercise. As you will see on page 9 of our annual report, we have a low case, a medium case and a high case. How do we develop those cases?

**Mr GUTWEIN** - I was interested in the major industries in 2019-20, I think, in the high case.

**Mr BEVAN** - I think the pulp mill was expected to come on board. We make no apology for this, we are making -

**Mr GREEN** - Don't go pouring petrol on it. Everything's going beautifully.

**Mr GUTWEIN** - Is it going to take you 10 years?

**Mr BEVAN** - We are making some prognosis and some econometric analysis of what the options could be. We are not making a judgment one way or another, but in terms of a high case, if a major industrial load were to come aboard, then we need to understand what the consequences of that might be. We go and talk to our customers, and our biggest customer is in fact Aurora, and then the other major industrial customers. We have active dialogue with them - 'What do you think might be happening in your plant? Do you see your load increasing or decreasing?' We then use an external consultant, NIEIR, to do econometric analysis of what that means in terms of high, medium or low cases. In simple terms, that is what is presented in the business case. If you 'back-cast' our analyses over the past four or five years, it has actually been pretty good in terms of where the load is at and how the demand has eventuated compared to what we predicted over the past few years, as best we could. Obviously the further out in the future the more uncertain it becomes in terms of what might occur for generation but especially for load customers.

**Mr BOOTH** - Do you have a proactive form of research as well or is it just by osmosis and people coming into Aurora?

**Mr BEVAN** - No, econometric research is proactive, as opposed to extrapolative, just joining the dots from where it's come from. There is a combination of both.

**Mr BOOTH** - Yes, but the actual data you get, you mentioned that some of it comes through Aurora and some through your major customers. Is there any other proactive thing where you're looking at talking to DED or some other agencies or doing your own analysis of future likely trends?

**Mr GREEN** - They should get on the phone to you.

**Mr BOOTH** - Well, they could do that but I think they probably want better advice than that.

**Mr BEVAN** - We are happy to talk to anybody. A good example, going back a few years ago, was the impact of the gas pipeline and gas availability in Tasmania. The analysis that NIEIR did at the time was to say, 'Well, here's a view as to what might be the consequence of gas in terms of commercial loads, gas for domestic heating. Is that going to suppress electricity demand in Launceston, for example?' They're the sorts of analyses that people like NIEIR perform for us.

**Mr BOOTH** - Do you think that smart metering will decrease your peak load requirements for transmission or make no difference? What is your view?

**Mr BEVAN** - What I refer to as the 'smarter network' of the future - I don't like the term 'smart network' because the networks are already -

**Mr BOOTH** - Not Aurora's use of the term, you reckon?

**Mr BEVAN** - I think the smarter network of the future certainly will give some opportunity to load-shift and perhaps reduce peak demand, because both transmission and distribution systems have to be built to meet the peak demand and in some jurisdictions such as South Australia, for example, they have a huge investment for a very short number of days when it happens to be very hot and their air-conditioning load is high. In Tasmania it is not so bad because we have a very

strong 24/7 industrial baseload but we still have some peaks and troughs in our load demand. I think the smarter grid does give some opportunity to perhaps smooth that out a bit. To take your example of plug-in electric vehicles, you might charge them in the middle of the night rather than go home and plug it in at six o'clock when you are trying to cook tea and demand on the system is high. The point I was making earlier in terms of network costs is that to implement smarter grids and things like time-of-use metering or whatever will require some investment upfront before you start to get the return that might translate into lower than otherwise costs for customers. It is not going to come as a free kick, that's the point I am trying to make.

**Mr GUTWEIN** - But that is not a cost you would be bearing, is it?

[2.15 p.m.]

**Mr BEVAN** - I think the issue for smarter grids in the first instance is more likely to be an issue for Aurora than Transend, but ultimately it will roll up to be a transmission issue as well as a distribution issue - it is a network issue.

**Mr BOOTH** - The question is whether in fact it is going to make any difference in terms of your requirement for peak load capacity because unless you can convince half the population not to have toast and coffee in the morning I cannot see it is going to make a difference to your transmission task. Is that a reasonable comment?

**Mr BEVAN** - In early days I think that would probably be a good comment but one of the things that we are doing that is mentioned in the annual report is that, while these load forecasts go out to 2024, we are at the moment completing basically a vision for the transmission business out to 2040, and even at very modest load growths the compounding rule of 72 applies, so if you have a 2 per cent load growth in 36 years it is doubled. So even while you could look at those figures and say that the load growth in Tasmania is not all that high, when you start to look at that on a 40 and 50-year horizon it starts to be immaterial in terms of what amounts of energy we would be required to transport through the system, where the generation sources are likely to be, where the load sources likely to be. I acknowledge that it is a bit of a crystal-ball game but we cannot afford not to be looking at it.

**Mr BOOTH** - Have any of your distribution lines reached the peak of their capacity and there is no redundancy left in them for increased consumption driven by either more appliances or more customers?

**Mr BEVAN** - There are certainly some transmission lines that in summer conditions when the thermal capability of the lines is lower because of ambient heat are actually at full capacity and in some cases we have to back off the load, but one of the comments I would make is that we have been leading the charge in Australia in terms of what we refer to as 'dynamic rating' which is looking at the real-time conditions - how hot is it, is it sunny, is the wind blowing, what is the rating of this line at this particular point in time - and we telemeter that data to the national operator every 60 seconds saying that this is the capability of these assets for the next 60 seconds. We are not just doing the desktop average and saying, 'On balance you might be able to get so many megawatts of power through this line', we are actually in real time assessing what the capability of that line is. That has enabled us to defer quite a significant amount of capital and that is on the positive side, but on the negative side it has exposed some weaknesses in the system that under very hot ambient load in sunny conditions some of the very early lines that were built in the State have very limited transmission capability; you almost have to switch them off to make sure. The critical issue is conductor-to-ground clearance so we are always monitoring to make

sure we do not exceed minimum clearance levels. Again, the annual planning report gives you some data on where the constraints in the system are, what is driving those constraints, whether it is thermal rating, frequency control or voltage control, some of those other technical aspects that you were referring to earlier.

**Mr BOOTH** - How do you shed the load on some of those systems? If they are not on a line, say there is a major industrial end of that transmission line, have you got lines there that have simply reached their capacity and do not have any contracted thermal shield type of thing that you can switch on and off?

**Mr BEVAN** - In the areas where we have had the problems most often there is a major industrial customer that we can discuss with them a back-off load, but there are alternatives. For example, we know where our pinch points are in the system and there are other mechanisms that we can use. If, for example, we had some stands that were low clearance under certain conditions we can in fact fence them off so there is no vehicle access under the lines, or you could put a watcher out there to say, 'I know that I'm going to exceed clearances but I'm putting in an alternative management strategy to make sure that we don't get into strife' - but clearly there are limitations to those alternative options.

**Mr BOOTH** - What percentage of -

**Mr GUTWEIN** - Jump ahead, for goodness' sake, Brian, cut him off; I want a go. He can't have 15 questions in a row.

**CHAIR** - No, it is coming back to you, Mr Gutwein.

**Mr BOOTH** - What are your line losses like on transmission?

**Mr BEVAN** - On average line loss is just under 5 per cent. It increases with temperature.

**Mr BOOTH** - What would it peak at?

**Mr BEVAN** - I do not think that the average would shift too much on the overall system.

**Mr GUTWEIN** - I wanted to come back to understanding the costs in the revenue determination. In regard to capital expenditure, hopefully we will break the back of some the work that needs to be done over the next five years and then there might be a flattening out. Maybe we will be so lucky, though, to get a 2 per cent growth in energy demand each year. What do you include in the operational expenses?

**Mr BEVAN** - That is basically all the operating costs for the business. The regulator, as I said, engages consultants to come into our business and assess our effectiveness and efficiency. They benchmark us against other like companies and ultimately make a determination. The regulator would say this is what I think an efficient operator should be able to run this business for, and that becomes our limit as set by the regulator. The challenge for us is then to either meet or exceed it.

**Mr GUTWEIN** - What are the elements to that? For example, you have taken on extra debt. I am presuming they benchmark companies like yours and there is a ratio used as the industry

standard in regard to debt. Do they use a benchmark in arriving at a determination or do they look at your current debt levels and work off those? How do they do it?

**Mr BEVAN** - The debt levels are not taken into account in the regulator's determination of efficient costs of running the business. What they refer to are the controllable costs. Frankly, the balance sheet is an issue for the shareholder, and if the shareholder chooses to run a balance sheet that is heavily geared one way or the other then that is the shareholders' call. The regulator is not going to make a judgment. The regulator assumes a benchmark 60 per cent gearing ratio based on the regulatory value of the assets, which as I indicated earlier is slightly different to the statutory value of the asset. If the shareholders chose to gear us up or leave us very lightly geared then it does not impact on the regulator's allowance for operational expenditure.

**Mr GUTWEIN** - In the operational expense allowance that you get is a portion of that one of the elements to cover off on interest? Do they expect it? How do they factor that in?

**Mr CHALLEN** - They assess a regulated asset base. It is a lump of what assets you need to run the business. They apply a standard balance sheet structure to it - so 60-40 gearing. That gives you a capital component. You then apply a weighted average cost of capital to that; that produces a dollar revenue number; they add depreciation and operating expenses to that and that is your revenue allowance.

**Mr GREEN** - In other words you can't blame us.

*Laughter.*

**Mr GUTWEIN** - I am trying to get an understanding of what is a very complex process.

**Mr CHALLEN** - The important point is that the decision the shareholder makes about the gearing of the business is the shareholder's business and it has no impact on the regulator's determination in terms of what revenue Transend is allowed to collect.

**Mr GUTWEIN** - The fact that the shareholder increases your debt and your interest costs, thereby reducing your returns to government, is a decision of the shareholder's?

**Mr CHALLEN** - Exactly, yes.

**Mr GUTWEIN** - So the fact that you paid less -

**Mr CHALLEN** - The regulator is not interested.

**Mr BOOTH** - However, the regulator is not going to stand by and let the business go bankrupt by not allowing a price determination to enable it to survive.

**Mr CHALLEN** - It is an interesting point. I think the regulator in fact would stand outside that and say that decisions the shareholder makes are the shareholder's business, and trust that between the board of Transend and the shareholder there would be a debate to ensure that the business would not be left in a rocky position. I do not think the regulator would enter into that debate; they would not see it as their affair.

**Mr GUTWEIN** - So is part of the operational expenses that you submit to the regulator the employee costs? How many employees does Transend have, by the way?

**Mr BEVAN** - About 270.

**Mr GUTWEIN** - Is that in the annual report anywhere?

**Mr BEVAN** - It should be. One of the best pages in our annual report is actually the inside back cover because they are the people who deliver the result for the business.

**Mr CHALLEN** - We had 285 on 30 June.

**Mr GUTWEIN** - Can you give me the numbers then for the last four years?

**Mr CHALLEN** - So 2009-10 was 285; 30 June 2009, 277; 2008, 254; 2007, 184; 2006, 175. Of course in that period we took over the communications business.

**Mr BEVAN** - We acquired the communications business from Hydro Tasmania in November 2008.

**Mr GUTWEIN** - So how many staff would have -

**Mr OXLEY** - Thirty-two, I think.

**Mr GUTWEIN** - So that would have been on top of the base of 184 in 2007.

**Mr BOOTH** - You did not put in an offer for Aurora's broadband over powerlines project?

**Mr BEVAN** - No, but we are assisting with the electricity supply services to NBN and to Aurora. We see that as a potential growth opportunity. The communications acquisition has been an excellent result for Transend.

**Mr GUTWEIN** - In fact it is interesting for an energy business to have a subsidiary company that is actually making some money. It is good to see.

**Mr BEVAN** - To come back to Mr Booth's point, the network business of the future, in my view, is the traditional poles and wires overlaid with smart IT connected by smart communications. As part of that growth in numbers, in 2006 we took the decision to insource our IT, because it was previously outsourced. In 2008 we purchased the communications business. Part of that growth has been the result of our insourcing some activities that were previously outsourced, so increasing internal staff numbers does not necessarily translate to an increase in operating expenditure. In some cases it has meant a reduction in operating expenses, and also an increase in service to customers. One of the areas, for example, that we decided to insource was our own protection control - that is primarily the secondary assets that sit underneath the primary assets - because that was one of the worst-performing areas of the business. We were not happy with some of the contract services we were getting and we made the decision to bring it in-house.

**Mr GUTWEIN** - So when you say 'protection control', what do you mean by that?

**Mr BEVAN** - If you have a transmission line, for example, you have relays and boxes of tricks sitting in the substation and looking at what is happening on the transmission lines, sending signals to circuit-breakers, for example, if the current is too high. We refer to them as secondary assets, as opposed to the primary assets - poles, wires and transformers - the grey boxes that you see. The secondary control and communications tend to be assets that are in the substation control room. It is an absolutely critical part of our business. Indeed some of the system disturbances that we had that you were referring to earlier, Mr Booth, were related to asset issues associated with our secondary assets, not so much the primary assets in which we have significantly reinvested over the last decade.

**Mr GUTWEIN** - In a Transend substation, where you have Aurora's distribution network connected to it, who looks after the circuit-breakers?

**Mr BEVAN** - We do. Aurora owns the cables on the output side. An analogy is the little switchboard on your house. We own the switchboard. The cables that come out of the bottom of your switchboard to go to the power and light circuits are owned by Aurora.

**Mr GREEN** - Only in Mr Gutwein's case it is houses plural.

**Mr GUTWEIN** - You have been doing some reading.

*Laughter.*

**Mr GREEN** - It was in the paper. He came off a bad second to Brooksy in the rich list.

**Mr GUTWEIN** - In the case of a breakdown in the Aurora distribution network, what happens in regard to getting access to those circuit-breakers in a Transend substation? How is that managed and what happens?

[2.30 p.m.]

**Mr BEVAN** - As I said, what we refer to as the feeder circuit-breakers are assets that we own in our substations. Almost without exception they are operated remotely from our control centre in Hobart and so our operators would be dealing with the Aurora operators in terms of switching at their request. If they want to switch them off to shuffle load around on the feeders then we have very close working relationships with Aurora Distribution in that regard. To some extent who owns the assets is a second-order issue. If they were all owned by Transend or if they were all owned by Aurora the operating procedures frankly would not change.

**Mr GUTWEIN** - Is that an efficient way of doing it though? The reason I ask is that it has been put to me that in the case of where Aurora has a problem in part of its system it has to contact Transend to switch that particular section off or to reroute and what not, and the situation that was put to me was that if Transend is dealing with something - if the operator is dealing with another major issue for example - then you are almost waiting in line to have that done. Is that a realistic problem or not?

**Mr BEVAN** - I do not think waiting in line is a realistic scenario. As I said, regardless of ownership of the assets the same operating procedures would occur. We run a 24/7 control room with two operators on at all times and clearly if there was a problem on the distribution system it would be dealt with immediately. Being a control room operator is a bit like being an A380 pilot.



I think it is 99 per cent sheer boredom and 1 per cent sheer terror and sometimes it gets pretty busy, but that is what they are trained to do.

**Mr GUTWEIN** - They are a bit more reliable than the A380 aren't they - or not?

*Laughter.*

**Mr BEVAN** - We have not had any engines fall off yet.

**Mr BOOTH** - With regard to transmission upgrades, Cambridge I think was done a few years ago now to take into account the big-box development. Was that a Transend obligation or was that Aurora?

**Mr BEVAN** - I think the substation you were referring to there was actually a substation built by Aurora but we are in fact putting a transmission substation at Mornington which will strengthen the supply too. At the moment the whole of the eastern shore, from a transmission perspective, is supplied out of Lindisfarne substation. We then reticulate out 33 000 volts to a number of zoned substations for Aurora. One is at Bellerive, near the Oceana Health and Fitness gym at Mornington and we are building another 110 kV injection point teeing off the Lindisfarne to Rokeby transmission line at Mornington which will give us the capability for much greater supply into Aurora's system. They are looking at putting some zoned substations in and around the eastern shore over the next few years but that is something you could talk to Aurora about.

**Mr BOOTH** - From memory there was a figure of something like \$18 million or \$19 million for putting the power out to Cambridge for the big-box development -

**Mr BEVAN** - They were Aurora numbers in terms of their sub-transmission and distribution system.

**Mr BOOTH** - So you would obviously have had to provide sufficient transmission capacity to get it to there?

**Mr BEVAN** - Yes. It is a bit like with the operation where we work very closely with Aurora for network system planning and augmentations. Again we work very closely with Aurora and to some extent it does not matter what the badge is on the shirt, we are network planning from a transmission and distribution perspective and we will do whatever brings the best outcome for the benefit of customers.

A very good example of that is a few years ago we were proposing to put a transmission substation in West Hobart and we sat down with Aurora and redid the numbers and said, 'Well it is actually better that we do it as a distribution upgrade'. Aurora did it and we didn't and the customers benefited because it was a lower-cost solution. So we are not just trying to build assets with Transend badges on them, we will do what is best for the customers.

**Mr BOOTH** - But getting back to the Cambridge situation, that obviously required Transend to do some planning, some upgrade or whatever -

**Mr BEVAN** - That is right.

**Mr BOOTH** - I understand that development did not go ahead in the end, at least the big-box component of it. How much less is the electricity demand that your assets are carrying to that site than what was predicted at this point in time?

**Mr BEVAN** - I cannot comment specifically on what Aurora were doing for the big-box development but what I can say is that the timetable for us completing the Mornington project is that we want it in by winter 2012, otherwise we are going to have difficulty in keeping the lights on. I don't believe from Transend's perspective that the timetable of investment has changed at all as a consequence of the fact that one big-box development does not go ahead.

**Mr BOOTH** - So whether that goes ahead or not, the upgrade is beneficial because of the issues in terms of -

**Mr BEVAN** - And we certainly wouldn't have deferred what we are doing because of the loss of one big-box development. A big-box development, while it is big, the electricity demand is not all that high. It is not like an industrial plant where you have heavy demand; it is really light and power and air conditioning.

**Mr BOOTH** - I was just looking to see if the expectations of demand, and therefore the requirements - you have invested in infrastructure to provide capacity for that demand which hasn't occurred to the level that was anticipated.

**Mr BEVAN** - If you look at our five-year capital program, the crystal ball gets a little bit fuzzier the further out you go. In consultation with Aurora we had a proposal for a new substation in the Wynyard area in about 2013-14 but the latest advice from Aurora is that it looks as though the need for that might be slowing down a bit, so we will take that into account. The forward capital program is always under review and, if need be, we will either defer or accelerate projects depending on what customers require.

**Ms WHITE** - Can I ask about the wind mapping that Transend has done and whether you could explain how this might be useful?

**Mr BEVAN** - That is a very good question. You might say, 'Why is a transmission business interested in where the wind blows?', but this is all about our being ready to serve our prospective customers. It is probably fair to say that to some extent we have been a bit reactive. People have come to us and said, 'I think I might be looking at putting a wind farm here' and our response would have been, 'Thanks for the inquiry. Give us a bit of time and money and we'll have a look at it'. We want to get into the situation where we can be more proactive and if you were to come along and say, 'I'm thinking of putting a wind farm at Dover', we could say, 'Fantastic. We've already thought about it, here are the issues you need to consider'. We commissioned a wind atlas on a 4.5 kilometre by 4.5 kilometre grid right across the State based on Bureau of Meteorology data that said, 'This is the wind intensity across the various areas of the State', and that gives us a pretty good indication as to where wind is and where wind generators are likely to be interested and that then directs our studies if somebody wants to put a wind farm at, say, Dover. For example, how good is our transmission system? What would we need to do to upgrade it? How much would it cost? Who would pay for it? How long is it going to take?

**Mr BOOTH** - Is that the one the Greeny used for Woolnorth?

**Mr BEVAN** - This work has only been completed in the last 12 months, so it was well before Woolnorth.

**Mr BOOTH** - Probably a good thing because they were way out in their figures.

**Mr BEVAN** - We are certainly not setting ourselves up as wind experts but if it is indicative for us absolutely we would expect any wind generator to be doing their own analysis in terms of the viability of their project.

**Ms WHITE** - But you have done it to understand the capacity of the infrastructure you currently have and what you require to get it to a standard for them to utilise.

**Mr BEVAN** - That is right. As part of the grid vision that I mentioned, it is about what if there was a lot of wind investment opportunities in Tasmania that might be driven by a price on carbon, for example. Where is it likely to eventuate, what is the spare capacity on our substations or our transmission system? It may well be that from a development point of view you can get a better solution by developing here rather than there because your network connection costs will be lower.

**Ms WHITE** - Have you had anyone approach you to ask for information like that yet?

**Mr BEVAN** - It has created quite a lot of interest.

**Mr GUTWEIN** - Is there more detail on that than what is available? I think the Federal Department of Environment has a wind map currently.

**Mr BEVAN** - On our website we have published a short form of that document and we are very happy to share that information with anyone who is interested.

**Mr GUTWEIN** - So that drills down to a lower level than what is available at the Federal level?

**Mr BEVAN** - I do not know the level of the Federal study but ours is a 4.5 kilometre by 4.5 kilometre grid.

**Mr BOOTH** - Do you have actual instruments measuring your own data collection or are you relying on the Bureau of Meteorology?

**Mr BEVAN** - This was done by BOM analysis.

**Mr BOOTH** - Did they use real-time data?

**Mr BEVAN** - I don't think they are out there measuring on-site, though they may do that for validation, but they are analysing wind speeds based on the satellite and other data that they have access to.

**Mr GUTWEIN** - Which is similar to what is on the Federal Department of the Environment website. Can I bring you back to employees for a moment? I think you have had a very solid year. I do not think there is any argument at all about that. Obviously people are paying for it but you have had a solid year financially. I think it is a reasonable point to make.

**Mr GREEN** - It's a surety.

**Mr GUTWEIN** - It is a reasonable point to make. The defined benefits superannuation plan: looking at your accounts, that was one of the areas that I thought deserved some further inspection. It appears that the unfunded component of that has grown quite rapidly and I am wondering whether or not -

**Mr BEVAN** - Many of the communications business staff who transferred to Transend from Hydro are defined benefits scheme members, so there has been an increase in the number of staff. There have also been some changes, as I understand it, in the actuarial assessment process and the rates applied which has caused an increase, regardless of the increase of numbers.

**Mr GUTWEIN** - There was a discount across the board in the discount rate, wasn't there, which affected all balances?

**Mr BEVAN** - The chairman may be better qualified to comment on the ins and outs of that than I am. But we are really a price taker, quite frankly, in terms of RBF defined benefits scheme, but it is fully funded. We do not have unfunded.

**Mr GUTWEIN** - That was the question that I had because it states actual assets and then the deficit of around \$44 million and I just wanted to get clarification on that. The defined benefits obligation at the end of the financial year was \$56.8 million, actual assets at the financial year-end were around \$12 million and the unfunded component was \$44 million. I was wondering if you could explain what is happening there? In fact, it goes on with a little chart here, with the funded status, and you have \$44 million unfunded -

**Mr BEVAN** - As I understand it, it is a liability sitting on our balance sheet, so it is fully accounted for.

**Mr GUTWEIN** - If I could, Minister, address this to the chairman then, who obviously has a lot of experience in this area. The State Government have obviously taken steps with the SPA to look at what it can do to fund the unfunded obligation in regard to the RBF at a State government level. Has there been any attempt to look at what could be done within this company because it appears to me, using broad numbers, that we have around a \$4 billion unfunded RBF amount at a State government level and then we have the SPA which offsets that and we are planning to pay the whole thing out in 2035? The SPA at about \$1.5 billion is roughly 35 to 40 per cent of the total unfunded component, yet here we have only a funding balance of \$12 million to a liability of \$56 million. Just looking at the SPA and the way that the Government and Treasury have been managing the RBF, they, even with a significantly unfunded portion at the moment, are planning to nail it by 2035. Here, the unfunded portion in percentage terms seems to be dramatically larger and I am wondering when this is going to become a problem for the company or how that is going to be managed.

**Mr CHALLEN** - In Transend's case, the total liability has two components - the funded component which sits with the RBF board, and what is described here as an unfunded component, which sits on Transend's own balance sheet. So offsetting that in a sense of which it is funded, as Richard was saying, is that Transend has a whole lot of assets, some of which are funding our superannuation liability. So meeting superannuation obligations -

**Mr GUTWEIN** - When you say a whole lot of assets -

**Mr CHALLEN** - Our transmission lines.

**Mr GUTWEIN** - But you are not going to sell those to fund your -

**Mr CHALLEN** - But it becomes a liquidity issue.

**Mr GUTWEIN** - It does.

[2.45 p.m.]

**Mr CHALLEN** - The only issue for Transend is, 'Do we have the liquidity to meet the cash requirements of our superannuation liabilities as and when they fall due?', and that is a sort of medium to longer term liquidity planning issue for Transend.

**Mr GUTWEIN** - Has that been done?

**Mr CHALLEN** - To be honest, having been on the board for only two days, I am not sure.

**Mr GUTWEIN** - That is an unfair question on that basis but it would appear to me that, with the profile we see with the workforce we have, there will come a time when there will be a five- to 10-year window where we will see a number of exits from these sorts of schemes and there will be a need to meet those obligations. I am just wondering whether it has been planned for.

**Mr CHALLEN** - It will be a liquidity planning issue to Transend but it is probably not a real live issue for another eight or 10 years yet because we have not got to the point where that big lump of retirements comes along.

**Mr BEVAN** - You can see on page 43 it talks about the current liability and the non-current liability, which is an assessment in terms of what is likely to fall due in the current period or the next few periods.

**Mr CHALLEN** - Some companies do as a matter of policy cash back their superannuation liabilities. That is probably more important for a company that is unlikely to have a permanent existence, like Transend. So if you wanted to give your creditors as a group the confidence that in the event that your company was taken over by somebody else or wound up that there would be the capacity to meet the superannuation liabilities, you might make a policy decision to fully fund your superannuation. To the best of my knowledge, Forestry Tasmania is the only government-owned company that has made that policy decision, so they have been working towards fully funding in recent years. As far as I am aware, the others all have the same policy as Transend, which is to have the liability offset by assets that are working in the business and earning income and then to manage the liquidity requirements to make sure that we can meet our obligations as and when they fall due. The reality is Tasmania is going to be here forever, Transend will be here forever, so it is not necessary for us to cash back these liabilities.

**Mr GUTWEIN** - Oh no, and I was not expecting that you would have stated that would be what you were planning to do. I guess the question was more along the lines of there being a growing unfunded component there and whether or not that has been factored into future cashflow projections or whether it had been taken into account as to when, as you put it yourself, the big lump is going to hit.

**Mr CHALLEN** - As I say, it is a liquidity planning issue that would be taken into account in terms of Transend's ordinary cashflow forecasting. The managing director can comment if he wishes to but I would not imagine that this would have been an acute issue.

**Mr BEVAN** - It is not material in terms of the overall cashflows of the business.

**Mr BOOTH** - Robbins Island - just changing the subject slightly. They have problems getting power from their proposed wind farm and from a historical context I understand Hydro owns the line from Woolnorth to Smithton and deliberately so, presumably, to exclude the people from Robbins Island from being able to get onto that transmission line. So can you give us a rundown on whether you are involved in either taking over that line or building a parallel line or somehow connecting Robbins into the grid?

**Mr GREEN** - It is more a capacity issue than the transmission line with Aurora, supposedly.

**Mr BEVAN** - We have been dealing with Hammond Brothers on Robbins Island for a long time now. It is a matter of fact that the transmission line from Woolnorth to Smithton is owned by Hydro Tasmania. We actually operate and maintain it for them under our transmission licence. It was built to size for that particular transmission for that particular wind farm, so I do not know that it was a matter of being built to exclude other parties and it is not for me to make any judgment as to whether Hydro and Robbins Island are having any commercial discussions about access to what is effectively a private transmission line.

**Mr BOOTH** - The ordinary process would be that Transend would be responsible for obtaining the power from the point source of generation, wouldn't it?

**Mr BEVAN** - No, it is what is referred to as a contestable asset. We have a monopoly business for the main transmission system for what are referred to under the code as prescribed assets, where people do not really have a choice other than to use our service, but for a dedicated generator connection like that line that is really up to the generator. It is referred to as a contestable service.

**Mr GREEN** - What about Musselroe, Richard?

**Mr BEVAN** - Musselroe is slightly different in that from Norwood in Launceston out to Derby we own the transmission line and when we rebuilt that a few years ago we put some additional capacity into that line which is currently being funded by Hydro in anticipation of the Musselroe wind farm. The transmission line from the Musselroe wind farm to Derby is a proponent line. If they come to us and say, 'Transend, would you operate and maintain that line for us like you do the Woolnorth line?', we would be very happy to have that discussion with them because that is our core business.

**Mr BOOTH** - So the main line out to Derby services a number of other communities on the way.

**Mr BEVAN** - Scottsdale, Derby.

**Mr BOOTH** - Yes, and the additional capacity that was built in to service the Musselroe part you are saying Hydro is paying for that upgrade.

**Mr BEVAN** - Yes, as we speak.

**Mr GREEN** - We have an issue from Sheffield to Smithton with the capacity of our existing transmission lines.

**Mr BEVAN** - Yes, if there was significant additional capacity of wind generation in the north-west it is not just a matter of strengthening the system from Robbins Island to Smithton, it links back to Burnie and even back as far as Sheffield. The Smithton to Burnie to Sheffield assets are owned by us and that would be regarded as prescribed assets as part of the monopoly business and we need to upgrade them. There is an interesting discussion about if the cause of the need for upgrade is a generator what they should be contributing toward that. There was quite a furious national debate going on in this space at the moment around how network investment that is required to support especially remote renewable generation - and it is not just wind in Tasmania, it is things like -

**Mr GREEN** - If we want to get the 20 per cent then the Commonwealth has to think about infrastructure requirements to get to some of those remote areas.

**Mr BEVAN** - That's right. If you take hot rocks in outback South Australia it is 500 kilometres from anything that looks like a strong point on the network and roughly for transmission costs you could work on \$1 million per kilometre, so you've got half a billion dollars worth of costs before you even think about digging a hole in the ground to get thermal energy. What is being referred to as scale-efficient network extensions, SENEs - as if we needed another acronym but we've got one - is all about the process, how you apply the regulatory investment test, who should pay for it, whether customers should support some additional capacity in the short term that would then be subsequently funded by generators as they came on board to make sure -

**Mr BOOTH** - It is like the provision of a highway, isn't it?

**Mr BEVAN** - That's right. Transmission systems do not lend themselves neatly to small increments; you are building in big chunks, whereas things like wind farms you can do 3 megawatts, 3 megawatts, 3 megawatts. We are not going to build a transmission line in less than 50 megawatt chunks, probably even 100 megawatt chunks.

**Mr GUTWEIN** - What happens with the major industrial customers with their transmission charges? I am presuming that over time they are getting charged an increasing amount for transmission.

**Mr BEVAN** - They pay their proportion.

**Mr GUTWEIN** - They pay it on what basis?

**Mr BEVAN** - It links to the revenue determination process. The first step for us is to get a revenue determination which the external regulator determines - 'This is how much money you can earn'. At the same time we have to submit to the regulator a pricing framework which is then the mechanism by which recovery of that amount of money is allocated across the various customers. That pricing framework has to be approved by the regulator as well. We cannot just sit and make judgments about how much Comalco should pay, how much Nyrstar should pay and

how much Aurora should pay; it is subject to open process, regulatory review and regulatory endorsement. It is quite a complex pricing model and if you take a customer like Nyrstar, for example, they are paying some proportion of the general shared system and they might be paying for some specific assets at Risdon that specifically serve their premises.

**Mr GUTWEIN** - Can I ask what sort of increases there have been? Does the increase that we were talking about earlier - the 21 per cent increase and then 8.3 per cent and 8.3 per cent - flow through to all customers on that basis?

**Mr BEVAN** - Not exactly, but by and large, yes. All customers have seen significant increases certainly in the last couple of years as a result of this regulatory determination. As I said earlier, we are critically aware of the impact we have on our customers, especially energy-intensive customers where delivered energy is a significant portion of their production costs.

**Mr BOOTH** - What about Newwood; was that line going down there a Transend responsibility?

**Mr BEVAN** - It is a Transend transmission line and substation but is virtually funded by the proponent.

**Mr BOOTH** - Do you get a proper rate of return on investment for that and what do you base that on?

**Mr BEVAN** - There are a number of ways that a customer can support a component like that. They can basically use cash upfront - give us the money and we will build it - or alternatively we will sign you up for a five, 10- or 20-year deal or whatever the case may be and we will recover the value of the assets over the life of that connection agreement, with appropriate bank guarantees in place on a diminishing basis so that we remain whole. The challenge for Transend is to make sure that we do not end up holding a stranded asset in the event that a customer disappears.

**Mr BOOTH** - A wise move, I would say.

*Laughter.*

**Mr GREEN** - I was about to say what if another customer comes along, what happens to the cost then?

**Mr BEVAN** - There are some opportunities; you can renegotiate a reassignment. Again, we are a very open and transparent business.

**Mr BOOTH** - I think that was about a \$25 million upgrade, from memory, to put that in.

**Mr BEVAN** - Something in that order but I cannot remember the exact amount.

**Mr BOOTH** - So you would be getting about a \$2 million return for the interest and then some capital depreciation?



**Mr BEVAN** - Yes. I think the weighted average cost of capital on that project was something like 8.4 per cent so you can run the numbers - \$20 million at 8 per cent would be \$1.6 million a year.

**Mr BOOTH** - But you recognise also in terms of the fee that you charge it is not just interest but also depreciation on the line?

**Mr BEVAN** - Absolutely, and to some extent the equation that Don was referring to in terms of asset value, depreciated optimised replacement cost times weighted average cost to capital plus O&M, plus depreciation, plus CPI factor - you run the numbers and that is what you would expect as a return on your asset.

**Mr CHALLEN** - Customers all get treated equally.

**Mr BOOTH** - It is a fairly big stranded asset at the moment in the sense that it is not generating a return for the Hydro -

**Mr GUTWEIN** - They do not have any choice now, do they, really.

**Mr BOOTH** - With the Newwood line, for example, you would ordinarily be generating returns out of that through its use. Whether it was carrying current or not that is your return.

**Mr BEVAN** - We generate return based on the value of the asset, not the value of the product that goes through it. To a large extent we are benign to whether the thing is in service and run flat out or not.

**Mr BOOTH** - It does not worry you whether someone uses it or not, you actually pay for the cost of the investment itself.

**Mr BEVAN** - There might be some marginal cost differences in terms of frequency of maintenance if it was running very heavily but with electrical assets, by and large, that is probably immaterial.

**Mr BOOTH** - Do you have capacity to borrow to fund expansions, maintenance or upgrades of lines? I am not suggesting that it would need to be unlimited but is there anything foreseeable where there would be a requirement to upgrade, maintain or put in new lines but you could not afford to do so?

**Mr BEVAN** - From what we can see in the future at the moment, no. We are set a borrowing limit by Tascorp which is derived around 60 per cent, I think, of the regulated asset base, and at the moment we are within that limit. We got pretty close to it a couple of years ago but the revaluation of the asset base effectively gave us a bit more headroom.

**Mr BOOTH** - Do you have a prioritisation system where you might identify your capital expenditure based on some sort of needs analysis?

**Mr BEVAN** - We have never been in a situation where we have been capital constrained as a consequence of access to funds, but we have certainly been in the situation where we have been capital constrained in terms of what the regulator says we should be able to run the business for. So there is prioritisation happening all the time in terms of where we should be investing our

money for future opportunities. A good example of the latter is that we have fibre optics on some of our transmission lines, what we refer to as OPGW, optical fibre ground wire. Any new transmission line that we are putting up as a matter of course has OPGW on it, and as a consequence of that where we have developed that system map it is a bit of a patchwork quilt at the moment, and there are some spots on existing transmission lines where we are looking at going and basically filling in the gaps so that we have a continuous fibre network across the backbone of the system. So to some extent, while there is an operational need for that in that it improves our communication and improves the lightning shielding for the transmission line, it is also effectively proactive in terms of if we have a continuous communication network it not only serves our own business but it gives us the opportunity to sell services to NBN, for example, for wholesale backhaul on the communications network that they might have. For example, we are talking with Telstra at the moment because we have actually got fibre into the west coast. The west coast is a difficult place to serve from a communications perspective and Telstra is very interested in talking to us about how we might be able to provide some backhaul services for their wholesale communications into Queenstown.

**The committee suspended from 3.01 p.m. to 3.16 p.m.**

**Mr GUTWEIN** - What challenges does wind provide for the network? What is the potential for wind?

**Mr BEVAN** - Any variable generation does provide some challenges for operating a power system, because when you plug your computer in you like 240 volts and you want 50 hertz. Wind generation, by its very nature, is variable, as is solar and other forms of generation. To answer your question about how much wind you can connect to the Tasmanian power system, there is not one number that is the answer because it depends on a number of factors. It depends on the load on the system at the time. For example, the lowest load on the Tasmanian power system is in summer overnight, when it can be just under 1 000 megawatts. If it is winter and Basslink is exporting, we can be up to 2 500 megawatts of load on the system. The amount of wind or variable generation you can tolerate on the system is generally described as a percentage of the overall system load, referred to as 'penetration'. So if you had 30 per cent penetration, 30 per cent of your generation might be coming from variable generation.

**Mr GUTWEIN** - At the moment it is about 4 per cent; is that right?

**Mr BEVAN** - That is energy. There is a big difference between energy and power on the system - which is megawatts. The issue for power system management is generally around about the penetration at the particular point in time, so it is a power issue not an energy issue, which is a power-over-time issue. The Irish are in fact leading the world in terms of percentage of penetration of wind on systems. They have a target of 40 per cent as being the maximum that you could have on the system, and they are looking at whether they can get to 50 per cent. So at the moment if you look at Tasmania's generation, if the low was 1 000 megawatts, to keep the maths simple, and if you had 150 megawatts of wind generating - dispatching - into the system, then that is 15 per cent penetration in the system.

**Mr GUTWEIN** - So what do you think the system would be comfortable with, and when does the capacity of the system provide a constraint? Does Basslink provide some further opportunities in regard to export if there is more wind on the system?

**Mr BEVAN** - Basslink presents an opportunity. On export, Basslink just looks like a load to the Tasmanian power system. On import it looks like an asynchronous generator. Taking the export scenario, if the load you're serving on the system is bigger, if Basslink were on full export, then Hydro would have lots of plant running to support that export. The size of the load is larger and therefore the amount of wind generation that you could have dispatching in the system would be commensurately larger.

Basslink is a high-voltage DC link, referred to as an asynchronous link, so it is not electrically synchronous to the system. That presents some additional challenges where you could have some import coming over Basslink, and so Basslink looks like a generator. You could have a lot of variable generation on the system through wind and not much other plant with inertia, which is an important part of keeping the system going on the island. They then become some of the technical parameters. Transend has some significant issues in understanding those because our job is to present to the national market operator a system that you can operate, and here are the constraints that you may need to be aware of. For example, if you had a significant amount of wind dispatching into the system then you may have to back-off the import of Basslink, or vice versa. This is something that the Irish have been dealing with quite intensively over the last couple of years.

**Mr GUTWEIN** - I cannot even picture where they have their wind farms over there.

**Mr BEVAN** - There is a lot of wind in Ireland and they are currently putting in another DC link between Ireland and England. In fact one of our system analysis engineers was recently in Ireland and spent a week talking to their people about some of the things they have been doing, because they are about two years ahead of us in terms of amount of wind and managing it on the system. Their power system is slightly larger than ours electrically but there are a lot of similar characteristics. It is pretty spindly and they have some remote wind generation hooking into it as well.

**Mr GUTWEIN** - The previous CEO of Hydro had spoken on a number of occasions about the potential to build our wind generation base to over 1 000 megawatts. We currently have 160 at Woolnorth, is that right?

**Mr BEVAN** - Roughly.

**Mr GUTWEIN** - Then we have another 140 to 150 coming on at Musselroe, if that comes off, and there is a proposal for Cattle Hill -

**Mr BEVAN** - Which is potentially over 200 - 240.

**Mr GUTWEIN** - So a couple of hundred there, so that gets us up around 500.

**Mr BEVAN** - Bearing in mind that is installed capacity. There is a difference and there are three numbers you need to be aware of. One is the wind energy available. The second number is how much wind you install. The third number is how much is being dispatched, so if the wind is blowing or not or the power system can tolerate it. Certainly the days of being able to put up a wind farm and expect to dispatch just because the wind is blowing are rapidly coming to an end. In Ireland they now have the ability to say to wind farmers, 'Sorry, I know the wind is blowing but

you are going to have to shut down because the system conditions are such that we cannot tolerate that amount of variable generation on the system'.

**Mr GREEN** - That is why we need another cable.

**Mr GUTWEIN** - So with wind generation, if the rating is 100 megawatts, what would you normally expect that to be generating?

**Mr BEVAN** - Again, there are two issues. If all the plant was in serviceable condition and it was blowing very hard, then you could have 100 megawatts. But on average over a year the levels being achieved are probably between 30 and 35 per cent, which is regarded as a good wind resource. So if you had 100 megawatts installed capacity, on average over a period of time you might be getting 35 megawatts, but at peak times you might be getting 100 megawatts. That is the difference between power and energy.

**Mr GUTWEIN** - When does there become an issue with the grid? If Musselroe comes on, and Cattle Hill, when do we get to a point where the argument for a second Basslink becomes -

**Mr BEVAN** - If I can put the second Basslink to the side for the moment, regardless of how many connections there are, a second Basslink will not help. The power system security issues are on-island in Tasmania. A second link potentially gives you greater capacity to export but that does not necessarily mean you can dispatch it into the Tasmanian power system to start with.

**Mr GUTWEIN** - So if there were a second Basslink, what export capacity would it give us if it were the same size?

**Mr BEVAN** - Currently Basslink is rated nominally at 480 megawatts, and you can get up to 600.

**Mr BOOTH** - But then you have to cool it down for about six hours, don't you?

**Mr BEVAN** - There are some technical issues associated with it.

**Mr GUTWEIN** - So even if there was a second Basslink service, what then becomes of the problem with dispatching the energy?

**Mr BEVAN** - Sitting in behind the megawatts delivered there are a number of other aspects of power system management. I know there was some discussion yesterday about frequency control ancillary services. You need to have enough inertia on the system for the system to be able to respond if an event occurs, so we have to be able to support the voltage and the frequency. It is not just a matter of saying, 'I need to build a bigger pipe to get megawatts being transferred'. There is a significant number of power system issues that need to be well understood and that is part of Transend's job, to understand the consequences of connecting new plant in whatever shape or form it might be to the power system. It is a bit like when you start to drain a swamp; the rocks start to appear. The harder you run the power system and the more variable generation you have on the power system then you have things such as frequency control, voltage control, fault level. If you have a fault on the system you need to have enough grunt in the system to manage it. Inertia is another one; there currently isn't a market for inertia. It is something that is effectively acquired as a bit of a free kick for the fact that most generating plant to date has been heavy rotating machinery and inertia is a function of it. It has also become an issue in the national

market; do you need to have a market for inertia? It means you are paying someone to deliver inertia into the system, whether it is the owner of a hydro generator, for example, or it might be someone who says, 'I'm going to go and install a great big flywheel on the basis that I can sell inertia as a product into the market because it's required to keep the power system operating in a secure operating state'.

**Mr BOOTH** - But you have a problem, too, haven't you, with the cables, that they are a major component of the percentage of the total generating capacity of the island and it could be disconnected and there is no way you would have the capacity to get the voltage and frequency control.

**Mr BEVAN** - That's right. As I explained earlier, the system operator, AEMO, will not run the system in an insecure state. If they have to curtail, constrain on or constrain off particular plant, or indeed customers, to maintain a secure system, they will. Under times of severe system stress AEMO may say to us, for example, 'We've got a system security issue; you need to chop off 200 megawatts of load'. It's a bit like cutting off the arms and legs to save the torso of the system.

**Mr GUTWEIN** - Do you make that decision? Who is responsible in the Tasmanian system for chopping off load?

**Mr BEVAN** - We work with Aurora in determining what is referred to as the load-shedding schedule. AEMO, as the system operator, doesn't particularly care where it comes from; they will just say to us, 'We need you to shed 200 megawatts of load in northern Tasmania'. All they are expecting is that it is going to happen, so it is up to us to make sure that it happens. There are a lot of pre-agreed discussions about what load, who would go off, under what rotations. Another hat I wear as the chief executive of Transend is the responsible officer for electrical emergencies in Tasmania, so if there were such a situation I basically take my Transend CEO hat off and put my responsible officer hat on to manage that.

**Mr GUTWEIN** - The current management on a day-to-day basis of Basslink -

**Mr BEVAN** - It's not ours.

**Mr GUTWEIN** - No, I understand that. I found it to be quite interesting on the basis that you're the transmission company and that is the single largest piece of transmission equipment we have.

[3.30 p.m.]

**Mr BEVAN** - While it is a transmission cable, it is effectively a merchant link. It is not a regulated asset like the Waddamana to Lindisfarne transmission line. While technically it is a transmission cable, commercially it is actually a very different beast. It is privately owned by CitySpring Infrastructure and they have contractual arrangements with Hydro Tasmania in relation to how that link operates.

**Mr BOOTH** - In terms of systems security have you had a look at high-voltage DC transmission lines to replace the overhead?

**Mr BEVAN** - There has been a lot of discussion about HVDC. In fact with UHVDC - ultra high-voltage DC - the Chinese are currently working with 1 000 KVDC links and there is a worldwide development ring around Europe and the Mediterranean with UHVDC. The quantities

and distances that we are shifting in Tasmania are unlikely to make HVDC on-island viable. Clearly with Basslink undersea you have no choice because if you tried to run an underground cable at AC you lose a lot of the energy charging and discharging the cable 50 cycles a second; it's like a big capacitor. So I do not think it is likely we would see HVDC on the island in Tasmania. If you take the existing Basslink, for example, it is not just HVDC under Bass Strait; it goes for another 60 kilometres overhead DC to Loy Yang, so depending on where you wished to put the landing point of the DC system in Tasmania you may have some DC overhead but it is unlikely to be used for distributing power around the State. A bit like on the South Island of New Zealand, the DC point is actually well down the South Island from the Cook Strait cables, except it does not come to shore, it goes straight to AC automatically.

**Mr BOOTH** - From what you are saying is it ruled out on cost to replace some of the overhead transmission with high-voltage DC underground because it would be uneconomic?

**Mr BEVAN** - Undergrounding is still relatively expensive depending on the circumstances, how urbanised it is, and whether you can get through with an overhead transmission line. The cost of the HVDC is the converter stations. A converter station like George Town is probably \$100 million. We have been doing some preliminary work on where a second link might hook into Tasmania and Victoria. What sort of capacity? How much might it cost? You are really talking \$100 million to convert the station before you even stick a bit of cable between the two.

**Mr BOOTH** - Can you tell us a bit about the communication system you bought off Hydro? Is that all strung cable or does that operate using the carrier wave?

**Mr BEVAN** - No, it is primarily a line-of-sight microwave. Communication is absolutely critical to our business. We always had a very strong interest in Hydro's communication system. As their single biggest external customer we are in fact the only transmission business in the country that did not own its own communication system. By acquiring that business it has given us the opportunity now to develop the microwave system and our own fibre system in a complementary manner as opposed to how they may have been developed in a competitive manner. So I think it is a very sensible solution for us to take over.

**Mr BOOTH** - I wanted to be sure there was no relationship to using the current transmission wires to send a signal across as in the broadband over powerlines and all that?

**Mr BEVAN** - That is PLC technology, powerline carriage technology, and is very old.

**Mr BOOTH** - Yes, I know.

**Mr BEVAN** - We are in fact taking out some PLC communication control systems on lines that were built 40 and 50 years ago - like a bird cage sitting on top -

**Mr BOOTH** - Bryan, you had better listen to this.

**Mr GREEN** - I had a question on it the other day as a matter of fact.

**Mr BOOTH** - Oh, good.

**Mr BEVAN** - The communications business is going very well; the transition went very well, the staff were very keen to come to Transend. One of the conditions of precedent was that we got 25 of the staff complement of 32 agree to transfer and we got 32 out of 32.

**Mr GUTWEIN** - That ran at a profit when you brought it over. Can you give us just a little bit more detail on the size of that business, its revenue stream?

**Mr BEVAN** - It is currently ring-fenced within Transend, it is not a subsidiary, and I think Paul is digging out some numbers.

**Mr BOOTH** - Is your customer base only yourself?

**Mr BEVAN** - No, ourselves, Hydro, Aurora, and we do have some other external customers like Air Services Australia, airports, Roaring 40s.

**Mr GUTWEIN** - And other opportunities for customers?

**Mr BEVAN** - I believe there are. I think the NBN is an opportunity, not in terms of setting up in competition because one of the key things for any communication business is to have redundancy so that if something goes wrong with one system you can back it up with another.

**Mr BOOTH** - It is a bit like having a backbench in parliament, do you reckon?

**Mr BEVAN** - I refer to it as backhaul services.

**Mr GREEN** - Wholesale backhaul.

**Mr BEVAN** - We certainly do not anticipate that we are going to get into the last mile of the retail communications business, that is just not the space that we are in. It is a wholesale transfer capability issue for us, the very same as what we are doing with electricity transmission. Communication services for the year 30 June 2010, external revenue, \$8.1 million contribution to the company profit of \$1.9 million. It has been a very good -

**Mr BOOTH** - What did it cost you for the business in the first place?

**Mr BEVAN** - I think we paid nominally around \$15 million. We have already touched on RBF liabilities because the staff were transferred to us along with RBF liabilities so I think the net number was probably about \$19.5 million or \$20 million or something like that if you take all those things into account.

**Mr BOOTH** - Did that earning include internal charging for your own communications there or is that generated only by externals?

**Mr BEVAN** - No, as I said, it is a ring-fenced business within Transend and so Transend transmission are actually paying into the communications services of this business at the moment.

**Mr BOOTH** - You mentioned that you either have or will have an optic-fibre cable into Queenstown?

**Mr BEVAN** - It currently goes from Sheffield to Farrell which is just near Tullah. We are currently looking at extending it from Farrell to Queenstown to the John Butters Power Station which is owned by Hydro Tasmania and that is the power station down on the Kingston. We currently have microwave into there but we are looking to enhance the services and that is the area that Telstra is keen to discuss with us about what commercial opportunities we might have to provide them with some backhaul services.

**Mr BOOTH** - Is that a strung cable on your towers?

**Mr BEVAN** - It would be.

**Mr BOOTH** - So not underground anywhere, it will just be using your aerial route basically.

**Mr BEVAN** - That is right. I suppose it is a function of history to some extent that many of the older transmission lines in Tasmania do not have continuous earth wires and that is the wire that is right at the top of the tower. The prime purpose of the earth wire is to provide a lightning shield so that if you are in a lightning storm the lightning hits the earth wire and not the current-carrying conductors. We can enhance our service levels by reducing the possibility of outage because of lightning strike by stringing the earth wires and the marginal cost of embedding fibres in the earth wires is very small. As I said before, any new lines that we are putting up as a matter of course would have a continuous earth wire including fibre optics and that is why if you look at the map of Tasmania as to where fibre optics exist on our transmission system at the moment, it is a bit of a patchwork quilt.

**Mr BOOTH** - Is it a composite cable or is it separate wires like a separate earth and a separate optic fibre cable?

**Mr BEVAN** - No. It is basically a single wire and the fibres are actually imbedded in the central core of the -

**Mr BOOTH** - And the composite can take a lightning strike and dispatch it to earth without a problem?

**Mr BEVAN** - Yes. It is surrounded by a number of strands of aluminium steel wires.

**Mr GUTWEIN** - On a slightly different tack, yesterday when we were chatting with Hydro we were just trying to understand -

**Mr GREEN** - System losses?

**Mr GUTWEIN** - Yes, what was transmitted across Basslink.

**Mr CHALLEN** - There was a variation.

**Mr GUTWEIN** - Yes, there was a variation. Looking at your annual report on page 6, the Tasmania plus export versus the Tasmania gigawatt hours, there was a 712 gigawatt hour difference and Hydro said that they exported 633 gigawatt hours. I am just wondering what the difference was.



**Mr BEVAN** - It depends on where you measure. Bear in mind that we do not care whose electrons they are.

**Mr GUTWEIN** - More money in the bank.

**Mr BEVAN** - That is actually measured at our George Town substation, measuring what energy is going into Basslink. Whether that is Hydro's energy, AETV's energy, Roaring 40s energy - we do not care. All we are doing is counting the electrons so I think that is why you will see that the numbers do not necessarily line up.

**Mr GUTWEIN** - Do I need to put all these on notice?

**CHAIR** - It would be helpful.

**Mr BOOTH** - While he is putting them on notice, can you tell us about your car fleet? Have you considered selling it off and leasing it back?

**Mr BEVAN** - We have, but we believe it is more efficient for us to own and operate them ourselves at this point in time.

**Mr BOOTH** - So you have analysed it and that is more efficient, cost-effective.

**Mr BEVAN** - That is right. We do not just buy the cheapest vehicles, we procure our fleet on a whole-of-life cost basis and that takes into account how fuel-efficient the vehicle is and what its resale value is. The difference in resale value of various brands is quite surprising and we have a very light vehicle fleet; we run three years on 100 000 kilometres, bearing in mind that most cars now have a 100 000 kilometre warranty on them.

**Mr BOOTH** - What sort of savings did you get when you modelled it against the lease-back option?

**Mr BEVAN** - I do not have those numbers to hand.

**Mr BOOTH** - Can you provide them for us?

**Mr BEVAN** - Yes.

**Mr BOOTH** - The minister is looking worried here because one of his other caps, Forestry, goes the other way.

**Mr GREEN** - Forestry went the other way. They were approached a company.

**Mr BEVAN** - I think it depends on the style of the fleet. I am aware that Forestry Tasmania have probably quite a different style of fleet to what we have. Ours is really a light vehicle fleet. We are not into heavy vehicles or road tankers or the sort of stuff that I would imagine Forestry would be using.

**Mr BOOTH** - I think Forestry is cutting off the limbs to save the essential organs, aren't they, with that?

**Mr GREEN** - Moving right along.

*Laughter.*

**Ms WHITE** - I have a question. Page 5 talks about the biannual international benchmarking study and it says that Transend is ranked quite highly. Could you expand on that? Do you know exactly where you are ranked? It also refers to your telecommunications, so could you talk about the opportunities that you think you have found there and expand on those aspects as well?

[3.45 p.m.]

**Mr BEVAN** - The ITOM study is something that is held every two years. There are currently 27 countries right around the world involved. We provide data into that study in terms of our system performance, our asset performance and how much we are spending in them. The analysis comes out very broadly in a matrix with a cross-hair and you can be low-performing high-cost, which is where you do not want to be, or you can be high-performing low-cost, which is where you want to be.

We have plotted our course along the diagram for the last five studies, so over 10 years, and to start with we were actually quite low performance with relatively high cost, and over the years - and I am happy to provide you with some data to show you that - we have migrated and got ourselves into the right quadrant where we have high service levels at relatively low cost.

We know our own position so we can benchmark ourselves against other individual companies and other clusters of companies, for example American companies, Scandinavian companies, Australian companies. That is an excellent news story and I think it justifies the fact that we have spent a fair bit of money recapitalising this business and that is tangible evidence that has had a good impact on the business.

**Ms WHITE** - It makes specific reference to the telecommunications as well, which I am interested in.

**Mr BEVAN** - The telecommunications is not part of that study specifically, although if you had a telecommunications problem which led to a plant outage it would count in terms of those figures. But the telecommunications business is very robust and we are after the 59s, or 99.9999 per cent reliability, and I think for the last three or four months the reliability of that system has actually been at 100 per cent. One of the reasons we are very keen to have our own telecommunications business is that we do not believe that we can achieve those levels of reliability by signing up with Telstra, for example, especially in some of those remote areas like Queenstown where their service level availability is such that if something goes wrong they guarantee that they will have you back on in two days. Well, two days from our point of view is not acceptable.

**Ms WHITE** - It mentions as well that the emergency services are able to utilise that. Is that the same service?

**Mr BEVAN** - There are a number of services. We are also involved in the trunk mobile radio system, TMR. The specific thing you are talking about there is that we have signed a couple of contracts with the Crown to provide some services to them in Hobart and Launceston. They were very interested in having some secure sites for some of their systems and it was a companion opportunity for some things we wanted to do ourselves. We were building some new facilities to accommodate our own emergency and back-up IT and comms arrangements and we just added a

little bit of extra space onto those and have leased it out to the Crown, primarily to police and emergency services, to give them secure north and south facilities rather than for them to have to go and build something dedicated themselves.

**Ms WHITE** - And that is working well so far?

**Mr OXLEY** - It is working very well.

**Mr BEVAN** - The southern one is commissioned and we have done the work we need to on the northern one. I was up there a week ago and the police are currently installing their equipment in those facilities.

**Ms WHITE** - And that will provide them with 99.99 per cent reliability, you hope?

**Mr BEVAN** - In that particular case, all we are doing is providing a secure site; they are installing their own equipment, but it does connect in part to our system. Their reliability is going to be dependent on their own performance, not ours.

**Mr BOOTH** - Talking about secure sites, how are you going with the theft of towers?

**Mr BEVAN** - We haven't had any towers stolen. I think you are referring to the fact that about four months ago a couple of bundles of steel were stolen off the Waddamana-Lindisfarne line in the Broadmarsh area.

**Mr BOOTH** - Yes.

**Mr BEVAN** - That was the contractor's issue. It won't affect us; it is his problem, not ours.

**Mr BOOTH** - Have you had issues with the decommissioned towers being stolen? Are they yours?

**Mr BEVAN** - No. We let a contract for decommissioning, which included disposal of the steel. That was all in the contract price, so if there was steel stolen on decommissioning, that's not our problem.

**Mr BOOTH** - As a general question, do you have problems across your agency with theft or vandalism damage to your assets?

**Mr BEVAN** - Not a lot. Occasionally we might have someone who takes a potshot with a firearm at insulators. We have recently pretty much finalised an enhancement program for our substation security with electric fences, video camera surveillance, infra-red inside the fencelines, so that if there is any intruder we will know about it. For substations where we have installed that equipment the rate has dropped to zero, with no successful attempts at site access. We have had a couple of people try but they didn't get in. They may have got a bit of a fright on their way in.

**Mr GUTWEIN** - Any safety or accident issues?

**Mr BEVAN** - No, it is really just like a farm electric fence, so it is quite safe. It will give someone a bit of a belt but it won't kill them.

**Mr BOOTH** - What about bird deaths, particularly raptors, on the transmission lines?

**Mr BEVAN** - We monitor that very carefully. We have a very strong environmental management system that is accredited to ISO14001. In the past 12 months I am not aware that we've had any raptor incidents. We had a couple of incidents, I think, in the previous financial year in the north of the State with swans on the Tamar River. We monitor that very carefully and work in conjunction with Parks and Wildlife. Also on construction issues, for example on the Waddamana-Lindisfarne line, one of the environmental surveys that was done was on raptor nesting sites to make sure that we weren't in those areas during the breeding season. It is something we take very seriously.

**Mr BOOTH** - What about flocks of birds, with their wings joining together sometimes?

**Mr BEVAN** - Yes, the spacing of transmission lines is such that that is not so much a problem as it is for distribution lines. It is just a matter of the physicality of the arrangement of the wires.

**Mr GUTWEIN** - How many flock electrocutions are you aware of?

**Mr BOOTH** - It is not uncommon with flocks of starlings on low-voltage wires, for example; if they all fly up in a bunch and their wings touch the wires they will sometimes go up in a puff of smoke.

**Mr BEVAN** - We had no bird interactions reported last year but we had three the year before. I think they were all swans.

**Mr GUTWEIN** - Richard, this will be your last Estimates in the role you are in.

**Mr BEVAN** - It will.

**Mr GUTWEIN** - I am presuming you will not get an opportunity to front the expert energy panel over the course of that period. When do you finish?

**Mr BEVAN** - I finish on 31 December this year. We are ready and willing to support the expert panel but I will not be taking a role in that.

**Mr BOOTH** - You could still go along if you wanted to give evidence anyway.

**Mr BEVAN** - I think I would probably be conflicted, to be honest, in terms of recent history.

**Mr GUTWEIN** - Perhaps you would like the opportunity in the few minutes we have left to make any public statement -

**Mr BOOTH** - A confession.

*Laughter.*

**Mr GUTWEIN** - that you will not have the opportunity to make before the panel. What is your view in regard to reaggregation, or the vertical integration, of perhaps Hydro and Aurora?

**Mr BEVAN** - The prime benefit of disaggregation was that it enabled each segment of the industry to focus on its business and I think the proof is in the pudding, if you like, in terms of Transend's performance. The board has had a very clear view over the past decade and a bit about focusing on the Transend.

**Mr GUTWEIN** - You have stuck to your view on this and done very well.

**Mr BEVAN** - I was part of the integrated business prior to Transend being created. It was a bit of an issue in terms of where you allocate scarce capital: are you going to build network or are you going to build dams or whatever. A key positive outcome from disaggregation was enabling the boards of the various companies to really focus on the issues that were important to them. In terms of the future, clearly that is something for the expert panel to deal with. Internationally, you can see what some of the trends are. You are seeing in particular aggregation of generators and retailers for risk management purposes.

**Mr GUTWEIN** - That seems to be a growing trend, doesn't it?

**Mr BEVAN** - It is all about risk management: can you afford the risk of just being a retailer without having some access to generation and vice versa? We are also seeing some tendency to smarter grids. I think distribution systems are going to have to get a lot smarter and probably get into the space where transmission system have been, perhaps more so because of the nature of transmission systems. We are seeing a merging of transmission and distribution technologies. Whether that leads you to a view that you put them together, I do not know. As I indicated earlier in the hearing, we work very closely with Aurora for the system operation aspects and the system development aspects, so to some extent whether it is called Transend, Aurora or whatever is pretty much a second-order issue. The processes of managing the networks would not change as a consequence of rebranding or reaggregating the networks business.

**Mr GUTWEIN** - So that is the Aurora distribution business?

**Mr BEVAN** - Yes. Transend has no interest in being a retailer, so to consider putting Aurora as it stands and Transend back together would make no sense.

**Mr GUTWEIN** - I was going to go down that path when you raised the matter that you have a light vehicle fleet and that you use Aurora's distribution people or other contractors. Just how much crossover is there and would there be some efficiencies?

**Mr CHALLEN** - That is a method of achieving the minimum cost of Transend operations. I do not think it leads you in any particular direction about the structure of the two businesses, it is just the cheapest way for us to do our business.

**Mr BEVAN** - Indeed, Aurora Network Services services Aurora network, the same as they serve Transend network; it is the same model. To some extent the structure and ownership of the various parts are incidental, certainly at that end of the business anyway.

**Mr CHALLEN** - Transend's business is more focused on the system, the technicalities of the system and keeping it secure. Aurora's business is more focused on looking after customers. There are some obvious synergies between their activity as a retailer and their distribution business. We are rather distant from the ordinary retail customer because we are focused on the reliability of the system as a whole.

**Mr GUTWEIN** - But there would have to be some synergies. It is poles and wires, just larger poles and larger wires, to some degree.

[4.00 p.m.]

**Mr CHALLEN** - Superficially that is true, but given the way we are organised at the moment, where we are buying poles and wires maintenance services from Aurora, I do not think there would be a lot to be gained from plugging the two businesses together. That said, we do not have a view on it one way or the other. There is a body of work to be done. I am looking at the costs and benefits of this and if the benefits outweigh the costs we will not have a problem with it. I think there are also some cultural issues that people need to be fairly sensitive to. The cultures between our wires business and Aurora's wires business are very different.

**Mr GUTWEIN** - In what regard?

**Mr CHALLEN** - Again, it comes back to the nature of the work that our people do. They are mainly focused on the system and its reliability, whereas Aurora's people are focused serving mum-and-dad customers. They have grown apart over the years since disaggregation. I would not underrate the complexity of changing the current structural arrangements. The other thing is that there is some logic in the Aurora retailer being connected to some generation capacity. Richard will correct me if I am wrong but I am pretty sure that under national electricity law a transmission company cannot own generation.

**Mr BEVAN** - That is right.

**Mr CHALLEN** - So if you want to think of the best structure for the Tasmanian electricity supply industry, it is probably more important to focus on the relationship between retailer and generators and some logic about the distribution business being close to a customer-focused business - which is a retailer - and leave the rather small operations of Transend to continue focusing on system reliability and system enhancement. I do emphasise that, whilst the Transend board has had discussions about these matters, we do not have a view on them. One way or the other we are happy to live with whatever arrangements come out and are confident that the expert panel will look carefully at this and consider the costs and benefits of different models.

**Mr GUTWEIN** - Everybody is going into it with an open mind.

**Mr BOOTH** - Can we thank Richard for the time that he spent interchanging over various Estimates. Your forthright and honest responses are very much appreciated and good luck in the future.

**Mr GUTWEIN** - It has always been a pleasure.

**Mr GREEN** - In my introductory remarks I congratulated him on his service to Transend and I do that again.

**Mr BEVAN** - Thank you.

**CHAIR** - Thank you everyone.

**The committee adjourned at 4.03 p.m.**