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**THE PARLIAMENTARY STANDING COMMITTEE OF PUBLIC ACCOUNTS MET IN COMMITTEE ROOM 1, PARLIAMENT HOUSE, HOBART ON MONDAY, 15 AUGUST 2016.**

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## **INQUIRY INTO THE FINANCIAL POSITION AND PERFORMANCE OF GOVERNMENT-OWNED ENERGY ENTITIES**

**Dr VICKI GARDINER**, GENERAL MANAGER TASMANIA DIVISION, ENGINEERS AUSTRALIA, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

**CHAIR** (Mr Dean) - Welcome, Vicki. Thank you for your attendance today. All the evidence today is being recorded and will be made public. Parliamentary privilege applies whilst you are in this committee but once you leave here you are on your own. If at any stage through the inquiry you would like to raise an issue you believe should be taken in camera, the committee will look at that. You provided a submission on behalf of Engineers Australia, so I will give you an opportunity to speak to your submission.

**Dr GARDINER** - Thank you for your time this morning. I would like to talk more around energy security and the way forward. What is energy security? The International Energy Agency defines energy security as the 'uninterrupted availability for energy sources at an affordable price'. The Australian Department of Industry says energy security is about Australia's ability to meet the energy needs of the Australian community and industry, both in the short time and the long term.

Is it all about supply? As an energy consumer, I am concerned about having reliable power to my home to keep my family's standard of living. I am concerned about power costs being reasonable but, ultimately and thankfully, my family is in charge of its own electricity bill every quarter. I was a mother who told my kids to turn the heater down from 25 to 18 degrees, and told them to put a jumper on.

Here is the new dimension to the equation that does not get mentioned enough, and that is demand. Engineers Australia is the peak body for the engineering profession. Our mission is to promote the science and practice of the discipline for the benefit of the community. Engineers Australia has identified five key priority areas that need attention to build Australia going forward into the future. One of these is energy and its security. After all, any energy crisis hits the country's, and the states', triple bottom line.

In late 2014, Engineers Australia published its report Energy Security for Australians. This report was the basis of our submission to the Tasmanian Energy Strategy in 2015. There were three key recommendations to the report, the first one being the need to redefine the definition of energy security, the second being to treat energy security as a wicked problem and thirdly the need to have a long-term vision and strategic plan for the future.

I have already mentioned the word 'demand'. In reality, we as a state ensure that our energy supply strategies are satisfactory, if we don't also look at the demand side of the relationship. This highlights that energy insecurities actually arise from the following four key domains. Firstly,

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state economic and state securities; second is food and water security; third, sustained development and environmental security; finally, social stability and energy stress.

In addition to this, energy security needs to be recognised as a wicked problem and should recognise interdependence of energy security with other government strategies - for example environment, social and economic policies. This not only helps drive energy productivity with much better understanding of long-term demand but also allows for the broader understanding of threats to energy security, such as adverse climate conditions as we have experienced in Tasmania this year.

Long-term planning that considers the first two points allows energy entities to better identify future energy needs for Tasmania. There is a clear relationship between energy security and the long-term planning of energy infrastructure. One of Engineers Australia's key platforms is the need to reduce the boom-bust cycle of infrastructure projects. As such, energy security and infrastructure planning should not be used for political practices; rather it should be managed to advance the socio-economic goals of the community.

Finally, consumer education is the key area that is given only token acknowledgement - like in my example where I have to inform my kids why we only have the heater at 18 degrees. Empowering consumers to make effective choices and look at how they can reduce their own demand, and reduce costs without lowering their standard of living, can help to alleviate energy stress and poverty, as well as help energy entities plan their infrastructure and innovation investments strategically rather than in an inefficient stove-pipe approach to solutions.

While ever a government's definition of energy security focuses primarily on the supply of energy to maximise returns to the state and keeping costs to a minimum, strategic solutions to meet the challenges of a changing social and economic landscape will be a dream.

**Ms COURTNEY** - In the recommendations at the end of the paper you refer to the Australian Government's integrated transport energy efficiency. Could you elaborate a bit more on how that actually pertains to Tasmania? Transport energy efficiency on the mainland is different. We are a very dispersed community. We are very reliant in domestic use on cars - sometimes not particularly efficient cars. Can you explain it a bit further in the Tasmanian context?

**Dr GARDINER** - Outlined in the energy security report is our high reliance on liquid fuels. If you look at the levels of liquid fuels located in Australia and on land and the like, we are actually underneath the recommendations as put forward by the international agency.

When it comes to Tasmania, what have the opportunity, and this is what I have been working on of late with various people, to look at how we do urban development. Again, it comes back to interdependencies of where population, urban development and land use policies all come in. We are looking at better ways to move people around, the journey management side of things. We are actually starting now to look more at public transport options rather than car-use culture. That is possibly where we need to start heading. Certainly a push towards energy-efficient cars and the like. For cars that are fuelled by liquid energy like petrol, while their energy efficiencies are increasing we need to start looking alternative energy sources and alternative technologies.

**Ms FORREST** - One of the key issues that the committee is looking at is the long-term financial sustainability of energy entities. You have talked about the aging infrastructure of many

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areas in our state, particularly the dams are quite old and the infrastructure is quite old that delivers the energy. Also you have made the point that both Hydro and TasNetworks should consider extending their long-term plans to 20 years to align with the Tasmanian Energy Strategy. There is also a need to have a long-term vision and strategic plan for infrastructure investment that incorporates smart ICT solutions, so in terms of Hydro particularly, but TasNetworks as well have now taken a lot of the poles and wires from Aurora, there is a huge amount of infrastructure there. If we are going to be looking forward and more people going off-grid and things like that, how do you see that being managed from a financial position as well as from an infrastructure position by the entities?

**Dr GARDINER** - It is a challenge to be honest. That is part of when it comes back to identifying not just the supply but also the demand. If we cannot start to model demand based on government policies and the like, then it is going to be much more difficult.

Certainly the dam infrastructure and the like is ageing, but then there is also a lot of innovation that comes with keeping those dams sustainable and also increasing the output that they can manage. One of the projects we had some students working on recently was the Rowallan Dam as an example, and how they are doing some more work to keep that dam, which is already 100 years old, around for another 100 years, so certainly the dams themselves are not necessarily going to be the issue. It is part of that adoption of innovation; now we need to start looking at diversifying where our energy is coming from, whether that be increased wind farms, starting to look at innovation within wind farms in terms of making them more effective and efficient. How do we then start bringing in solar to that? How do we bring all those technologies into an integrated energy system?

**Ms FORREST** - Whose role do you think that is in this? TasNetworks, for example, are fairly focussed on what they are doing at the moment and aware of those challenges. I have asked questions of the energy entities over the last few years across the table about these challenges. It was only a couple of years ago that I think the chair of Transend at the time said, 'No that is years away. We don't have to worry about that.' Clearly it is not with battery storage and all that generation that is going on, so who do you see that responsibility lies with? Is it at policy level from government? Is it a government business level, that they need to be at the front end of that innovation and everything?

**Dr GARDINER** - It is actually a bit of both. Unless the government policy is there to allow the entities, and even private investment for that matter, to actually invest in new technologies and the like, there is no incentive for those people to invest. The graphics in the submission show the difference between public versus private investment. There is an opportunity there for private investment to contribute to this. I know that in terms of upping the research into innovation, and commercialisation of new technology is really important, that is probably where perhaps a joint public and private investment scheme can occur, but ultimately it is government policy that will drive whether or not that kind of investment takes place. When it comes to developing new technologies, yes it is the entity's role to play a part in that, but it is very much government policy that drives whether or not they have the capacity to be able to do that.

**Ms FORREST** - My electorate covers a lot of the energy-generating assets around the state. There have also been other suggestions and ideas in terms of wave energy, other wind energy solutions, and even some solar and currents and all sorts of things. What I hear from people from private enterprise who are proposing these things is that there is enormous pushback from Hydro.

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It seems they want to be the monopoly provider of energy in our state. Are you aware of any barriers in that area, or is it perhaps that people are not doing it the right way? I do not know.

**Dr GARDINER** - I could not comment on what their interactions with Hydro are. I have no experience in that space, but the experience I had when I was working on the renewable energy development initiative was certainly around the risk that is there when you are taking new technologies to commercialisation. It is a large risk. That is part of the submission. We have suggested that certainly there is going to be the recognition that taking new technologies to commercialisation does require investment and policy levers that can help get to that point, but recognising that it is only to the point where it gets to commercialisation; it should be market-driven ultimately. Yes, there is a policy part to that as well.

**Mrs RYLAH** - I would just like to go back to the demand recommendation, where you are suggesting that become part of the energy security issue. What we do already know is that, overall, Tasmania has excess supply over demand, hence we have an interconnector that is supplying energy to the state. In terms of increasing demand, much of your submission talks about decreasing demand, so reducing consumption of energy, going to lower energy options. Where does Engineers Australia fit in terms of the issue of demand overall, when we already have a statement. We basically know where we sit as a state, that we have excess supply over demand.

**Dr GARDINER** - If you start looking at the broader picture, at what is going on in the mainland where you have a lot of coal-based generation that is starting to be closed down over the next 10 or so years, certainly there are going to be opportunities there for Tasmania if it looks at ways it can diversify its energy solutions.

If you are looking at it from both sides, looking at what happened recently, if we were to have low water storage, for instance, and we are going to need to bring energy in from the mainland, which we have done in the past, as the technology there is being replaced and there is not a lot of policy on what is going to replace that technology, how is that then going to affect Tasmania? That is part of that energy security. What is going to happen; what could happen in the future? Yes, we do know where energy demand is at the moment, but do we know what is going to happen when the population increases to the 650 000 that is proposed in the population strategy? Where are they going to be? Is there going to be demand in the right places or is there going to be supply in the right places? They are the kinds of things that come back into the discussion.

**Mrs RYLAH** - Just following on from that, in terms of the supply side, you have mentioned wind and solar as low-energy options. You have not mentioned nuclear, which of course is a very important low-carbon energy supply issue. Where does Engineers Australia sit on that subject?

**Dr GARDINER** - Engineers Australia believes that all energy options should be put on the table. It does not believe there is one solution; it all needs to be considered. Certainly we have been quite involved in the nuclear debate, especially in South Australia. I have not kept up with that one myself, so I cannot tell you what the outcomes were, but I can send our submissions to those inquiries if that is required.

**CHAIR** - What is your position, then, in relation to a second Basslink cable? Have you addressed that at all? Do you have a view on that?

**Dr GARDINER** - It is part of a solution. Is that again a stove-pipe option solution or is that part of a larger strategy? What is the purpose of that second interconnector? What purpose is it

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supposed to be serving? Should that be part of a larger strategy? Should we also be looking at diversifying our power generation options for Tasmania?

**CHAIR** - Do you have any meetings with Hydro? Are you consulted by them? Do you have any input at all? What is the relationship?

**Dr GARDINER** - Engineers Australia has a lot of members located in Hydro Tasmania. At one point, if not still, it was Tasmania's largest employer of engineers. They go across electrical, mechanical, civil - all the disciplines of engineering. We have a lot of representation within the organisation at those higher management levels.

**CHAIR** - So you have that input into Hydro from members of Engineers Tasmania.

**Ms FORREST** - I want to follow up with a question on the second Basslink. I want to frame it by repeating what you have in your submission. You say:-

The Tasmanian infrastructure report card 2010 highlighted the need to address Basslink infrastructure vulnerabilities as the importance of this infrastructure grows, and the lack of redundancy was highlighted as a future challenge. This is reinforced by the current situation faced by the state, and Engineers Australia is glad to see this is now being addressed.

It stresses that any solution needs to be included in the long-term plan for providing for Tasmania's energy needs, and consequently the structure as a whole, not in isolation - which is what you have basically said. We have asked Hydro and other experts about Basslink, and the likelihood of a breakdown in their contract. There was a 60-day period, and that up to 60 days they could reasonably expect that could occur and that it would be repaired in that time. In the previous outages prior to the last one, the longest was nine days. It does have failures at times, usually short lived. From your experience as an engineer, and also Engineers Australia's view, are these undersea cables subject to failures as dramatic as this? Is this unlikely to occur again? There are a number around the world and I am interested your awareness of the cable's likelihood of failure.

**Dr GARDINER** - I need to clarify that I am not an engineer so I do not have the skills and expertise to answer that.

**Ms FORREST** - Would Engineers Australia know about the likelihood of these failures of energy interconnectors, because at one stage Hydro were telling us that this catastrophe happens very rarely and is not likely to occur again, whereas I am aware from the Scottish interconnector that it happens more regularly than they would suggest? Are we able to get that information from Engineers Australia?

**Dr GARDINER** - I would have to consult with the technical areas within the organisation.

**CHAIR** - In your submission, on page 3 you talk about an approach to effective energy efficiency, productivity and the key component of consumer education, and at the end of that paragraph you make the comment:

We reiterate a statement from the Tasmanian infrastructure report card 2010 that demand management has significant potential to reduce peak demand and

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that structural and cultural reasons limiting the uptake of command management need to be addressed.

Has that been addressed? I am talking about a report that was in 2010. Is that being addressed in a significant way or is it not being addressed? Is it letting us down?

**Dr GARDINER** - One of the comments we made in the submission to the draft Tasmanian energy strategy was around that; there is some talk of consumer education but not necessarily a large focus on that. At the moment there is a certain base level that the infrastructure needs to be able to manage. If you can then start to increase efficiencies through better buildings, for instance, being able to explain to consumers how they can improve their energy use and the like, you can then start to plan your infrastructure to take on lower levels of base load. That is where that statement comes in - being able to reduce peak demand.

**CHAIR** - When you talk about energy security and looking at this area, what is your view on the position we've just gone through, being in a critical position in this state in the provision of energy to all, as to whether enough was done at that time to ensure continuation of and supply of energy in this state? Was there enough done, because there has been a lot of evidence and questions around getting onto general consumers, before they did, to ask for reductions in power use and all those issues? Do you have a view as to how that was managed?

**Dr GARDINER** - Ultimately those decisions are for the organisations. I would like to point out the positive way they managed to bring a new power plant into Tasmania in such a short time. That is a success that should be acknowledged, but certainly the way they choose to do their stakeholder engagement is up the organisations involved.

**CHAIR** - Vicki, thank you very much for your presentation today.

**THE WITNESS WITHDREW.**

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**Mr JACK GILDING**, EXECUTIVE OFFICER, TASMANIAN RENEWABLE ENERGY ALLIANCE, WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

**CHAIR** - Welcome. Parliamentary privilege applies while you are in this committee but once you leave here you stand alone. If in the taking of the evidence today it seems to you that evidence should probably be taken in camera then please make that request of the committee and the committee will make the determination of how they should receive that information. It is being streamed live as well.

**Mr GILDING** - Where we are coming from is representing the renewable energy industry, particularly the smaller renewable energy industry in terms of solar, small hydro, small wind and so forth. We believe that Tasmania's energy security, the affordability of our energy and environmental benefits would come from greater use of renewable energy in Tasmania. At the moment it is an objective fact that we do not generate as much electricity as we use. On average we import energy from the mainland and we believe that is an undesirable situation - environmentally, economically and in terms of energy security.

The recent energy crisis obviously highlighted some of those issues. Unfortunately it has not led to the amount of analysis that it should have as a result of that. Part of the reason, which I have tried to address in this submission, is that a lot of information is not available. A lot of information we believe should be available and the need for that has been highlighted by the energy crisis.

The GBEs, particularly Hydro Tasmania and Aurora, have voluminous annual reports, but when you get down to the nitty gritty in the finances there is a single line that says their whole income or their expenditure. That allows no analysis of what is going on. Quite important issues, like how much of Hydro's money comes from selling large scale generation certificates versus selling electricity, the costs of different forms of energy generation - hydro, diesel, gas et cetera - are not available because there is no breakdown of the costs.

The other issue that is highlighted is the lack of modelling of our energy situation. For example, our dams got extremely low and are going back up again quite well, but they are still only at 36 per cent, which is only 6 per cent above the new safe minimum, and we are exporting energy quite substantially. We have exported the equivalent of 2.5 per cent of our total energy storage capacity since Basslink came back up. The dams are filling up but we are also exporting energy where we could possibly be saving that energy because we may need it later on in the year. The issues we are concerned about are that modelling - understanding where we stand, having the figures to be able to analyse what different sources of energy cost. Everybody agrees that the cost of diesel generation was extremely high. It is consistently said that the cost of gas generation is higher than hydro. In a situation where we are not producing as much energy as we are using, then renewable energy is the way to go and we should have policies to support that, but the facts are not available to really make that case.

**Ms FORREST** - This is to do with the data Hydro release and make available to better understand their financial position. I have battled that for a while now. You did say that you believe they recently exported 2 per cent of our storages effectively. I would have thought, with the current weather we have had, the majority of that energy generation would have been from run of river.

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**Mr GILDING** - It is possible, yes. I do not know whether the total amount that is being exported is run of river. That is another issue that we do not have facts on.

**Ms FORREST** - That is the thing. This is a matter that I plan to pursue with Hydro further, to actually put a value on water in the dams, in storage, because they do have a monetary value, and to be more transparent about what is run-of-river generation and what is generation from storage facilities. Do you think if that information was more readily outlined in their annual reports or financial statements - and accounting standards don't require them to account for that, but it does not mean they cannot do it, obviously? Would you like to see that sort of information made available?

**Mr GILDING** - Yes. We do not know at all publicly what the strategy is. Why are they exporting at the moment? It might be because it is run of river and it will flow over the top if you do not use it; it might be that they believe they can make money on it. That is based on a decision of the trade-off between making money on it now versus what it is worth later on. None of those decisions about how we manage storages are available to the public.

**Ms FORREST** - If you were sitting across the table today and we had Hydro in, what questions would you ask them? What do you believe we need to know more of to actually help us better understand their energy security policies, but also their financial management and their financial sustainability into the future?

**Mr GILDING** - I am not an expert on the financial side, but certainly in terms of the strategy side, it is what is the basis of the decisions that are being made? They are making decisions all the time. Technically they are making decisions to set prices, which then determine which way the electricity flows. In reality they are making decisions about whether they want to export electricity or whether they want to save the water. We do not have enough information about the basis of those decisions.

**Ms FORREST** - Is there any other area you think we should be asking them about? You have identified the different sources of energy and that sort of thing?

**Mr GILDING** - The trade-off between security and making money. Obviously it is in Tasmania's interest to export energy and make money from it if that does not undermine our energy security, but we do not know the basis of those decisions. We do know that on balance we will end up importing more energy than we export, unless the rainfall keeps going up and up, which is possible but we do not know that. They are risk decisions and we do not know the basis of them.

**Ms FORREST** - We are always going to have periods of drought.

**Mr GILDING** - Yes, sure.

**Ms COURTNEY** - In your submission you question whether the most cost-effective way of meeting the energy shortfall during the Basslink failure was diesel, compared to, for example, paid demand reduction. What type of demand reduction were you hoping to see?

**Mr GILDING** - The first thing was that there was almost no message given to the public about the need to conserve energy. On the contrary, the message given out was 'everything is



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under control. Business as usual.' The implicit message was that you can go on using electricity as much as you like. That is the first level, the voluntary reduction. The next level is paid reduction. People were, for example, proposing ideas about people getting refunds on their Aurora bill if you used less electricity than you did last year. There are a number of things that you can do to encourage both voluntary and then to pay people. My understanding is that with some of the major industrials, they refer to them as 'commercial arrangements', but they were basically, as far as I can understand, paid to reduce their demand. Some of it may have been voluntary. Some of it was a commercial arrangement. Those commercial arrangements were not available to other industrial customers. There was no plan that said, 'If you use less electricity, we will pay you this much'. That is another way.

We had a shortfall. We could not produce as much electricity as we needed. One solution was to get in a whole lot of diesel generators, at whatever the cost, and generate the electricity. Another way of doing it would have been to have said, 'How can we use less electricity?'. Would it cost us less to pay people to use less electricity than it would to get in the diesel generators, fire them up, all that kind of stuff?

**Ms COURTNEY** - Obviously the major industrials are using the lion's share of power in Tasmania. Because of a sliding scale of power prices, a lot of people are energy efficient, so it is interesting whether, if people were paid, that would actually change behaviours and whether that would be more cost effective than paying for guaranteed power.

**Mr GILDING** - That is what we do not know. There was no public discussion about an alternative approach to the crisis, so the only solution offered was the one of generating more electricity, which everyone agrees was very expensive. Yes, we do not know how much we would have reduced demand if we either asked people to reduced voluntarily or paid them to reduce it. Those issues have not been tested.

**Mr GAFFNEY** - When you say people to reduce the demand, are you talking about the average personal residential?

**Mr GILDING** - Both.

**Mr GAFFNEY** - Because on the scale of energy consumption, given the minuscule amount of energy that we use in residences compared to large businesses, surely going to the large businesses was the most obvious way of reducing energy requirements.

**Mr GILDING** - Going to the main industrials was obviously the best way of reducing consumption, but I would not say that the rest was minuscule. I think the major industrials are 50 or 60 per cent - people have different figures - so the other half is residential and industrial. We do not know how much they would have had a capacity to reduce their demand.

**Mr GAFFNEY** - You made mention earlier about the 36 per cent the dams were averaging now; how do they come up with an appropriate level? They would say that running at 25 per cent will satisfy Tasmania's requirements, and they have to run it as a business, I suppose. You made the comment that 36 per cent is perhaps not enough to get us through the summer period. Why or how would you make that comment?

**Mr GILDING** - Because we know that we use more electricity than we can generate, and because we know it is still fairly low compared with historical common averages. We know that

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the dams will go up over the next few months and then they will start going down again, because that is what they do every year. It is a trade-off in knowing how much we should have in storage. It is not that I have a proposal; the problem is that we do not have the information about the strategy behind it.

**CHAIR** - On the flow of river, water is flowing into the rivers, generating power that is being sold off and that is probably acceptable in the circumstances, but that would only apply, would it not, if the dams that were supplying the water for that energy production were filled. We are told that the main lake providing water to this state and energy is still only at about 36 per cent.

**Mr GILDING** - No, the average is 36 per cent.

**CHAIR** - The Great Lake is still well down and I am not sure what the latest figure was on that, so that could only be said, could it not, for those lakes where the water is being taken where those lakes are almost at capacity?

**Mr GILDING** - Yes; we do not know whether the electricity being exported at the moment could have been kept in storage or physically, because of where it was generated, it could not have been stored.

**Ms FORREST** - That is the point I was making. With run of river, if you do not generate with it when it is running, then you lose it. It flows out to sea and is gone. I argue the point that Hydro should tell us. They could have done themselves a much better PR job because a few days before Basslink went down they were exporting, but I was informed that it was run of river, not storages, so they would have lost it if they had not generated with it. It is all about being more open about where the generations coming from, is it not?

**Mr GILDING** - It is.

**Ms FORREST** - They are two separate systems, basically.

**Mr GILDING** - There are some parts of the system that, if you do not use it straightaway, you will lose it.

**Ms FORREST** - That is right.

**Mr GILDING** - And there are some parts where you're making a decision to run it out of the dam or not.

**CHAIR** - In your third paragraph it says:

State governments argue that market mechanisms provide the best way of ensuring energy security at the most affordable price, but in fact the energy market in Tasmania, despite being operationally part of the National Electricity Market, is far from being an open, transparent and competitive market.

Having made that statement, what should they do to satisfy the issues you have raised there?

**Mr GILDING** - Ultimately we need more generators that aren't part of Hydro. If you want a competitive market, you need to have people who build wind farms - and it will probably be wind

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farms because there's not really any capacity for large hydro. So you need policies that encourage private developers of wind farms. At the moment, Hydro is 98 per cent of the generation so they set the price completely, whereas if there were other generators there would be a competitive market. Some of the decisions Hydro made would have to be made more by taking competition into account.

**CHAIR** - Is wind the only one you are addressing there or are there are other major areas we should be considering in this state for energy production?

**Mr GILDING** - Solar and battery storage is advancing very rapidly. In the next few years it is not going to be a large percentage but we should be planning for it. If a significant percentage of the population had batteries in their vehicles and homes and the smart software that can feed it back, that would produce a completely alternative source of power. We should be planning for it now but that is probably five or six years away. That would also increase the competitiveness of the market, but in the short term it is basically wind farms. Longer term is also tidal and wave energy, but that is further down the track.

**CHAIR** - Does the alliance have a position in relation to the second Basslink cable that is now being talked about?

**Mr GILDING** - We don't have a formal policy about it. We do not have enough information to make that decision. It is good that the Warwick Smith inquiry is looking into that at the moment. The only point of having a second interconnector is for energy security if one of them fails, until you are generating more electricity than you are using. We are using the current Basslink to import; we could use it to export if we had more generation capacity. We could export more of the time if we had more generation capacity. I am not convinced there is a case for spending \$1 billion on reproducing something we already have which could export more energy if we produced more energy.

**Mr BACON** - You've talked about the difficulty you have found getting information from Hydro Tasmania on the trade-off between profit and energy security. Is that information you have been seeking for a long time?

**Mr GILDING** - No, we haven't actively been seeking it from them but I am aware it is not on the public record. There is no discussion of it, no documents about it. When you look at the government's energy policy there is nothing in there that says these are the sorts of trade-offs we're choosing to make about security versus making money.

**Mr BACON** - But you would see it as a good outcome if there was a lot more transparency around it and that data was available so your organisation and others could be properly informed as to the public debate?

**Mr GILDING** - Yes. It is an important public policy decision as to the trade-off between Tasmania making money from exporting energy and our energy security. The energy security is absolutely crucial but there are trade-offs there which are difficult to make because of the unpredictability of rainfall. The public needs to be involved in that discussion, and we do not have the information to do it.

**CHAIR** - On the second-last page of your submission you raise the issue of what we are requesting and you believe this committee should recommend the following. You make the

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statement, 'There is no public modelling of future supply and demand options to inform public debate about energy policy'. Can you go into that in any further detail?

**Mr GILDING** - Yes. Given those uncertainties I think scenario planning is the way to do it, and there is no model out there. There is very good historical information about what has happened and how much is in the storages. There is not very good financial information about how the money flowed but there is good physical information about the storages. There is no modelling saying this is what will happen if we get the average amount of rain, or this is what will happen if we get 50 per cent less than average amount of rain. So the crucial variables are how much rain we get, and whether something major happens to our energy demand, either because a major industrial shuts or because demand increases, so you really need scenario planning so you can see the variety, because you cannot absolutely know what is going to happen.

**CHAIR** - And planning needs to take into account all likely occurrences, and we had a number of them recently.

**Mr GILDING** - Yes.

**CHAIR** - Thank you very much.

**THE WITNESS WITHDREW.**

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**Mr ALAN BIRCHMORE AO**, CHAIR, AND **Mr ANDREW FULLARD**, GENERAL MANAGER, LAUNCESTON FLOOD AUTHORITY, WERE CALLED, MADE THE STATUTORY DECLARATION AND WERE EXAMINED.

**CHAIR** - Welcome. Parliamentary privilege applies to the evidence and discussions that we have in here now. Once you leave this table that privilege no longer applies. Discussion will be recorded on *Hansard*. If we reach a stage during the hearing where you feel there is evidence or information you would like to give to this committee in camera, please request that of the committee and the committee will make a determination.

**Mr BIRCHMORE** - There are a couple of things that have arisen since our submission. Our purpose today is to request a small sharing of water from the South Esk River between the city of Launceston and Hydro Tasmania.

August 2016 appears to be a very opportune time. Hydro Tasmania has indicated a wish to expand their business through the acquisition of a second Basslink. We make no comment on that, other than to say that there is obviously confidence in Hydro and the Government that substantial amounts of additional electricity can be generated for export to the mainland. If so, we contend that there is perhaps an opportunity for even greater state benefit to be had by allocating the relatively small but critical amount of that going to Launceston's needs.

The LFA has moved back from a request in the May submission for a full return of the South Esk. We now believe that, based on recent studies, the problems can be solved with a return of only 18 cubic metres per second from the average South Esk flow of 60 to 70 cumecs. Why 18 cumecs? There are a couple of reasons. I won't canvas one of them because it is not sufficiently advanced at this stage. The valves at the base of the dam would allow that amount of water to be let go without any infrastructure costs or whatever.

**Mr BACON** - That could be done almost immediately?

**Mr BIRCHMORE** - Could be done tomorrow morning. This would leave Hydro effectively retaining the majority of water for power generation at that small station. In the submission you would have seen that likely generation from Trevallyn is in the order of 2.8 to 3% OF Hydro's total. It is small in the scheme of things. With that, there would be an immediate and beneficial affect for Launceston.

Since making the submission in May there have been some important developments. Launceston experienced a one-in-50-year flood in early June. It was a major event and police advised voluntary evacuation of Invermay. Some 2 500 cumecs raged down the South Esk. To put that in context, two-and-a-half olympic swimming pools per second were rushing down the Gorge. Boulders the size of rubbish tins were left up on the lawns of the tea rooms in the Gorge. Simultaneously, 800 cumecs were estimated down the North Esk, a record level for that river. That added to the emergencies. It met the South Esk head on at Launceston. The new \$58 million levies and major river bank repairs had been completed just in time. All gates and penstocks worked to design and expectation, and the protected area remained totally dry.

Was Launceston in the best possible shape for a major flood? No, it was not. Sediment levels in the Tamar upper reaches were at dangerously high levels. It is sobering to remember that the 1929 monster hit Launceston with a 4 000 cumec flow. It killed 22 people, caused countless property damage and a local economic depression for the city and surrounds which

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lasted more than 10 years. That flood could happen again at any time, and indeed many forecasters are predicting greater frequency and stronger natural occurrences. There is no room for complacency, and the events in June were a stern reminder to us all.

I will ask Andrew to demonstrate the sediment levels and what can be done and what is done at the moment.

**CHAIR** - So long as we stick to our terms of reference.

**Mr FULLARD** - Chair, I remind the committee that the sediment levels in the Tamar estuary directly impact the flood levels of the city. It is not exactly known what that critical level is, but the experts tell us that any increase in sediment will amount to a decrease in flood protection. We have been monitoring the sediments for flood protection purposes since 2008.

The city of Launceston used to dredge. Essentially they spent \$4 million (over three years) and it was inconsequential. We, on the other hand, have been using a method of sediment raking, which is augmented and assisted heavily by river flows. It is unsuccessful without river flows. A good example is in 2011; we had 41 spills over the dam. We managed to move over a quarter of a million cubic metres of sediment out of the estuary. That provides Launceston with better preparedness for floods. In the very dry year of 2015 the sediment raking was ineffectual. The sediment levels were getting back to levels they were back in 2009-10. The chairman's comment in regard to Launceston not being in the best position is demonstrated by the sediment levels. Our request for water is based on our statutory requirement to protect the city of Launceston from floods. It can only be done effectively with the assistance of high flows from the river. That is really the basis for our request.

**CHAIR** - You raised the fact that the Trevallyn Power Station is producing less than 4 per cent of the state's total output. Have you raised with Hydro why they would need to keep that power station running in these circumstances, when its production is fairly low on state needs. Has that been raised?

**Mr BIRCHMORE** - We did have a couple of meetings. In 2015, the Treasurer, Mr Gutwein, organised a trial because Hydro said they doubted the effectiveness of raking. So 25 cumecs were let go for a period of three days. We did that trial. During that period, the productivity rose by 1000 per cent - 995 per cent or something in that order. That information went to Hydro. We did have some correspondence back from them. It was inconsequential. We are always happy to talk to Hydro, but we are not hopeful of good outcomes.

**Ms COURTNEY** - Obviously, being a member for Bass, the health of the Tamar River is very important to me and my constituents. With this new proposal about the 18 cumecs of the average of 60 to 70, was 18 chosen because that was the capacity of these valves at the bottom? The second is that you talk about the variability of river flow. In terms of the amenity of the dam at the top, which a lot of people use for other purposes, would this 18 cumecs be constant, and therefore you have the potential to possibly have variable dams during dry seasons? Could you talk about the variability of the river and the flow for electricity generation?

**Mr BIRCHMORE** - There is no reason for the water levels at the lake to change. We are already talking about a sharing of that water, not taking some arbitrarily in front of Hydro. I think there would have to be some flexibility, so if Hydro was not generating we would have to accept that we would not get any water either. I do not see this as an added stress, but strictly as sharing.

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In terms of why the 18 cumecs, it is a very clever question because I have chosen not to make a point but there is perhaps an opportunity for other electricity generation with that water, even twice, but I would rather not canvas that at this stage. There are some moving parts to that so I would rather not hang any of our arguments on that, but there is a very promising development which is possible. Let me leave it at that. The size of the 18 cumec release can be handled through existing valves.

**Mr FULLARD** - In terms of the amount of water coming down the river, CSIRO did a very thorough study a few years ago into the quantity of the water. Annualised, there is about 75 cumecs average flow down the river, so requesting 18 is approximately 25 per cent of that volume. That would leave the majority of water at their disposal for power generation, so it is not an insurmountable volume.

**Ms COURTNEY** - In terms of that 18 cumecs, do you have an estimated dollar value of what that would be in forgone revenue or is that more of a question of the Hydro?

**Mr BIRCHMORE** - In the past Hydro have always said this is the dollar value of the sales, but if you look at Hydro's profit you would say this particular power station is a small contributor to its profit, so then I think it is fair to say that the amount of loss to Hydro would be quite small. If you asked that same question of Hydro they would say it was huge because they would use the sales loss rather than the impact on state benefit. So the impact on state benefit I think would be so small it would be hard to measure.

**Mr GAFFNEY** - I am interested in seasonal flows and the raking. I suppose at low flow time, in summer when there is low rainfall, are you better off to have the raking 12 months of the year or are you better off to do more intense raking at certain times when there are greater flows in the river? Does it have to be 12 monthly or are you better off to concentrate on when the river flows are naturally stronger because of the rains and whatever?

**Mr FULLARD** - Initially we targeted the months of June, July and August because historically that is the time of the greatest natural river flows. That was borne out in 2011, 2012 and 2013. The only flow we got in 2014 - this is over the dam - was in August, so it is testimony and they are the months we target our raking. We try to prepare the river in advance and then keep our fingers crossed that there is going to be a spill-over of the dam. Does that answer your question?

**Mr GAFFNEY** - Yes, it does. With the sediment settling, if you don't have the 18 cumecs for five months of the year, can you get rid of the same amount of sediment within six months if you are continually working on it with greater flows from natural, than having it over 12 months? It is hard to get rid of the sediment, say in January, February March, just because of the natural decreased flow, whether you had 18 cumecs or not.

**Mr FULLARD** - The sediment accretes at a rate every month. In a dry flow that is about 12 000 cubic metres a month. When there is rain and there is flow down the river, that accretion rate actually reduces, so that you get less sediment present after a constant flow. It is evident below the tailrace where you have far less fluctuation in sediment levels because you have that constant flow from the tailrace, so we are proposing that you will get less sediment accretion in having a constant flow down the river, which will also assist our sediment raking at the same time, so we get a double benefit.

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**Mr GAFFNEY** - Is it one raking facility, a large machine or both?

**Mr BIRCHMORE** - Yes, it is. We do not intend ever to budget more than \$300 000 a year to do this. We keep it simple and concentrated and we have only ever done it in the winter. It only ever works when there is water flow, and in the winter that is your best chance of a water flow.

This is where we go outside our responsibilities. I draw your attention to the fact that between Kings Bridge and the tailrace, the Tamar Estuary is nothing short of a national disgrace. It has huge readings of enterococci and so on because there is this cluster of sewerage plants where the South Esk and North Esk meet and form the Tamar Estuary. We know that for pure raking purposes, if we were to get a flow during winter in a couple of targeted months, then I think we could look after the sedimentation without a problem. However, the problems for that part of the river of Tasmania's second largest city are huge. The solution is simple and effective - and that is flushing. When those plants were first designed, that was before the Trevallyn Dam. They were designed in the expectation that by CSIRO measurements there would be 75 cumecs flushing it. It no longer gets it; it gets 2.5 cumecs, which is little more than a creek. We unashamedly put that in our recommendation. The sedimentation is easier fixed than the flushing, but nobody seems to be talking about the flushing, but it is of extreme importance to Launceston. Enterococci readings of 60 000 parts per million where the recommended level is something like 500. It is a very serious problem and, to our observation, constant flushing is the thing. That is outside our responsibility and we could get by with winter-only flushing.

**Mrs RYLAH** - I note, as you have mentioned, that your report was written before the large flooding event we have had. I am interested in your perspective in regard to the state of the river following the flood event. In regard to the flushing that may have occurred in the sedimentation, you mentioned that the upper reaches were heavily sedimented as well. Are you able to give us an update on the total amount of water flow and what the effect has been?

**Mr FULLARD** - We were going to give you these bathymetric surveys which I think might have helped.

**CHAIR** - You can table those documents; they would be useful.

**Mr FULLARD** - The flow at the peak of the flood in June was approximately 2350 cumecs. That sustained a flow of over 2000 cumecs for in excess of 36 hours. The flood caused a large scouring event in the upper estuary. The inset picture shows a mask. When you do a survey you put a mask about an area so you have a defined area to measure. That is the mask from Kings Bridge to the silos in Launceston, so it is the upper estuary. On that document, the pink stripes are where we have done raking campaigns. The yellow stripes are previous historic dredging campaigns. The green spikes from the bottom are the South Esk flows. The blue spikes on the bottom are the North Esk flows. It is a fairly comprehensive record of sediment management. We survey approximately every two months to record that.

We were fortunate; we had a survey on 2 June before the floods which occurred between 6-10 June. During the flood event, just out of this mask alone, we lost 226 000 cubic metres of sediment scoured through the flood. What is important about the raking we undertake is that the sediments are naturally cohesive. If they are left to sit for periods of time, which they had been prior to our commencing the raking, they did not wash out in floods to any large degree.



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**Mrs RYLAH** - They glued together?

**Mr FULLARD** - Yes, they get glued together. Raking loosens the sediment, so part of the large loss from this flood was due to the fact that the re-accretion that occurred was recent and the sediments had not become cohesive. From Kings Wharf to Kings Bridge, 370 000 cubic metres of sediment were lost. If you take that further down to the AMC from Kings Bridge, in excess of 880 000 cubic metres was scoured out of the river. The satellite photos we have seen suggest that most of that got into Bass Strait, so it has exited the river. Part of our management strategy is now to monitor the re-accretion rates after the flood. We haven't seen a flood like since 1969, so there is no database or information to see what happens next.

**Mrs RYLAH** - Do you believe your levees helped give greater effect to the scouring, because it contained the water within the river?

**CHAIR** - I will allow the question, but it is not really pertinent to our terms of reference.

**Mr FULLARD** - Possibly in the North Esk, but in the South Esk the river stayed within the river channel predominantly.

**Ms FORREST** - Looking at the financial sustainability of the energy entities, the question I hear you proposing is: what would it cost Hydro to accede to your request and allow more flow in the South Esk? If you were sitting on our side with Hydro on the other side, what would you ask them?

**Mr BIRCHMORE** - With respect to Hydro, I think the cost is Launceston's cost, not Hydro's. It is Launceston's cost if this is not done. I believe Hydro's cost is affordable; I am not sure Launceston's is.

**Ms FORREST** - Is that a question for government about a matter of policy?

**Mr BIRCHMORE** - I think so.

**Ms FORREST** - So if you had the minister across the table, what is the question to the minister?

**Mr BIRCHMORE** - As far as Hydro is concerned?

**Ms FORREST** - Yes. You're talking about the cost to Launceston, and I hear what you're saying, but our terms of reference are about the financial sustainability of the energy entities. There is a cost to Launceston if you are looking at a whole-of-state approach, which I hear is what you are saying. What would you ask relevant ministers?

**Mr BIRCHMORE** - Our argument is that if you take the size of the contribution from Trevallyn and reduce that by a quarter, and work out the contribution it has to the total profit of Hydro, it is not very much. If you were to ask Hydro that, they will quote the sales loss, and I'm not sure that is a fair measurement.

**Ms FORREST** - How would you pose the question?

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**Mr BIRCHMORE** - I am a very polite person and I am not sure I am in a position to ask a question of the minister about his portfolio. What we are saying here is a balance of measurements. We can put one argument, but I am not sure we are in a position to advise Hydro on what it should do.

**Ms FORREST** - Hydro focuses on energy security and profitability, and we as the taxpayers of Tasmania expect them to make a profit so they can return dividends to the state so we can fund health, education and infrastructure - including flood levees in Launceston, potentially. What goes around comes around. Does there need to be some directional leadership from government in terms of identifying a broader issue than just the Hydro cost here?

**Mr FULLARD** - Perhaps you could frame your question in terms of what has been the cost to Launceston to not have that water in terms of loss of development, loss of tourism, loss of all the other assets that benefit from having a wow-factor river raging down into the centre of the city. What is the cost of that? That is a question we can't answer but maybe that is question for the Treasurer.

**CHAIR** - I go to the second-last paragraph of your submission, page 1, where you suggest that the solution to the situation is growing demand and customer base. That is what I think you were saying Hydro's version is, that they are concentrating more on that than on the issues that impact on Tasmania, and in this case on Launceston. Is that what you are saying?

**Mr BIRCHMORE** - As an interested bystander reading the Press and so on, it seemed to me that, with the level of export versus the level of import, Tasmania would have been quite okay after those two dry years with the water it had and without those exports. We are saying no more than that really. We think the pressure point on Hydro's demand for screwing the last drop of water out is for its exports rather than the interests of the state.

**CHAIR** - Thank you for that.

**Mr BIRCHMORE** - Where to from here? The flood authority has its own act; it has legislated responsibilities for life and property. We have a small board which involves the Mayor of Launceston, the General Manager of the City of Launceston, Dr Ingles, Don Wing, myself, and Andrew is the general manager. We are not in a position to gamble on whether there is going to be sufficient water coming down the South Esk for us to carry out the only affordable way of sediment removal, so really this is no more Mr Nice Guy. We have that legislated responsibility. We take it seriously and we are not prepared to roll the dice on whether or not we are going to get some water. If you look at that chart, you can see what happened with a couple of dry years and we have been denied water, and you can see what happened when \$4 million was spent over three years dredging - and the sediments went up.

**CHAIR** - The committee may pursue some questions with Hydro in relation to the Trevallyn Power Station and its value to Hydro. I suspect there may be some questions there and some other questions coming out of what you have raised here today and what is in your submission. The committee is still to take further evidence on this. The committee will make findings in relation to its terms of reference in due course. The committee wants to conclude this inquiry at its first opportunity. Hopefully that can be this year but we can't say it will be. It depends on how things. No doubt there will be some reference perhaps to the Trevallyn Power Station and water flows. Thank you very much.

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**THE WITNESSES WITHDREW.**

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Mr GRANT EVERY-BURNS, CHAIR (BY PHONE); Mr STEPHEN DAVY, CHIEF EXECUTIVE OFFICER; Mr MILES SMITH, CHIEF FINANCIAL OFFICER; AND Ms RACHEL STEVEN, MANAGER, GOVERNMENT RELATIONS, HYDRO TASMANIA, WERE RECALLED AND RE-EXAMINED, AND Mr STEPHEN BENDEICH WAS CALLED, MADE THE STATUTORY DECLARATION AND WAS EXAMINED.

**CHAIR** - Thank you for joining us again for some further questions.

Stephen, you may be aware that parliamentary privilege applies on any statements made in this precinct but on leaving here it no longer applies.

**Mr EVERY-BURNS** - I thank the committee for hearing us again. I apologize for not being there in person. I reiterate where I started at the first meeting. The dry period that commenced in September 2015 and lasted until April 2016 was very dry by any record, containing a number of sequences, each representing the driest in 100 years. Within the same record dry period, the Basslink undersea cable failed, cutting off power connections to the mainland in totality. Power flow into the state at that time was running at about 40 per cent and had in the prior months been making up for the low in-flows. The consequences of this failure were magnified by the repair time amounting to 176 days, against our contractual expectation of 60 days. These are facts and they are at the heart of the energy supply situation which gripped the state for eight months.

At the present moment, as the committee is aware the hydro storage continues to rebuild and our total energy in storage at midnight was 37.3 per cent and rising.

We would like the opportunity to address some of the comments that have been provided in evidence to the committee most recently and even in media reporting since last June. Subjects we feel the need to address are, first, an opinion piece that appeared in the *Mercury* over the weekend, attributed to Opposition Leader. Second is evidence which was given by the Tasmanian Gas Pipeline Group at the most recent hearing, and comments made to the committee and reported in the media regarding Rio Tinto Bell Bay. Given that I cannot be in the room today, it would really assist me if Mr Davy could provide details of those matters.

**Mr DAVY** - First of all, in relation to the opinion piece by Bryan Green, Opposition Leader, in the *Mercury* over the weekend, I make it clear that it was Hydro Tasmania that gave advice to the Government that the combined-cycle unit was not required in Tasmania any longer, and that we recommended to the Government that it should be dismantled and sold.

Mr Green has asserted that Tasmania could have avoided the costs of temporary diesel generation if the combined-cycle turbine had been returned to service sooner. The combined-cycle unit remained available for service while it was on dry lay-up. The decision to recall it came at the end of the lowest spring inflows on record, but before the failure of the Basslink cable.

It was after the failure of the Basslink cable that the energy supply plan was put into place, which included securing temporary diesel generation and negotiated load reductions with other customers. These actions were taken because of the uncertainty about the return to service of Basslink and of storage levels.

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The maintenance regime needed to take the combined-cycle unit out of dry lay-up was the reason for the time it took to return to service, but that time did not make a material difference to the storage position. In our view, the diesel generation would have been necessary as an insurance policy in any case at the time that it was rolled out, given the uncertainty about the return to service of Basslink.

The Tasmanian Gas Pipeline representatives has asserted that if Hydro Tasmania does not enter into a contract with that business, it will put prices up for customers, and that will damage Hydro Tasmania commercially. The remarks by Tasmanian Gas Pipeline are simply designed to disparage Hydro Tasmania and to strengthen the bargaining position of this private company and to further their own interests.

This is exactly the sort of behaviour that the ACCC is seeking to prevent. It is our responsibility to resist such negotiating tactics in the long-term interests of Tasmania. It is our view that the committee should question the merits of the majority of the assertions made by Tasmanian Gas Pipeline in this evidence.

Rio Tinto Bell Bay, through Ray Mostogl, has suggested that the energy businesses have not been effective in recent years, in particular the last six years. We find these assertions odd given that six years ago we signed a new agreement with Rio Tinto Bell Bay designed to take that business through to 2025. In 2012, Rio Tinto Bell Bay sought to renegotiate this deal, claiming it could not operate under the newly negotiated deal.

We agreed to renegotiate and when a new deal was finalised, Rio Tinto announced that it was now able to confidently operate into the future. In 2015 we assisted the business again in its need to become exempt from the Renewable Energy Target and assisted with an increased load transaction, which they said would see their future secured.

Despite all the support from the state-owned energy businesses, aluminium businesses in Australia are struggling. This is about international markets, not about a lack of understanding or our support of these businesses. Mr Mostogl has also told the committee that his business heard about the proposed sale of the combined-cycle turbine in the newspaper. The announcement that dismantling and sale would be explored was made by the minister, Mr Groom, at the GBE hearings in December 2014.

Over the next few months, during contract negotiations there was ample opportunity for Rio Tinto Bell Bay to raise concerns about this potential plan. The company has also been reported as stating it received no compensation for recent negotiated load reductions. Thank you again for allowing us to present information to assist the committee's deliberations.

**CHAIR** - Thank you for that. Just so I am clear on that, you entered into an agreement with Rio Tinto - was it six years ago, you said, which takes you through to 2025? Is that right?

**Mr DAVY** - That is correct. The first time we negotiated the transaction through to 2025 was in 2010. In 2012 they indicated that they would not be able to operate the business under that contract and renegotiated the terms of that contract in 2012.

**CHAIR** - Are there no other issues you want to raise at this stage with the committee?

**Mr DAVY** - Those are the remarks we sought to make. Thank you for the opportunity.

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**Ms FORREST** - In terms of that last comment, with the 2012 renegotiation, were there substantial changes made at that time - I am not asking for details - that would enable Rio Tinto Bell Bay Aluminium to operate more profitably in the market or whatever they needed to do to remain viable?

**Mr DAVY** - Yes, the changes were substantial.

**Ms FORREST** - A couple of points have been raised by different witnesses, which you may not have had the opportunity to hear unless you were watching this morning. The energy generation comes from two sources - run-of-river generation and storages. Am I right?

**Mr DAVY** - Yes.

**Ms FORREST** - As to marketing and PR, it would do well for Hydro to identify when we are using run-of-river, which essentially you lose the value of if you don't generate. There are a number of people who seem to have this impression that whenever Hydro is generating it is drawing down on the storages. Are you in a position where you can identify when run-of-river is being used, particularly when we are exporting power, as opposed to energy being used from storages? I accept they are building up and getting higher, but there is still this public perception Hydro is drawing down on storages when they are still building them up.

**Mr DAVY** - That is correct. Over the past week our storages have gone up by 1.3 per cent. The reason we are exporting while that is going on is largely that we have a lot of water in storage, either in short-term storages or in longer-term storages that we need to generate so the water that is likely to arrive over winter can be stored. There is a high risk that if we didn't generate with that water we would spill a fairly equivalent volume over the next few weeks as the rains continue to arrive over winter. We have been providing some public commentary on that over the last few weeks but what you're suggesting is we should do that on a permanent basis, are you?

**Ms FORREST** - Particularly in your annual report. There is a degree of misunderstanding perhaps in the general public, as well as some of us who are more informed in the area as well, as to how Hydro is managing its storages. I believe there is a need for a greater transparency and openness about what is being used to generate energy, particularly in periods of export. The criticism is that we are selling off our power when we should be using it here. Are we banking our water and then importing energy from coal-fired stations? It is important that we understand, as well as the general public of Tasmania, how Hydro is managing both systems of generation.

**Mr DAVY** - I will take that comment on board, thank you.

**CHAIR** - The question arising from that - and it was raised with me this morning and by members of the public - is, when you say you are using run-of-river flows to generate the energy that is being exported, with the Great Lake being the greatest water storage in the state and that still at 28.1 per cent, if the lake is still at a level below 30 per cent at least, is any of that energy that is currently being produced from water taken from the Great Lake storage area? If it's only 28 per cent, shouldn't we be allowing run of water to continually fill that at this stage rather than drawing on it and using that water to generate power we are exporting to the mainland?

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**Mr DAVY** - My understanding is that the Great Lake has already recovered to something close to our target levels for this time of year. Our conduct over the last few months is to rebuild Lake Gordon and Great Lake as much as possible, but I don't have off the top of my head how much of the generation over the last week was from Great Lake.

**CHAIR** - That's a point I am making and the public is making. Originally the limit set was, I think, 30 per cent - there was the figure that was originally put around the storage level of our lakes.

**Mr DAVY** - I don't know about the history of storage management prior to my joining Hydro Tasmania, but we were operating in a band between 30 and 40 per cent up until 2012 and now back to operating in that 30 to 40 per cent band.

**CHAIR** - Looking at energy security for this state to get through currently experienced situations, rather than export would it not be desirable to try and increase the level of Great Lake? Currently it is below 30 per cent. That leaves 70 per cent still under. Would there be a better option? We are looking at energy security, the big question asked in this state now. Bell Bay Aluminium are asking about energy security. We need to be secured of energy security if we are going to get big industry into this state.

**Mr DAVY** - You can be assured Hydro Tasmania take very seriously the need to review all of the decisions we have made as a result of what we have learnt over the last six months. We have experienced more inflow variability, we have experienced a longer Basslink outage than we previously used in our models. We are in the process of reviewing all that information to come up with improved ways of managing our system.

We will also be providing that information to the Energy Security Taskforce. We will be working with the Energy Security Taskforce so they can understand fully what we are saying, but also so they can provide advice to the government about how they should oversee the operations of Hydro Tasmania and other energy entities.

Yes we understand it, but those kinds of things are things we take into account as we review all that over the next six or so months. For the moment, what we have done is restored our preferred minimum operating level to 30 per cent on 1 July. We are targeting to be at 40 per cent by the end of spring, early summer, and are well on target to be above that level.

The genesis of this public session was there was some questions from Ms Forrest that were not asked and I want to make sure we have sufficient time to answer those questions.

**Mr BACON** - The Treasurer has released a preliminary outcomes report today and it shows Hydro Tasmania has returned a dividend of \$11.4 million, over and above what was expected, as a result of better profit outcomes for 2014-2015. When was that dividend actually paid?

**Mr SMITH** - That would have been for 2014-2015. The last dividend we paid was in December last year and would have related to the year before that.

**Mr BACON** - That would have been for 2014-2015?

**Mr SMITH** - Yes.

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**Mr BACON** - I am looking at the notes from the Treasurer where it says that additional \$11.4 million would have been paid in December last year.

**Mr SMITH** - I am not sure. I will look at the outcomes report.

**Mr BACON** - The Treasurer released this today and it does show there is an increased dividend from Hydro Tasmania of \$11.4 million as a result of better profit outcome for 2014-2015.

**Mr DAVY** - That is the increase in the dividend over the actual dividend over the forecast? Is that what you are saying?

**Mr SMITH** - I do not have that in front of me but I can answer the question quite easily.

**Mr EVERY-BURNS** - Steve, let me know if you would like me to comment on this because I can do it.

**CHAIR** - Yes, go on.

**Mr EVERY-BURNS** - I think the reference being discussed is in relation to what the amount is for the final year, wherein we were expecting to return a dividend of about \$13 million. Miles, you can correct the numbers if you need to. What happened in fact was the company had a very good year and we earned a higher profit than expected. This would have meant at 90 per cent payout ratio, the company would have been looking at paying out somewhere in the order of \$30 million plus in dividend at a time when we still believed the capital structure of the company needed to be addressed.

I put it to government at that point in time, it would be more appropriate to give some of the profit to pay down debt, and pay government more than we had projected in budget and the corporate plan. That is precisely what happened. The dividend we agreed to pay to government was the order of \$25 million rather than the \$13 million promised or, in the alternative, rather than 36 or 37, that would have gone automatically out of the calculation and in fact made it more difficult for Hydro at a time when it needed to continue debt reduction and it needs to maintain cash as well. That is the core of what has happened there.

**CHAIR** - Thank you. Did you want to add to that?

**Mr SMITH** - I understand now what Mr Bacon was asking. I was a bit confused. We paid \$25 million cash dividend in December last year, so it was not 11. I was a bit confused.

**Mr BACON** - So the 11 is the increase over and above what was projected originally in the Budget?

**Mr EVERY-BURNS** - That is precisely my understanding of it.

**Mr BACON** - So those discussions took place late last year about the size of the dividend Hydro have paid to government?

**Mr EVERY-BURNS** - No, I do not think it was late last year. In the August period as the accounts are being settled, the board has to take a view on the dividend it recommends to



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government. At that point in time, the board took a view on what would be the most appropriate commercial way forward and with the authority of the board I entered into discussions with the Government.

**Mr BACON** - In August last year?

**Mr EVERY-BURNS** - Correct. I do not have documents in front of me.

**Mr BACON** - No, I can understand that.

**Mr SMITH** - It has to be before August so the board has to recommend a dividend before the end of August.

**Mr BACON** - So when the board recommended you negotiate with the Government about the size of the dividend, the sale of the combined-cycle unit at the Tamar Valley power station was still on the table?

**Mr EVERY-BURNS** - I do not think we actually received the go ahead at that point in time to explore the value in sale. If I remember correctly I had asked for that as Steve said today. The corporation advised the board this would be sensible. We agreed. I wrote to the Government in a letter that has been quoted in the previous hearings around January of the year and the response I think came through in September. The dividend discussion, if my recollection is right, predate the actual go ahead from government to explore, but we were already obviously moving down the path to attempt disposal - sell the DC for the price we thought was fair.

**Mr DAVY** - I want to make sure we clarify the timing. Can we get back to you to clarify the timing exactly.

**Mr BACON** - 12 August I think was when Minister Groom put out the press release to say permission had been given to him to decommission and sell.

**Mr DAVY** - Then 12 August was definitely before the board considered the dividend situation.

**Mr BACON** - Permission was given, then the board considered the dividend.

**Mr EVERY-BURNS** - Be very cautious. You are reading too much into it. I am the Chairman of the Board and you trying to make - to think - at a level it did not occur.

**CHAIR** - Grant, can you clear it up then? Grant, are you able to add to that?

**Mr EVERY-BURNS** - I am saying too much is being read into this. I don't recall us having specific thought bubbles or process that went to the timing one way or the other. These were separate issues. The issue of the dividend was considered as an issue at that point in time.

**CHAIR** - Thank you, I will come back to Mr Davy.

**Ms FORREST** - On that point, I do not have the mid-year financials in front of me either. This is a change since the mid-years? When they were released there was not an expectation that Hydro would be paying a dividend. I remember the Treasurer at the time putting out media

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statements saying the expectation of high level dividends from Hydro was being revisited, and downward revised. Are we looking at an upward provision here? Is there an expectation that Hydro will be able to provide more in terms of dividends?

**Mr SMITH** - Are we talking about the same thing?

**Ms FORREST** - Yes.

**Mr SMITH** - Not this summer just gone but the last summer?

**Ms FORREST** - In August last year you made predictions about dividend payments.

**Mr DAVY** - No, these were dividend payments in relation to the previous year. We were not providing any -

**Mrs RYLAH** - 2014-15

**Ms FORREST** - Yes. So, you haven't provided any advice for this past year to government about your expected dividends?

**Mr DAVY** - Yes, we have.

**Ms FORREST** - That is not reflected in the outcomes. That is the previous year.

**Mr SMITH** - That is a different year.

**Mr DAVY** - The government has already said in its budget that it does not expect dividends from Hydro Tasmania. Nothing has changed since then.

**Mr BACON** - The government was made aware of this in August last year, particularly about this additional \$11.4 million?

**Mr SMITH** - In August last year, what happened was a large process of preparing accounts. They were very thoroughly audited by the Auditor-General, and usually by one of his contractors as well. In this case it was Deloitte. We have to have those accounts back and signed off by 15 August. They are some pretty tight deadlines. That is more than most listed companies can achieve. There is a small window after that for the board to consider the result. On that year that has just been, from 30 June back, they will then recommend a dividend.

**Mr BACON** - Effectively, permission was given by the government on the 12th and the decision was made after that to increase the dividend by \$11.4 million for the financial year 2014-15. That was paid to the government in December of last year.

**Mr DAVY** - No, you misconstrued what occurred. We have a dividend policy. The dividend policy is that 90 percent is paid. What the chairman was referring to was a decision by the board to approve a dividend that was lower than the dividend policy, not higher.

**Mr BACON** - Higher than what was predicted originally in the budget.

**Mr DAVY** - Less than the policy.

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**Mr BACON** - But higher than what was predicted in the budget. The chairman did talk about the capital structure of the business and it still being under some pressure even at this stage.

**Mr DAVY** - The decision the board makes isn't whether or not to approve a dividend as it relates to some previous prediction, whether or not to make a dividend exactly in line with dividend policy or a different one.

**Mr BACON** - You decided on a dividend that was lower than the 90 per cent because of the situation the company was in?

**Mr DAVY** - That is correct.

**Mr BACON** - Okay, thank you.

**Ms FORREST** - I wanted to ask some questions about your revenue, particularly looking at financial sustainability in future. In March this year, I asked a question on notice about the number of renewable energy credits generated by Hydro Tasmania since the advent of Basslink. The answer I got was in calendar years which made it difficult to line up with a dollar figure, which is presented on a financial year basis.

I then asked what the average price of RECs was in each year and was told that it was commercial in confidence. How can a figure calculated by dividing one publicly available figure by another publicly available figure be commercial in confidence? The only thing stopping me from doing the calculation was that one set of figures was on a financial year basis, with other one on a calendar year basis. Are you able to provide information about the value of the RECs in a meaningful way? I cannot see how they can be commercial in-confidence.

**Mr DAVY** - You asked the question in March of this year?

**Ms FORREST** - Yes.

**Mr DAVY** - Through?

**Ms FORREST** - Through the Parliament, which you would have had to answer, I imagine.

**Mr DAVY** - The revenue each year comes from lots of things. Are you asking -

**Ms FORREST** - The renewable energy credits revenue. The REC revenue is presented in the Auditor-General's report in 2015. In this case the revenue only refers to revenue of the parent company. That is all I am interested in here, the parent company. Can you please tell me the amount of REC revenue for 2016, the year just finished? Can we also reconfigure and re-present the REC figures and quantitative figures on a financial year rather than a calendar year basis? It is impossible to line them up. You are reporting this financial year. The REC revenue information I was provided with was calendar year.

**Mr DAVY** - We do not have that data here in front of us. I cannot give you an answer here. You are asking, can we provide it at some later stage?

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**Ms FORREST** - Yes, the information regarding the revenue from RECS, renewable energy credits.

**Mr DAVY** - Can we take it away and look at which parts of that calculation are confidential, to see what we can do that provides more clarity? We will have a look at that.

**CHAIR** - You are taking that on notice. We are going to come back to you with a question from our secretary.

**Mr DAVY** - Yes.

**Ms FORREST** - I am interested in what the future REC income and revenues are likely to be.

**Mr DAVY** - So are we.

**Ms FORREST** - I am sure you are. I notice the REC base level, which is publicly available, says that the REC base levels, 8 839 gigawatt hours for Hydro Tasmania's Hydro power stations. In 2013-14, all but Butler's Gorge and Palooona stations managed to generate above base levels. In the next year, only 25 per cent of them did. So what has happened in this, the 2015-16 year? What about next year?

**Mr DAVY** - I think we can be very transparent about how the REC volumes from our base line - to give a bit of a high-level explanation - we create the large-scale generation certificates - LGCs - from our Hydro plant when each power station exceeds its annual generation figure, which is, as you say, a calendar year number.

Because that calendar year number is largely exceeded towards the second half of the year, and the certificates themselves become available for trading in the early part of the following year, around January, the calendar year generation figures do line up rather well with the financial year revenue figures for the LGCs that are created from our Hydro activities.

We also have wind farm off-takes which operate quite differently. Those are the confidential parts, the wind farm off take agreements that we had with the Woolnorth joint venture and with another wind farm, Waterloo. Waterloo is in south Australia, we had it built with China Light & Power many years ago. We still have a contract with them.

In coming up with the total revenue from LGCs there is a mixture of what happens from our Hydro plant and how we resell the LGCs that come from the off take arrangements. Not every element of the revenue number can be disclosed. You are right, if the total amount of LGCs produced was a certain number of LGCs and the revenue was a certain number, then dividing one by the other gives you an average price. That average selling price includes the activity of buying at a fixed off-date price and reselling it at a market price, mostly through to our customers.

**Ms FORREST** - I will have to go back and do a bit more research on that. In terms of future, the near future as well as the long-term future generation of RECS, will it just be the run of rivers generating RECS in the short-time in your view, for the next 24 months? I imagine it will be difficult for the big storages of Gordon and Great Lake because of the low levels they have got to. If we continue to see the rains maybe that will change. Even so, the REC base level is more

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than your expected level of generation in the future, isn't it? The REC income is going to be a bit limited, perhaps?

**Mr DAVY** - That's right. It is very rare we have a year where the generation for each of our generators is exactly equal to the REC base line. This is because of the variability in inflows and also the use of the longer-term storages when it's drier. Unless it's very dry and we don't run the major storages, usually some of the systems are exceeding their base line for their year, less than normal, in the normal course of events.

**Ms FORREST** - What do you expect in income for the coming year?

**Mr DAVY** - We can look at a variety of information but I don't have that number off the top of my head. I will include that as part of the question on notice.

**CHAIR** - We still have a number of questions so we would like you to come back again at a convenient time for yourselves and the committee. Thank you very much for being here today. We accept you are wanting to support and provide information to this committee.

**THE WITNESSES WITHDREW.**