

The Government Owned Corporations Scrutiny Committee convened at 1.30 pm.

Mr CHAIRMAN: Good afternoon everyone. Thank you very much for your attendance today. I declare open this public hearing of the Government Owned Corporations Scrutiny Committee of the Legislative Assembly of the Northern Territory on Friday, 20 June 2008, and extend a warm welcome to everyone.

I table a copy of the Order of the Assembly dated 11 June 2008, which appoints a committee for the purpose of examining and reporting on the activities, forms, principles and financial management of the Power and Water Corporation, a government owned corporation under the *Government Owned Corporations Act* with reference to the Power and Water Corporation's Statement of Corporate Intent 2008-09. The order effectively uses the current membership of the Public Accounts Committee. I should also point out that the timing for the public hearing is from 1.30 pm to 3.30 pm today in accordance with paragraph 14 of the Order of the Assembly.

I also report that the member for Port Darwin was elected Deputy Chair of the committee in accordance with paragraph 4 of the Order of the Assembly. I also advise that, as a result of a resolution of the committee, media can be present and are able to report and broadcast proceedings of this hearing.

Some procedural issues I should bring to everyone's attention before I call for questions include that, under section 19 of the Terms of Reference for this committee, questions should be put directly to the Chairman of the Board of the Power and Water Corporation, with assistance from the Managing Director and other officers as required. That is fairly flexible and we have had an informal working out of the order; however, we will come to that when I call for the opening statement. Although this is a public hearing, it should be noted that, under section 20 of the Order of the Assembly, the Chairperson and other witnesses will advise when evidence is of a commercially sensitive nature and that such evidence be heard *in-camera*. As Chairman of this committee, I will invite the Chairman and witnesses to give the reasons for their request.

The procedures adopted by the recently completed Estimates Committee to address questions taken on notice will also be utilised through the public hearing of this Government Owned Corporations Scrutiny Committee. To provide for completeness of process, the opportunity was available for members during the Estimates Committee's public hearings on Tuesday, 17 June 2008, to question the Treasurer on the issue of Community Service Obligations made to the corporation by the government, and dividends paid to the Northern Territory government by the corporation.

I now table the Statement of Corporate Intent and the copy of the Annual Report of the Power and Water Corporation. The committee will now proceed to consider the activities, performance, practice and financial management of the Power and Water Corporation. I welcome from the corporation, Mr Neil Philip, Chairman of the Board, and Mr Andrew Macrides, Managing Director. I now invite the Chairman to make an opening address.

Mr PHILIP: Good afternoon and thank you for the opportunity to provide this opening statement.

2007-08 has been a transitional year for Power and Water, with its new Managing Director, Andrew Macrides, instituting a number of developments and significant changes to the way Power and Water does business. We have commenced a major asset investment program. We restructured our organisation to better focus on both our core services and delivering on our asset investment program. We negotiated a new enterprise agreement, which provides for a fair and equitable pay and conditions structure for our workforce. We focused on the critical issue of fuel supply. We improved customer service following feedback from our customers. We work closely with both the federal and the Northern Territory governments to deliver essential services in remote indigenous communities to support the federal intervention and the Territory government's *Closing the Gap* initiatives.

Our organisation faces many challenges and, to meet those challenges, led by our new managing director, we have changed our operations to focus on: having the right structures and support in place that will enable our people to do their job; delivering a \$1bn asset investment program over the next five years; and continuing to build on our culture of safety and environmental performance.

Our nett profit after tax is projected to be \$53.3m in 2007-08, on revenues of \$462m; and \$50.2m in 2008-09 on revenues of \$488m. Fuel supply is a critical issues to us. In the longer term, gas to power over 95% of the Territory's electricity will be sourced from the Blacktip field in the Joseph Bonaparte Gulf, and that is scheduled to commence on 1 January 2009. All major contracts for the onshore and offshore components of the \$1bn project have been awarded and construction of the \$168m, 268 km Bonaparte gas

pipeline which will transport gas from near Wadeye to the connection at Ban Ban Springs is also well under way. As back-up to those arrangements, we have negotiated a contract for an 11 km interconnection to the Darwin liquified natural gas facility at Wickham Point, together with a contract to purchase supplementary and emergency gas supplies from 1 March 2009.

During 2007-08, Power and Water embarked on a major asset investment program, and that is now projected to be in excess of \$1bn over the next five years. A total of \$200m is projected to be spent in 2007-08, and a further \$217m in 2008-09. This major investment program will not only benefit our customers, but also benefit Territory industry.

The first unit of Darwin's new efficient power station at Weddell has been in operation since April. Construction of this \$86m power station is the largest electricity generation project in the Northern Territory for the past 20 years. The second unit at Weddell was delivered recently and is planned for service by the start of the next Wet Season.

Construction of the new Owen Springs Power Station south of Alice Springs, at a cost in excess of \$80m, also began in 2007-08. This project also includes the relocation of the Titan and Taurus gas turbines from Ron Goodin to Owen Springs, and the installation of new generators.

Security of electricity supply for the Darwin CBD has increased, with the \$20m Frances Bay Zone Substation in the final stages of commissioning.

Cyclone Helen in January this year caused widespread power outages throughout Darwin, and the project to underground the power lines in Darwin has been accelerated, with a substantial capital injection of an additional \$13.6m from government, which was announced in the 2008-09 budget.

The \$10.4m Water Reuse in the Alice project was officially launched by the Essential Services Minister last month, and that will see an end to sewage overflows into Ilparpa Swamp. The project will also provide up to 600 million litres of recycled water a year for reuse for horticultural and other purposes.

There are a number of projects under way to meet increased future water demand in Darwin and in its surrounding areas. We are investigating bringing Manton Dam back into service at a forecast cost of up to \$50m. That will depend on the level of water treatment required. We have started works to test Manton's water quality, and those testing works began on 1 May. The project to raise the Darwin River Dam by 1.3 m also began during the last year.

During 2007-08, Power and Water continued the detailed planning to close the Larrakeyah outfall by 2011, and to upgrade the Ludmilla Wastewater Treatment Plant with expenditure of approximately \$35m over the next four years to complete the project.

Major developments in indigenous communities have significantly impacted on our provision of essential services in remote areas. We are working closely with the federal and NT governments on essential services infrastructure upgrades to meet the increases in demand for electricity, water and sewerage services in indigenous communities arising from these developments. We are also working with the new shire councils to develop the capability of essential service operators in remote communities.

The introduction of a National Emissions Trading Scheme in 2010 is a key driver for mitigating greenhouse gas emissions, and we are working hard to identify methods to manage the impact of that scheme in the Territory. We are developing a suite of green power products and they will be available for Territorians to purchase next year. Around \$20 000 in environmental grants were offered through the annual Power and Water Melaleuca Awards, which recognise and encourage environmental excellence in the community. We are a major partner in the Solar Cities program which is helping the Alice Springs community to build a powerful future as a solar city.

We continue to build future skills and grow our own workforce, with apprentice, trainee, graduate and undergraduate programs and the provision of scholarships, sponsorships and vocational employment opportunities. We currently have 60 apprentices and we are going to continue with our annual intake of not less than 12.

In 2007-08, Power and Water published a Customer Hardship Policy to support customers in need. Under this policy, we provided \$100 000 in vouchers to five community organisations, including the Red Cross, Anglicare, Salvation Army, Sommerville and Centacare to help those of our customers who

were experiencing genuine financial hardship. We also invested \$320 000 in the community through our sponsorship program, which was across a wide range of worthy community organisations.

There are significant challenges ahead for the Power and Water Corporation. It must deliver essential services and provide good customer service; must meet the demands of a growing population; must manage the rising cost of doing business, which is impacting businesses and projects right around the country at the moment; and it must also continue to be able to recruit qualified, experienced staff in what is a very difficult market.

I place on record the board's thanks to the hard-working and dedicated workforce that makes up Power and Water. Their sense of commitment shines through, especially in times of adversity, such as the post-Cyclone Helen restoration efforts.

This will also be the final time that I appear before this committee as Chairman of Power and Water, with my current term expiring in April 2009. I have elected not to seek a further period of reappointment, as fishing is calling. I thank the committee members, past and present, for their courteous approach, along with the staff of the Legislative Assembly for their assistance.

Mr Chairman, just in terms of logistics, I would like to invite the members, with your good grace, to address questions directly to the Managing Director if they feel that appropriate. I believe it will help us. In the past, the majority of questions have ended up being answered by the Managing Director in any event, and it provides clarity with *Hansard* if we are not continually announcing ourselves. Of course, I am absolutely here to answer any questions that are directed to me and will do my best to do so, thank you.

Mr CHAIRMAN: Thank you. I believe we can easily accommodate that.

Mr MILLS: Thank you very much, Mr Philip. Thank you for your service and all the best for the fishing.

Mr PHILIP: Thank you.

Mr MILLS: Welcome, Andrew Macrides. You have been in this position – well, you have been at the microphone before, but not in this position, so welcome. Do you mind? There are some gentlemen and a lady behind you. I do not know who they all are. Did you know that they were there?

Mr MACRIDES: Andrew Macrides, Managing Director. I can certainly introduce my management team to you.

Mr MILLS: If you would not mind.

Mr MACRIDES: Okay, I will go from left to right: Rebecca Kardos, who heads up our Employee and Organisational Services Group; Jim Bamber, who heads up our Retail Group; Bertram Birk, who heads up our Power Networks Group; Allistair Parker, who heads up our Strategic Planning function within the organisation; Darryl Day, Remote Operations; Paul Heaton, Water Services; David Delaporte, our Chief Financial Officer; and John Linton, who heads up our Generation Group.

Mr MILLS: Good, thank you. Now I have faces to some names.

Mr MACRIDES: You might live to regret that.

Mr CHAIRMAN: I was about to say watch out.

Mr MILLS: Only a week ago I was in Perth, and it was quite amazing to see the effect of that disruption of gas supply - the direct and indirect impact and continuing effect in Western Australia. Then, to find out some days later that the Prime Minister was referring to the national economic effect of this. Can you make a comment as to what bearing that has on the Territory? What lessons are to be learned? What provisions are to be made from a remarkable event like that?

Mr MACRIDES: The event itself has had no impact, obviously, on the Territory; it is unique to Western Australia. The Northern Territory is in a unique position in that its generation source is gas fired. That gas comes out of Central Australia at this stage and, from 2009, will come out of Blacktip. All our power generation assets throughout the Territory are dual fired, which means we can actually switch fuel sources in the event of catastrophic failure of gas supply, and we can actually run our generators on diesel. The Territory has a unique position in that it can actually maintain power supply, even in the event of

catastrophic failure of gas supply. Having said that, though, as the Chairman indicated in his opening address, we also are concerned about having multiple points of redundancy within our power generation capacity. We have spoken to ConocoPhillips and negotiated an interconnect through the Wickham Point plant, which will allow us to access Wickham Point and gas supplies on an emergency basis if we have catastrophic failure of the Blacktip pipeline. We have a number of ways that we can continue to supply electricity to Territorians – one is diesel and, obviously, the other then is the interconnect itself.

Mr MILLS: Good, thank you. I guess the impact will be borne upon any negotiations, ultimately, over the cost of gas. Would I be right to assume that an event like this one highlights how vulnerable jurisdictions can be if they do not plan properly? Also, it places an additional premium on the energy that we are purchasing and, therefore perhaps, any negotiations – I understand ENI has already been negotiated; that price is locked in, for what period of time?

Mr MACRIDES: Both the ENI contract, as well as the contract with ConocoPhillips, are locked in, so prices are already based on negotiations that have occurred in the past. Both contracts will have about a 23-year life. The contracts have escalation provisions in them that are not determined by what is happening in the world oil or gas markets.

Mr MILLS: That is good to hear. I understand also, the fact that we have two streams of gas coming onshore – well, eventually, with Blacktip coming in, ConocoPhillips coming in, and possibly a third - that places us in a unique position. I need to go back to a question that has always niggled me, and perhaps a number of others. Perhaps we have moved away from it now, so we can look back a little more clearly. At the time when ConocoPhillips brought gas onshore, given it is not very far across to Channel Island for gas to be taken, how is it that now we can organise to have a short pipeline across it at the same time we are building one half way across the Territory? How is it that can be sorted out now and it could not be sorted out in 2001?

Mr MACRIDES: Obviously, I cannot comment on what the negotiations were in 2001 but, in general terms, at that stage, there were a range of negotiations going on for new gas supply to Power and Water. We benefited from Alcan's deal with ENI falling through. We were, obviously, able to secure a deal with ENI.

The interconnect itself is for vastly different reasons, in the sense that the interconnector is there for insurance purposes only, so we are not actually calling upon ConocoPhillips to provide us with gas to meet our domestic gas requirements for electricity generation in the Territory. It will only be used in the event of the need for gas supply if Blacktip gas pipeline fails. It is there for a failsafe mechanism.

I really cannot comment on the negotiations that occurred way back in time in relation to ConocoPhillips. I know that one of the partners in ConocoPhillips is Santos. We have had negotiations with Santos in the past over seeing whether or not they could increase their output from the Centralian fields, and Santos walked away, basically. In fact, I believe I recall my predecessor referring to Santos as being un-Australian in a public meeting at some stage.

Mr MILLS: Thank you, Mr Macrides. Please go back to help me understand how the discussion or negotiations for the deal between ENI and Alcan falling over assisted negotiations between Power and Water and ENI?

Mr MACRIDES: It assisted negotiations because, basically, there was a willing buyer, as in Power and Water, available to sit and down and negotiate with ENI over that supply. At that stage, if Alcan's deal had proceeded, all of the gas supply out of Blacktip would have been for Alcan's requirements and there would not have been anything left over for a second party to negotiate on. The fact of the matter was that the deal fell over, therefore, we could negotiate with ENI over the full amount of gas that was available that met all our requirements for the next 23 years.

Mr MILLS: Has Alcan re-entered this area to have a supply of gas brought across?

Mr MACRIDES: I am not sure what Alcan has done. I imagine that Alcan would be looking around for a gas source, particularly given that the Emissions Trading Scheme is on the horizon in the not-too-distant future.

Mr MILLS: This is probably a dumb question but, do I understand this correctly, that there is a pipeline full of gas, and that there is a only a certain amount in there? If Power and Water lock into that and, then,

Alcan for argument's sake, say, 'Oh, we want to also plug into that and take it across to Gove', that there simply is not the capacity for two contracts to be satisfied physically?

Mr MACRIDES: I guess there are two elements to that question, Mr Mills. The first is in relation to gas supply itself, the Blacktip discovery is a one-well discovery at this stage. So, the total output from Blacktip that is associated with the certificate that is available at the moment that tells us how much gas is available, is fully committed to Power and Water's contract requirements. The first step would have to be that a third party would have to negotiate with a supplier to actually obtain gas. At the moment, with Blacktip being a one-well discovery, there is no additional gas unless they find something else.

The second element then relates to the pipeline itself, which is the distribution system for the gas. The pipeline itself was negotiated by APT with indigenous landholders, based on that pipeline being used solely for Power and Water's purposes. That is not to say that a third party cannot use that pipeline, but they would have to go back to the negotiation table with the indigenous interests to make sure that those interests are compensated for the additional use of that pipeline.

Mr MILLS: Therefore, there is an opportunity, possibly, for Power and Water to supply gas then to Alcan?

Mr MACRIDES: Unlikely at this stage, because of the volume of gas that is available.

Mr MILLS: Notwithstanding, physically, if you had another well feeding into that pipeline, which increases the volume in the pipeline, then Alcan could be supplied by Power and Water?

Mr MACRIDES: I am not sure there would be any benefit in Power and Water being engaged in that process. It would be better if ENI and Alcan, obviously, negotiate it directly.

Mr MILLS: Sure. It has been a long week and I am just getting a bit fanciful, but I thought there was an opportunity there, perhaps.

Mr PHILIP: Mr Mills, perhaps if I could add to that. There is a quantity of gas that Power and Water is contracted to buy from ENI - 120 petajoules - which, if my memory serves me well, is about enough gas to supply Alcan for three years at 40 petajoules a year. The opportunity would not be for us to supply all of Alcan's requirements. There may be an opportunity if someone else can produce enough gas to sell to Alcan for us to frontload that contract with that 120 petajoules. So, there are still commercial opportunities sitting out there, but someone needs to get the gas at the other end to put into the pipeline.

I would like to say one more thing, if I could, about the arrangements that we entered into with ENI. From the time we entered into those arrangements to the point we are at now is, in the gas world, a very short space of time. The world has moved for us, not against us, in the sense that we are very comfortable with the commercial terms we reached, both as to pricing and delivery of gas. At the moment, right around the country, you are seeing the rewriting of commercial arrangements for supply of gas. We believe we have put the Territory and the corporation in a pretty good position for the next 23 years in terms of our own gas supply.

Mr MILLS: When you say 23, that is the life of the contract?

Mr MACRIDES: That is correct.

Mr MILLS: I need to resolve one simple, physical issue; that being, if another source of gas is found out near Blacktip, can you pump that pipe up so there is enough in there for all of Darwin and all of the Territory's needs, plus enough for Alcan? Can that physically occur? Can you pump these pipes up so there is just mega capacity in there?

Mr MACRIDES: A pipeline has a limited amount of capacity, but you can do a lot of things to the pipeline to increase the capacity of the pipeline for gas to flow through. You can put a series of pumping stations and pressure reduction facilities and do all sorts of things to pump more gas through the pipeline. So, the simple answer is, yes, there are ways that you can put more gas through a pipeline if it is available.

Mr MILLS: Do not think I am going down some weird track here, it is just that I have always had difficulty working that out, because it is a question of supply. Sometimes, it is the supply from the source, it is not the capacity of that pipeline.

Mr MACRIDES: Yes.

Mr MILLS: Okay, thank you. I understand what you have just said with regards to the quality of the deal that has been struck between ENI and Power and Water. Are you able to divulge any more on that so we have a sense of the value of that deal, and compare it with other deals that may be floating around?

Mr PHILIP: I certainly do not think I am able to describe the price per gigajoule that we agreed with ENI, and the delivered price of that to Darwin. However, for example, there is a lot of talk on the eastern seaboard about coal seam methane, and that gas being supplied into LNG plants in Gladstone, I think it is. The most recent transaction I saw commented on was Petronus from Malaysia buying into Santos' gas fields at a price that effectively meant the gas price they would need to get out of the LNG plant was \$14 a gigajoule. I can say to you, that is way, way beyond what the Territory has agreed to pay.

There is a lot of pressure around the country by the producers to collectively move domestic pricing towards LNG pricing. That is the game that is being played now on the east coast particularly, by effectively saying all the gas has gone for LNG, and domestic pricings are going to have to move upwards. In that whole scheme of things, coupled with the fact that since the time we contracted there have been massive increases in inputs, steel, people – everything - the cost of delivering projects now is at least 50% higher than what it was when we contracted to buy ENI gas. I am confident in asserting that our arrangements will be seen in the Australian context to be very good, solid commercial arrangements as we move forward over the next 20 years.

Mr MILLS: Perhaps another naïve question but, why are these prices secret? If you go to the Mindil Beach markets and walk around with something you have just bought, you do not say, 'I am not telling anybody how much I bought this bag of mangoes for'. How is it in this industry these prices are secret? Surely, people know. Does no one know how good the deal is that you got?

Mr PHILIP: Generally, only the one or two parties that are party to the agreement. I have heard a fellow in Western Australia with the Burrup Ammonia Plant boasting of his arrangements. He has been happy to go around saying he got gas from Apache Energy for \$1 per gigajoule. He is trying to float a company to raise \$500m. I cannot tell you why, but the companies are very secretive, very ferocious competitors with each other and, more particularly, ferocious with their customers. We have a range of commercial-in-confidence and confidentiality obligations in our commercial agreements.

Mr MILLS: Well then, it leads to the obvious question: how is it then that you know that it is a good deal? If you do not know the price of anyone else's deal, how do you know you have a good deal? How do taxpayers know they have a good deal? Is it like trust us, they said it was a really good deal. Everyone else might have an even better deal, but you do not know, it is secret.

Mr PHILIP: It is more than anecdotal. You might recall that, recently in Western Australia, I think it was Western Power or one of the utilities there, was forced to contract to buy gas - not as a result of the explosion on Varanus Island. There was some controversy with the minister for Energy at the time, and they ended up buying gas at \$17 per gigajoule. There is no doubt that it was generally accepted that, in Western Australia, Victoria, and most of the eastern seaboard, the gas prices per gigajoule range between \$3 to \$5 per gigajoule in the last lot of contracts. The new contracts coming through are clearly pushing well beyond that - there is no doubt.

Mr MILLS: I trust you. I have a sense that you are right, but it is like 'that bloke told me I got a really good deal', until you go and find out. Mr Wood, did you want to ask some questions?

Mr WOOD: On gas? I have plenty of questions.

Mr MILLS: I have been called away.

Mr WOOD: I am the stand-in or understudy. My questions might not be quite the same. One is about gas. I gather either you or the government is building a pipeline from Wickham Point to one of the power stations. Could you explain which power station, what is that pipeline for and, could I ask again, what sort of deal you are getting on gas for that powerhouse?

Mr MACRIDES: The pipeline is actually an interconnect between our pipelines through to Weddell and Channel Island, and then the main pipeline itself through to the ConocoPhillips plant at Wickham Point. The reason we have negotiated with ConocoPhillips on an interconnect and a gas supply agreement is that we wanted to ensure that we had redundancy in our gas supply system. Mr Mills mentioned earlier the

situation in Western Australia at the moment. At the moment, we have a failsafe mechanism for continuation of electricity supply, which is dual fuel capacity in all our generators, so we can burn diesel if we have catastrophic gas failure. However, clearly, the best thing to do is to continue to use gas supplies. We have negotiated with ConocoPhillips an interconnect for emergency purposes. If, for any reason, we lose gas supply from Blacktip, we can call upon ConocoPhillips for periods of time to provide us with all our gas requirements via this interconnect. It is an 11 km interconnect between, as I said, the Wickham Point station and our City Gate station.

Mr WOOD: Who is paying for that pipeline?

Mr MACRIDES: There are two elements to the arrangement. The first element is a 2 km pipeline within the boundaries of the Wickham Point plant itself. We will pay for that component of the pipeline and, ultimately, we will gift it to ConocoPhillips, who will then be responsible for the ongoing maintenance of that pipeline. Then there is a 9 km section outside the Wickham Point boundary through to City Gate. That 9 km pipeline is being constructed by Australian Pipeline Group under a normal build, own, operate arrangement. They will pay for it, and we will, obviously, over time, pay for it in the context of a fixed charge and a variable charge for energy use, which is a standard process throughout Australia for gas pipelines.

Mr WOOD: Roughly what will it cost?

Mr MACRIDES: We are still in the process of negotiating the pricing for it but, as the Chairman mentioned earlier, what we are finding is that raw materials are going through the roof. It could be anything up to \$35m.

Mr WOOD: Will that be above ground or below ground, because it is coming through all that mangrove country?

Mr MACRIDES: All pipelines are buried but, going through the mangrove country, it will be directional boring, whereas the conventional pipeline process is simply to dig a tunnel, put the pipeline in and cover it over. That will be the vast majority of the work that is done, but there will be some directional boring which will be required under some of the mangroves.

Mr WOOD: Will LNG go into the existing pipeline to Channel Island?

Mr MACRIDES: If necessary. It is connected so that we can supply all of the Territory's needs, so it is actually an interconnect back into the main pipeline so we can provide Channel Island, our power stations at Channel Island, as well as at Weddell, as well as funnel it back down the system if necessary.

Mr WOOD: And you will make sure that the taps are turned on the right way, otherwise Amadeus or Blacktip will be supplying ConocoPhillips with gas and messing up the LNG.

Mr MACRIDES: Yes, I do not think that will be an issue.

Mr WOOD: Oh, that is all right, I have done it with water. In relation to running those power houses, of course, you have been using diesel. Are you still using diesel? Have you any idea how much diesel it cost you over the last – well, up to, say, now in this financial year?

Mr MACRIDES: Sure. There have been a number of reasons why we have been using diesel at Channel Island. The first, obviously, has been the media coverage over the Amadeus Basin gas reserves being in decline and actually falling away at a greater rate than we had anticipated - that anybody had anticipated. On top of that, there has been a significant increase in demand for electricity, just simply because of the hot weather that was experienced, particularly over the September/October period last year. We have had a combination of factors that have led us to burn more diesel than we would normally have burned in a normal year. I think we burnt about 21 million megalitres of diesel somewhere between September and April. We are not currently burning diesel, because the weather has cooled off and we are not having problems with the gas coming out of the Central Australian field at the moment.

To answer your question, as at the end of May, our year to date budget for diesel was \$9.8m and we had spent \$24.2m. Based on that full-year forecast, we expect to spend \$31.2m on diesel against a budget of \$10.1m. Having said that, though, it is not a dollar-for-dollar situation because, obviously, if you are not using the amount of gas that you were contracted to use and you built into your budget, there is a savings associated with the gas that is not being used because it is variable pricing. What we have found with the Central Australian field has been that there are two sources of gas down there - Mereenie and Palm Valley.

The contractual arrangements are very complex, but the contractual arrangements for those fields are different. Palm Valley gas is slightly cheaper than Mereenie gas. The Palm Valley field has actually been overproducing, whereas the Mereenie field has been under-producing. The nett impact of that has been that our average price of gas has come down, so you have a lesser usage of gas itself, a cheaper price for gas, and then an increase in revenue associated with this increasing demand in electricity that has offset this increase in diesel costs. So the nett impact on us is probably in the order of about \$3m to \$5m only.

Mr WOOD: And that would be at a loss, because you have to go over to diesel?

Mr MACRIDES: Yes, it will be off our bottom line. A small price to pay to keep the lights on.

Mr WOOD: Well, do you have any influence on planning? I know this is slightly moving away from what we were just dealing with but, one of the reasons we are getting more and more requirement for power is, you just have to look out the door here, you have concrete boxes with airconditioning now. Does your department have any input into whether we can change our hunger for energy by using airconditioners and building designs? You have a section in here on saving energy. I was washing a bus with one of your good gentlemen at the back there, saying it is a green environment. Yet, you would have been creating a substantial amount of greenhouse gas by using diesel, because we are using more energy. Do you have any input into government about ways in which we can change this?

Mr MACRIDES: Certainly, every opportunity that arises, we raise the issue of the need for there to be a bit more sustainable design principles embedded into future developments. However, we are a business like any other business, we are not a government agency and we are not a regulator. But, as I said, we do, wherever we get the opportunity, raise the issue with government in the context of the regulatory regime that exists out there.

Mr WOOD: I will check with the Chairman. Member for Blain, do you want me to keep going?

Mr MILLS: Yes, that is all right.

Mr WOOD: Good.

Mr MILLS: You are on a roll.

Mr WOOD: With the pipeline to Amadeus and Palm Valley now, is that owned by - what is it called? - NT Gas - is it? - the people that have an office in Palmerston? What will happen when that pipe has finished producing gas? Will someone take it over?

Mr MACRIDES: Yes. It is actually owned by a consortium of banks at the moment. It is a pipeline trust, basically. What will happen at the end of the life of the pipeline trust is, the trust has the right to purchase the pipeline for a residual amount, whatever that might be. At the end of the day, I am sure they will exercise their right to purchase the pipeline, and life will go on in terms of the availability of that pipeline for carrying gas.

Mr WOOD: Will you be looking at using that pipeline, either for sending gas south or, as was mentioned in here yesterday, the possibility of trying to get gas out to some of these remote communities for their powerhouses?

Mr MACRIDES: We are, obviously, going to continue to use the pipeline for sending gas south. There is also an opportunity under the existing contracts from Central Australia for us to continue to use some gas out of the Central Australian fields that fire our power stations in Central Australia for a limited period of time because of the contractual relationships that exist. So, the pipeline will still get used.

In relation to the issue of diesel substitution and doing something about reducing diesel usage in indigenous communities, we are actually in the process of developing a strategy for looking at energy supply into indigenous communities and, where it makes sense commercially, effectively, we will be looking at putting spur lines into some communities, as well as perhaps transmission grids into some communities. The additional gas gives us that opportunity, as does the fact that ENI will have a large plant at Wadeye. There is an opportunity for us, and we are in the process of talking to ENI about purchasing electricity from their power station at Wadeye and putting some grid connections in.

Mr WOOD: Interesting. This might be a difficult question, but electricity versus a pipeline spur - is there a vast difference in cost, do you know?

Mr MACRIDES: There would be. The location of the community is what will drive that. The location load within the community will determine whether or not it is more economically feasible to connect them up to gas supply or to put a transmission line in. Obviously, the other element that we are looking at is continuing to roll out the solar energy in a number of indigenous communities where it makes sense again to do so.

Mr WOOD: I have asked this question of another department before. In relation to solar energy, you partly do it to offset diesel costs, and you probably do it also to reduce greenhouse gas emissions. However, do you actually look at the total greenhouse gas emissions from the point of view of the manufacturing of the solar panels and the delivery of them, versus the savings you would get from solar electricity versus diesel - a whole-of-production approach?

Mr MACRIDES: Absolutely. When we look at any of these decisions, we look at from a commercial perspective. We take into account a complex range of factors that determine whether or not you strike a commercial deal to either supply, via transmission lines, gas or solar panels or solar dishes. All of those issues are taken into account because, when you put solar into a community, you have the benefit of the Renewable Energy Certificates that arise from the output of the solar dishes or solar arrays that go into communities. You then, obviously, have the reduction in greenhouse gases and the diesel lopping element associated with the reduction in the amount of diesel. We keep very good data on what each of the locations means in the reduction in greenhouse gas emissions, because we know, essentially, how much diesel is being saved in these communities. We do take into account all those things that you just mentioned when we make a decision.

Mr WOOD: Do you do any research and development yourselves, or that is not part of your work?

Mr MACRIDES: It would be nice for us to be able to do some R&D. At the moment, it is very limited. Generally, we rely upon what is happening in the marketplace. We have a number of very good engineers within Power and Water who keep an eye on what is happening in the marketplace, particularly in the renewable energy sphere, and what is contemporary out there. But, we do very little R&D in-house.

Mr WOOD: I got an answer to a question I asked, that it was a private development. When I was in Epanarra last year, there is a large windmill sitting there collecting cobwebs. Does that wind generator have anything to do with Power and Water at all, because it is right next to your Epanarra power station? Do you know why it is standing still?

Mr MACRIDES: It had something to do with Power and Water a long time ago. It is a commercially-owned windmill. We do not own it, a private company owns it. My understanding is that that windmill has been out of production for a long time now. What we are doing as part of the refreshing of our own renewable energy strategy, as well as the work that we are doing in relation to how we can save diesel usage within the indigenous communities, is to actually do some work on wind, particularly around the Barkly regions. We have been doing a fair bit of wind monitoring out there. At some stage, when we collect all that data and analyse it, we may go to the marketplace with a request for a wind solution for Tennant Creek and Epanarra. We are probably another six months away from having finalised our review of our renewable energy road map.

Mr WOOD: Do you know who owns the windmill? Is there someone I can contact and say, well ...

Mr MACRIDES: I understand it was owned by a company called AES. I am not sure whether that company is still in existence or not, or whether they have sold the asset to somebody else. I do not know.

Mr WOOD: Okay. It is a strange site, because you come across all this semi-desert area and there is a huge windmill sitting there ...

Mr MACRIDES: I think that was part of the problem.

Mr WOOD: ... and there is a diesel generator pumping away next door.

Mr MACRIDES: It was very old technology and too large for what was required out there. I believe they had problems with their control systems. There was a litany of problems associated with it.

Mr WOOD: What other forms of the energy do you use? You would have methane that comes into your grid from landfill. What sort of percentage would you get back from methane?

Mr MACRIDES: The methane gas generator at Shoal Bay produces about a megawatt a year. That is actually a very small component of our overall demand in Darwin/Katherine. I believe Darwin/Katherine's peak demand gets up to about 280 MW on a daily basis - so you can do the math. We are in the process of talking to the LMS people, the landfill people themselves, about whether or not there is an opportunity to increase the size of that power plant there. Increasing will only probably only be doubling it - 2 MW - but that is better than nothing.

Mr WOOD: Is it a viable thing to do? If it is only 1 MW a year and it costs a couple of hundred thousand dollars to build, it might be nice, sounds good, but is there a commerciality factor in there?

Mr MACRIDES: I assume that is a decision they will make. All we have with them is a power purchase agreement. They own the asset, they provide us with electricity that is generated by the asset itself, so that is something that they will consider in time. Having said that, it is an incredibly reliable power station. Every day it produces a megawatt, 365 days a year, without any breakdowns.

Mr WOOD: Does Alice Springs have one too?

Mr MACRIDES: No. I think it has to do with the different loads and the climatic conditions up here.

Mr WOOD: I am getting back to a LNG question I meant to ask. How does the LNG run in the motors? No problem at all, compared to using natural gas from Blacktip, is that right?

Mr MACRIDES: It requires some modification to the generation plant itself. Engines operate on diesel, straight gas, LNG and compressed natural gas without any significant problems - just some slight engineering modifications are required.

Mr WOOD: You can claim no CO₂ emissions. It is done next door.

Mr MACRIDES: I am not the engineer, sorry.

Mr WOOD: You are getting clean gas, that is what you are really getting, aren't you?

Mr MACRIDES: Yes.

Mr WOOD: I get rung up every now and then from people living out in rural area, and it is usually about the cost of connecting the power. Are there some guidelines to what the rules are for what you call the Distribution System Extension Policy? I will have a person up the road who says: 'I have been told \$5000', and there will be another person who seems to be just down the road who says: 'No, they told me \$15 000'. Is there a set of guidelines that is publicly available for us politicians who sometimes have to explain this to constituents?

Mr MACRIDES: Yes, absolutely, and it is actually available on our website. We are happy to make a copy available to you, Mr Wood. The charges vary, depending on the nature of the connection itself and whether someone is after single-phase power or three-phase power, and the actual cost of augmenting our power supply systems out there. That determines how much, at the end of the day, somebody will have to pay.

Mr CHAIRMAN: Could I ask for all mobiles phones to be switched off, please.

Mr WOOD: The question I have, which is probably fairly specific - and somebody might have had a phone call about it just then - was that I was asked to find out, in this case, about a charge that Power and Water were requesting a developer on a childcare centre. The word I had is that Power and Water wanted a fire hydrant in it, which was going to cost \$200 000, and it was to be charged to this one particular facility that was going to be built. Part of the reason was that there is a whole lot of shops in that area, therefore, you need to upgrade the system, therefore they will pay the \$200 000 which, of course, will benefit everyone else in the area. Is there an unfairness in that? I am not saying that things do not need upgrading, but is there a better way that can be done where the costs can be shared, rather than just line up the developer because the time has come for an upgrade in the system?

Mr MACRIDES: The development codes that we operate under are fairly standard Australia-wide in relation to commercial developments. Essentially, what happens is that the developer who comes to us and is in the position of having to request supply that we cannot meet because we have to upgrade our assets - whether it be water or electricity supply - at the end of the day, gets stuck with the bill for the totality

of that supply upgrade, even though there might be others that will benefit from it in the long run. The simple answer is: I am sure there is a fairer way of doing it; however, the existing regulatory regime does not allow that at present. That is not to say that we do not constantly review our connection codes. In fact, in relation to both the water and sewerage connection codes, we are in the process of doing that now. Hopefully, we will have that review completed by the end of the calendar year. I am surprised at the cost associated with that particular incident you have just quoted.

Mr WOOD: That is what I have been quoted. It could make or break the developer, that is the only thing.

Mr MACRIDES: For that cost, it would have to be more than just putting in a fire hydrant. I imagine that what is required is an upgrade to the actual water distribution system.

Mr WOOD: Where he is, is about 3 km or 4 km from the Whitewood Road water tower. I could not expect the developer to have to dig up the entire length of Whitewood Road. That is a government thing; that is an upgrade of infrastructure.

Mr MACRIDES: I cannot, obviously, comment on the individual case, but I would be happy to talk to you about it afterwards.

Mr WOOD: It is a five-acre block. He could probably put a bore down the end and say that will do, I do not know. It would be cheaper than the fire hydrant; that is the funny thing. It seems to me that there should be a better way if infrastructure is to be upgraded, because he is not the only one who will benefit from that. Power and Water will, obviously, benefit, because they get upgraded infrastructure. Whether there needs to be a little give and take there, I do not know.

Mr MACRIDES: I suspect the way the regulatory regime has evolved over time is that you get a developer coming to you that actually requires a supply augmentation to meet their own development and there may not be any further development needed for many years. I presume that is why the regime has been established the way it is. We are not going to pay \$1m to upgrade supply to a commercial development on the basis that five years, 10 years or 15 years down the track there may be other people who want to connect up to that system, and we can recover the money from them 10 or 15 years down the track.

Mr WOOD: That leads me to a question I have in relation to that. Where do you draw the line between the responsibility of Power and Water to provide infrastructure, and the responsibility of the government or a developer to provide infrastructure? Are there clear cut guidelines to say 'That is our responsibility'?

Mr MACRIDES: There are. A commercial development is very clear cut and, in the case of rural and urban developments in the domestic area, they are clear cut as well. I will provide you with a copy of the guidelines, Mr Wood, because the guidelines do indicate what circumstances trigger the need for somebody - whether it be any developer - to pay for upgrades.

Mr WOOD: I will keep going, if that is all right?

Mrs MILLER: You can keep going. I have some myself, but you can keep going. He loves it, he is on a roll now.

Mr WOOD: Yes, I know, thanks. In relation to water, can you give us an update of the extensions of the height of the spillway at the Darwin River Dam?

Mr MACRIDES: Proceeding apace, actually. We have completed all of our preliminary design work and all of our work associated with clearances. We are still in discussions with traditional owners. We would anticipate that, certainly by the end of this calendar year, a number of contracts will be let in relation to upgrading of the dam wall height. Unfortunately, it is not a simple matter of just putting up some structures, and backing in a truck and spraying some concrete around; it does take a fair amount of time. We have actually engaged the Snowy River Electricity Company, who are Australian leaders in this space, to do the final designs for the upgrade. Then, we will use a series of panel contractors to do some of the civil works, and we will go out to the marketplace with a public tender for some other elements of the work.

Mr WOOD: When do you expect that wall to be completed?

Mr MACRIDES: We were looking at construction next Dry Season.

Mr WOOD: Are there any environmental issues in relation to raising the height?

Mr MACRIDES: That was part of the process we had to go through. We had to go through both sacred sites clearances, heritage clearances and environmental clearances. My understanding is that we have now completed all those processes, because one of the things you have to do is a fair bit of modelling to look at what the inundation areas are in raising the height of the wall. All of that process, as I understand it, is now complete, so there are no impediments to doing that.

Mr WOOD: When you do raise it 2 m ...

Mr MACRIDES: 1.3 m.

Mr WOOD: 1.3 m, sorry. I must have been thinking of the wave pool. I will not mention the wave pool.

Are there any issues in relation to existing vegetation? I gather, if you are building a dam from scratch, you actually clear out most of the trees and remove a lot of that material. Do you have to do anything like that when you actually raise it around the edge?

Mr MACRIDES: Not that I am aware of. It is, basically, inundation. It is just like a flood zone, so the existing vegetation gets inundated in the event that it rains and the water spreads out.

Mr WOOD: I thought it would die; I did not know if that was a problem with vegetation rotting away.

Mr MACRIDES: It may be in relation to the type of vegetation and what it does. They are in the process of doing all the design work at the moment and, I guess, this will be part of that as well. My understanding, as I said, is that all the clearances are now complete. We know that it is possible to do it, we know what the impact of doing it is and, with environmental, heritage and sacred sites clearances, there will be a bit of work that needs to be done in some areas, moving a few things and what have you, but nothing significant.

Mr WOOD: And wall safety? We will not be washing all the farmers in Darwin River away?

Mr MACRIDES: I hope not. That is, obviously, why we have been keen to engage SMEC ...

Mr WOOD: Who is SMEC?

Mr MACRIDES: They are the Snowy Mountains people, they are experts and world leaders in this field. One of the other things we did was appoint an expert panel to advise us on this process itself. This expert panel is made up of experts in the field of engineering, science, and other fields, just to make sure that we get the steps right and that what we are doing makes sense, so that we have a third party process that can review what we are doing all the way through.

Mr WOOD: What about residents in the area? Was there any discussion in relation to what was happening upstream from them?

Mr MACRIDES: My understanding is there has been widespread public consultation on the issue and, as I said, the area that is still outstanding is further negotiations with traditional owners, and that is occurring.

Mr WOOD: Manton Dam, of course, is next door. Is that going to be raised as well, or are you going to pump water out of there? Or are you going to do what I think you were originally looking at, which was damming off one of the fingers of the dam?

Mr MACRIDES: In relation to further water sources for Darwin, there are a whole lot of things that we are in the process of considering at the moment. All of them are complex and interrelated. What we are doing with Manton Dam is actually looking at the feasibility of bringing Manton Dam back online as a water source. Manton Dam has not been used in 20-plus years, as I understand it, to supply potable water. Over the course of this Dry Season, we have worked with the regulatory regime to release water from Manton Dam and do a series of sampling on the water quality to just see what happens when we draw down our approved allocation from that dam, and what impact it has on water quality.

Our initial thinking is that, obviously, Manton Dam, because of its recreational use, will require a treatment facility for us to bring it back online. The question is: what size treatment facility is going to be

required? That is what this release of water over the course of this Dry Season is designed to determine. It could be anything up to a \$50m water treatment facility to bring Manton Dam back online. But we will not know that until we go through this process of releasing water from the dam into the river and just seeing what impact it has on water quality.

Mr WOOD: Will it be used for drinking between Manton Dam and McMinns pumping station, or will it only be allowed to be drunk after it has been mixed with the Darwin River Dam water?

Mr MACRIDES: All the water goes into McMinns pumping station and is treated with both chlorine and fluoride, so it will be blended. What we are aiming for, obviously, is a potable water supply from that source itself that is fit for drinking so it does not have to be blended in order to make it potable.

Mr WOOD: What would happen to all the people who live along the highway who use the existing old main? Would they get a different quality of water?

Mr MACRIDES: No, that was the comment that I just made about the need for a treatment facility, because the water coming out of that dam has to be potable, it has to be drinkable - you do not want to blend it to make it drinkable. So, the question is: what extent of treatment is required to do that?

Mr WOOD: People are presently getting water from the old World War II pipeline. That is water coming back from McMinn, it is not coming from Manton Dam? If you live at Livingstone, for instance, and there are lots of people connected to the line there, where is the source of their drinking water?

Mr MACRIDES: Just bear with me a minute. It comes back from McMinns and will continue to do that. So it goes to McMinns, chlorine is added as a primary barrier for treatment, and the supply chain is back via McMinns.

Mr WOOD: The last of my dam questions. Is the Warrai dam getting any closer to happening, or is it still, basically, wait and see how Manton Dam and what effect raising the level has before you make a decision?

Mr MACRIDES: As I said, we are still considering a range of source options for the ongoing augmentation of Darwin's water supply. Warrai is one of those that is still very actively being considered. We would like to be in a position to, obviously, ensure that we have all of the necessary clearances in place for the construction of a new dam - whether it be Warrai, Marrakai or Mt Bennet, depending on which site ultimately is chosen. Although Warrai seems to be the location that we see as the most favourable. Our preference, though, would be not to have to build a \$150m or \$200m dam if we can do something about demand growth in Darwin itself and delay the need for the construction of such a significant project. Having said that, obviously, we want to be in a position to do that if we start to see that that construction is inevitable.

Mr WOOD: The other area was that you are looking at using more of the Howard East bore field. In my spare time, I am reading the Statement of Corporate Intent, and it says: 'Last year's Statement of Corporate Intent included plans to extend the licensed groundwater extraction from the Howard East bore field to provide additional capacity and maintain diversity of emergency water supply. It now appears unlikely that the Controller of Water Resources will approve this application in sufficient time, if at all'. So, does that mean it looks like you will not be allowed to pump water out of Howard East bore field?

Mr MACRIDES: That could well be the end consequence. That is the reason why we are proceeding with the Manton Dam option and reviewing that; because we know that we have to supplement Darwin's water supply from somewhere. If, at the end of the day, we are not granted an increase in our extraction licence from Howard East, then the easiest way of providing that supply is via Manton Dam. Having said that, though, it is still a bit of a double-edged sword for us in the sense that, having all of your supply sources being above ground is problematic for us. One of the benefits of having bore water is that it is, basically, totally protected because it is an underground water source. If anything happened to Darwin River Dam, or Manton Dam, if we bring Manton Dam back online, then the only option for us is Howard East bore field. That is, as I said, a double-edged sword for us. I keep saying that we are the only licensed extractor from that bore field. NRETA's view of the world is that, at the moment, we only extract 15% of the total amount of water that is extracted from that bore field. That means that 85% is extracted by others, unmetered.

Mr PHILIP: Could I add to that? It has been a bit of a source of frustration, in the sense that we have poured resources and time, as we have tried to demonstrate at succeeding appearances before the

committee, in terms of our planning to continue with extraction from the Howard East bore field. The revisiting of the Manton Dam subject might seem sudden, but it has become quite necessary for us, as we face these restrictions and the bulk of the users continue to be able to use it unabated. It has been a source of frustration, but it is not a thing that we can allow to slow us down. It is pointing towards us having to spend lots of money to bring Manton Dam back into service.

Mr WOOD: I understand, because I am one of those unmetered people who use the water, although the government has a number on my bore which says, hopefully, one day they will put a meter on there to see how much water I do use. I do not know at what stage that program is. My understanding of the research they are doing into the water at the moment is that it could also stop any more bores being drilled - that is, domestic bores as well. So, although I know it restricts you, it has a lot to do with the environmental impacts of removing more water from the Howard East bore field.

Yes, it was the first I had heard of it, too, because I recently went to a seminar at Charles Darwin University to discuss some water usage in the Howard River catchment. There was no mention that they were looking at putting controls on yourself, because you said you already have a licence to extract a certain amount and you do not extract that presently anyway.

Mr MACRIDES: That is right.

Mr WOOD: Yes, it makes for some interesting thinking. It is a case of, watch this space, I think, at the moment. The other area I was going to ask you about was sewerage. What is the latest on what they call the 'poo shooter'? What is its life span? If we do move sewage to Ludmilla, is that being upgraded, or are we simply moving sewage from point A to point B because the capacity of Ludmilla is limited?

Mr MACRIDES: We are still on track to close the Larrakeyah outfall by 2011. As we have said on a number of occasions, there is a series of things that need to be done to achieve that. One is the diversion of the sewerage outflow itself from Larrakeyah over to Frances Bay; an upgrade to the treatment plant at Fannie Bay; as well as a lengthening of and an upgrade of the existing pipeline at Fannie Bay at East Point. All of those processes are occurring at the moment. There is a series of work being done on the route, and survey work being done on the route itself, so that we can go out to tender in the not-too-distant future for the actual diversion tunnelling to occur. There is a series of work being done on upgrading the treatment facility. There has been a major amount of work done on modelling of the outfall at East Point and the extent that that outfall will need to be lengthened, and in what direction it needs to be lengthened, etcetera.

Mr WOOD: I am asking because the noise about the poo shooter at Larrakeyah was that we did not want raw sewage going into the harbour. Is it the case that the volume of raw sewage that is presently going out at Larrakeyah is simply going to eventually end up at East Point? I know some will get treated, but I gather there are limitations on what can be treated. We know that raw sewage goes into the sea at Ludmilla when the Wet Season comes. So, are we simply moving the issue further – I cannot say upstream - downstream, or are we actually going to treat more volume of sewage than we are presently?

Mr MACRIDES: The Larrakeyah outfall at the moment discharges untreated sewage. What happens at the Larrakeyah outfall is that the sewage that goes through it is macerated, so chewed up, and it is untreated sewage that is discharged into the harbour. In the case of the East Point outfall and the diversion of the Larrakeyah outfall itself, it will be treated sewage going into the harbour. We have been very clear on the public record as saying that closing outfalls down in their totality is impossible for Power and Water. At the moment, there are five outfalls in Darwin, and diverting the Larrakeyah outfall will simply mean that the outfall itself will be closed. The discharges from that outfall will be diverted to the East Point outfall, but the big difference is that, instead of it being untreated sewage that is being discharged, it will be treated sewage being discharged.

Mr WOOD: Staying on sewerage for a minute, we have a huge number of buildings being built in Darwin. There was an upgrade of the sewerage line around the Duck Pond some years ago. Where is the input into upgrading, say, water and electricity and, perhaps, even more sewerage, when these big buildings keep being built? It just seems to be non-stop units being put up everywhere. To tack on to that, where does the developer's responsibility to upgrade start, and where does your responsibility to upgrade the services start?

Mr MACRIDES: In parallel with the work that we are doing on the closure of the Larrakeyah outfall, we are actually reviewing the total Darwin sewerage situation. At this stage, we are hopeful that, over the next 18 months to two years, we will have developed a Darwin regional sewer strategy in conjunction with the regulator. At the moment, there is a lot of work being done by the regulator on Darwin Harbour and what is

happening in terms of aquatic life within Darwin Harbour. We are working with the regulator on that. We are looking at what we need to do by way of sewage treatment for all of Darwin, given that Darwin is going through this growth spurt.

In terms of where the boundaries are between the upgrade work that we do and the upgrade work that a developer does, I guess – I do not know whether to say whether it is upstream or downstream - ultimately, the treatment plants themselves and the actual flow of sewage into those treatment plants and any upgrades that are required to cope with increased volumes are a matter for us. However, the headworks themselves - so if there needs to be an upgrade of sewerage pipes and trunk sewers and stuff because a development is going up and the existing infrastructure cannot cope with the volume that is coming out of that development - the developer is responsible for paying for that upgrade. They are also responsible for paying for that upgrade for water as well. The same situation applies with water.

Mr WOOD: Say you have that main sewerage pipe out here, which I presume is pretty big, it would have a capacity - and someone would have worked out, I suppose, what the capacity would be. Can you give us any idea of the capacity of that pipe? I do not know whether it is done in so many toilets, if I can put it that way, but, basically, say for every house there is one or two toilets. Once you get up to 10 000 units or 10 000 whatever, the pipeline has reached its capacity and we need to upgrade. Is there some sort of calculation that says no more units until there is a major upgrade?

Mr MACRIDES: Part of our responsibility is, obviously, planning for our own infrastructure upgrades. We do that on the basis of projected population growths and just simply what is happening out there in terms of the impact of development on our infrastructure - be it electricity, water or sewerage infrastructure. We constantly monitor what is happening. As we have said, over the last decade, we have invested a significant amount of money in upgrading our sewer systems. In fact, something in the order of \$14m-plus has been invested so far in putting in new trunk sewers in Mitchell Street, along Tiger Brennan etcetera - all to cope with demand growth over time.

We are confident that the infrastructure we have in place at the moment can cater for the level of demand growth that is occurring out here. In terms of the capacity to move sewage to treatment facilities, the area for us, though, that we need to do work on - hence the Darwin Sewer Strategy - is the treatment facilities themselves and the need for upgrading of those treatment facilities to cope with the amount of waste that is coming back into those facilities.

Mr WOOD: All right. The member for Blain is back. I have done my bit.

Mr MILLS: You have done very well, I believe.

Mr WOOD: Thank you.

Mr MILLS: This is very informative. If I can go back to that gas story of the gas and the pipe. Did I understand correctly? The source, plus the capacity in that pipeline; there is a portion of that that is required for Power and Water's use, but there is a component - I thought you said 14% or something like that - that could be used for other purposes?

Mr MACRIDES: The arrangement we have in place with ENI is for the supply of the base level of gas that meets our requirements for electricity generation over the next 23 to 25 years. We know that the amount that we require is a known reserve, so there is the amount of gas available out of Blacktip to supply our requirements over that 23 to 25 years for electricity generation. On top of that, we also negotiated with ENI for a component of gas which is over and above what we require for our own generation requirements. At the moment, that is 120 petajoules, which is a significant amount of gas. That gas is available for us to use in a number of ways.

One is, we have talked previously about the use of diesel generation in indigenous communities and the fact that we are actually going through a process at the moment developing a plan for looking at how we can reduce diesel usage in these indigenous communities. Some of this additional gas we will put towards the conversion of power stations in some indigenous communities to gas, and this 120 petajoules of additional gas allows us that capacity. It also allows us the capacity to on-sell to other domestic users if they require additional gas.

So, the answer to your question is, there is an additional gas capacity that is available to us. I have to caution, though, that the 120 petajoules is probable reserve, not known reserve. All indications are that it is

probably 99% certain that 120 petajoules is available, but it is at this stage only in the probable category. That 120 petajoules is available to us to on-sell as necessary.

As the Chairman mentioned earlier, in the case of, say, Alcan, we have the capacity to provide them with some gas, but it cannot meet their ongoing needs on a longer-term basis. It is a very small amount and will only meet their requirements for a short period of time. They have to have in place, obviously, a contract that meets their longer-term requirements.

As I mentioned earlier, in relation to the pipeline itself, the pipeline capacity is not so much an issue for us. The pipeline can handle a significant amount of gas going through it, and there is a range of tricks that you can put in place to push more gas through that pipeline. If there was an additional gas find out in Blacktip, and ENI negotiated with Alcan for the supply of gas to Alcan based on that additional gas find there, ENI and Alcan would have to negotiate with the traditional owners over the use of that pipeline because, at the moment, the payment associated with that pipeline, given that it is on indigenous land, is only based on our usage of that pipeline, not additional gas going through it.

Mr MILLS: That is why I thought it would be a good deal that Alcan deals with you, because you would be then selling it on to Alcan. But, that is a story for another day.

Mr MACRIDES: It is, and I guess the problem, though, as I keep getting back to, is that the amount of additional gas that is available to us is very small compared to what Alcan's requirements are. They would not convert to gas-fired generation on the basis of us only being able to provide them with gas for three, four or five years.

Mr PHILIP: If I can add one thing to that; that is, that the Aboriginal groups will likely have a 10% equity interest in the pipeline itself, so they would be a co-owner along with Australian Pipeline Trust. There is an incentive on them to have more gas go through the pipeline, or as much gas to go through as possible.

Mr MILLS: Okay. So it is not the pipeline, it is the pipeline plus what goes through that pipeline?

Mr PHILIP: Yes.

Mr MILLS: The 120 petajoules; if there is a large manufacturing operation in an industrial area in Darwin, out at East Arm for example, do they come and negotiate with Power and Water if they need additional gas? Is that how it works? If that is the case, the price that you would negotiate with them; do you have any obligations with regards to the price at which you purchased it?

Mr MACRIDES: There would be two elements to that. One is, they can negotiate with us for the supply of electricity, so we would provide them with the electricity requirements to meet their demand. Or, alternatively, they might look at self-generation and they might want gas from us for self-generation purposes. In either case, it would be a straight commercial arrangement, which would be based on a range of factors associated with their demand requirements. There is, obviously, a minimum amount of money we have to pay under the contract for that additional gas and, clearly, we would be recovering our costs at a minimum. But, it is a commercial transaction.

Mr MILLS: Good. Are you in the market to supply gas to large industry in the Territory? What size would that industry be? I am not sure how big that is, but what size operation could be run by 120 petajoules, for argument's sake?

Mr MACRIDES: To put 120 petajoules into context, our annual demand for gas to provide all of the Northern Territory is in the order of 20 to 30 petajoules.

Mr MILLS: Your annual?

Mr MACRIDES: Our annual demand to provide all of the Northern Territory with electricity is 20 to 30 petajoules.

Mr MILLS: Right.

Mr MACRIDES: That is what we require to provide electricity supply to all of the Northern Territory.

Mr MILLS: This is very interesting.

Mr MACRIDES: To answer your question though, the answer is, yes, there is an opportunity for us to negotiate the sale of gas to third parties, but only once we are satisfied that 120 petajoules is available. What we are not doing at the moment is promoting the availability of that gas prematurely, because our priority at the moment is the Blacktip pipeline and ENI's production plant and supply of gas to us on 1 January 2009 and, then, worrying about downstream industries and our capacity to negotiate with downstream industries on gas supply.

Mr MILLS: I am glad I have asked this line of questioning. That is really quite exciting, having that additional stream coming in, potentially being available to stimulate local operations.

Therefore, I understand Arafura Resources has an interest in setting up in the Territory. Their concern is power. In dealing with that concern, do they talk to Power and Water? At what level do these concerns become tested? Is it just with the Chief Minister's Department, or do they come through and talk to Power and Water and try to find a way through?

Mr MACRIDES: Absolutely, they come to us. As I said, these are straight commercial transactions, so any new major developer in the Territory comes and sits down with us and talks to us about what their requirements are. There have been ongoing negotiations and discussions with Arafura over their requirements. I must say, they do not just come and talk to us about electricity or gas supply, but also water supply. Arafura is a mining operation that would be heavily dependent upon water as part of their mining operations and, obviously, they have spoken to us about water supply as well. We sit down and talk to these people on a daily basis. Within Power and Water, it is done by a team, generally headed by our General Manager Retail. He puts together a team of experts within Power and Water that sits down and negotiates with customers on what their requirements are.

Mr MILLS: So, this whole area, Mr Macrides, could end up being, with potentially 120 petajoules, of great benefit to Power and Water?

Mr MACRIDES: It could be beneficial to Power and Water in a number of ways. One is because it allows us the opportunity to substitute gas for diesel in some of our power plants in indigenous communities. Clearly, that is going to be the priority for the use of this additional gas at the start. Having said that, that is a small component of what is required, and it could be beneficial in the context of Power and Water providing a gas supply to third parties.

Mr PHILIP: If I could add to that. The other element that could be beneficial to us is the keen pricing on this 120 petajoules of gas; that is, from our perspective, in entering into commercial arrangements, we would be hoping to spread the benefit of that keen pricing by having an element on top across all of our consumers. Our base contract prices are higher than this so-called wedge gas is priced at. One of the goals for us is to see if we can lower our overall gas price to all of our customers on getting a better deal on the 120 petajoules from customers.

In terms of the Arafuras of the world and how they interact with us, I sat in on a presentation by their managing director well over a year ago and met with their chairman. So, they do come and see us. I would say one thing, and it is not just common to Arafura, it is common to most of the buyers; that is, their estimated demands for energy, gas and water seem to vary enormously. You can go from having a perceived or potential water demand - 3 gigalitres was one; energy, probably up to nearly 200 MW, in that order - some huge number now back to closer to 180 MW. So, it is a bit of a moving feast from their side as well as ours, but we certainly interact with them as best we can.

Mr MILLS: Do ConocoPhillips pay for the water that they take from Power and Water?

Mr MACRIDES: Do they pay?

Mr MILLS: Yes. There were stories going around that they did not pay for the water. That is not the case?

Mr MACRIDES: Not water usage. The stories might relate to the pipeline, I do not know. But, water usage is just a commercial transaction.

Mr MILLS: Is there a lot of water used by ConocoPhillips?

Mr MACRIDES: It is a significant user. I have to say, Power and Water is the largest user of water, because we have power stations and water is a coolant.

Mr MILLS: So, therefore, they would be large users as well?

Mr MACRIDES: Potentially, yes.

Mr MILLS: Going into another area completely, and thank you for that, that has been ...

Mr WOOD: Could I jump in for one second on the gas? I was talking to a hotel owner in Darwin. He was talking about getting gas into a high-rise residential facility in Stuart Park. Are you looking at bringing gas in as domestic gas, or are you not looking at that at all?

Mr MACRIDES: I have to say that our business plan does not countenance us at this stage becoming a gas reticulator.

Mr WOOD: Is anyone interested in doing it? Or would this be a private deal between ...

Mr MACRIDES: There are a number of companies that I am sure may well be interested. There is already some reticulation of gas out at East Arm, and I am sure the Kleenheats and others of this world may well be interested. I do not know. Thank you.

Mr MILLS: Mr Macrides, the Weddell station - is the location of that station derived from ancient plans that have existed in the Territory for some time that that be the place where there is going to be urban growth, or is it just pick a spot?

Mr MACRIDES: Pick a spot. It is probably a bit more scientific than that. At end of the day, at the moment, all of Darwin's power generation comes out of one point. It is not ideal to have everything tied up in one location. We knew that we had to augment supply for Darwin, and we knew the time frame for supply augmentation. We looked around for what were the most prospective sites available to us. We actually looked at a number of sites and ended up settling on Weddell, for a number of reasons. One is its proximity to the gas pipeline itself and the ease with which we could put transmission infrastructure out there. A whole range of issues are associated with it and, at the end of the day, we settled on Weddell.

Twenty years ago, we did not plan on Weddell being the site. We knew we had to augment supply. We felt it was better to create a new power station than augment supply at Channel Island, and continue on with this notion of having all your eggs in one basket. We considered a range of sites for a new power station. At the end of the day, we chose Weddell for a range of reasons.

Mr MILLS: When was the decision made that Weddell be the location?

Mr MACRIDES: It was probably near on two years ago, maybe. I would not be quoted on that.

Mr MILLS: That is all right, just give me a ballpark.

Mr MACRIDES: I think it is in that order.

Mr MILLS: Thank you. The technology that will be used in this power plant; is it the same as Channel Island?

Mr MACRIDES: Each generation of generators tends to be more efficient than the previous generation of generators. What we have gone for with Weddell is the most efficient available generation plant on the market today. Its configuration will be very similar to any power station - whether it be Channel Island or Ron Goodin, or even the new power station in Alice Springs. What makes the power station significant is the generators that go into that station. At this stage, the two sets that are on-site out there are high efficient gas turbines.

Mr MILLS: Thank you. Now, a different area altogether. When you spoke of the methane that comes back as a buy-back, what about smart meters and the like? Where are we at with those who can produce electricity, putting it back into the system and getting a rebate?

Mr MACRIDES: Smart meters are slightly different to what you are alluding to, which is on-site production and sale back into the grid itself.

Mr MILLS: But, at both levels. Say, if you have an incredibly efficient home that has solar panels all over it, and you produce more than you use, some of it goes out, some of it comes in. At the end of the

day, Power and Water might have to pay you. Or if it is the hospital - that concept; perhaps the industrial scale and the domestic.

Mr MACRIDES: Perhaps if I address both elements.

Mr MILLS: Good.

Mr MACRIDES: Smart meter technology is simply a technology that is being rolled out. There is actually a national trial of it, and there is a series of working parties through the National Ministerial Council on Energy at the moment on the roll-out of smart meter technology across Australia. Smart meter technology really probably allows for full retail contestability in the sense that every domestic household - because generally, smart meters are already used in business undertakings - can have a meter that talks back to the retailer and also provides information to the householder on energy consumption on intervals during the course of a day. Regarding smart meter technology, in terms of mass roll-out throughout the Territory, the jury is still out on whether or not it is commercially viable to do that. We are certainly looking at smart meter technology in the context of Solar Cities in Alice Springs.

The second part of your question related to the sale back into the grid of, say, energy produced through PVs on a person's roof. We have actually had a PV buy-back system in place for quite some time. It has not been widely taken up; we probably only have a couple of people exporting energy back into the grid. I will put that into context in a minute. However, it is a significant part of the Solar Cities project in Central Australia. The way that this technology operates is that, typically, a household probably consumes in the order of about 8 MW hours a year of electricity for domestic use. A PV array on a person's roof probably only generates about 2 MW a year, which is less than 20% of the total demand of a household. Unless the household is incredibly frugal, generally there is no sale back into the grid.

Mr MILLS: I have a couple of enthusiastic people in my electorate.

Mr MACRIDES: Yes, and great, good on them. At the moment, the buy-back rate that we have within Power and Water, instead of it being a nett buy-back rate, it is actually a total buy-back rate. What happens is that, if you have a PV cell on your roof that is generating 2 MW a year, we will actually buy that full 2 MW a year. The way we do that is that we, basically, provide you with a credit on your electricity bill. Instead of it being a nett buy-back rate, which is a rate whereby only the amount of excess energy that you put into the system we pay for, we actually pay for everything you generate and nett it off your bill. So, there is a benefit in people putting PV; the pay-back period is shorter.

Mr WOOD: In reality, if someone goes to all the expense of putting that up on the roof, how many years is it going to take them to get their money back and how long does the system last?

Mr MACRIDES: The system will last for a long time. In terms of the pay-back period, it really depends on how much they are paying for a PV cell to be put on their roof, and what rebate they are getting for that cell to be put on their roof.

Mr WOOD: I thought you might have done my homework for me.

Mr MACRIDES: Well, the problem is that, until recently, there was about an \$8000 rebate for people to put PV on their roof. The cost of putting PV on your roof is certainly in excess of \$8000 but, because more and more people are becoming, I guess, energy conscious, more and more people are putting PVs on their roofs, which means that the cost of putting PVs is coming down, so the pay-back rate at the moment is many years.

Mr MILLS: Is the rebate at the retail or the wholesale price?

Mr MACRIDES: It is the exact same price that we charge you for electricity.

Mr MILLS: Very nice, good on you. Why is that, just to make it easier? Because, I cannot imagine ...

Mr MACRIDES: When the scheme was designed a long time ago, nobody really talked about rates for export back into the grid, because we really did not think that, one, too many people would take it up. Also, there was going to be a lot of nett export back into the grid itself, so we thought we would make the arrangement attractive for people to put PVs on their roof by actually paying them for all their output. We did it on the basis of saying, the rate at the moment is around 15¢ per kW/h, and we will reimburse you 15¢ per kW/h for all your output, at the same rate.

Mr MILLS: Good on you. So, there is a risk - probably a small one though - that if someone has the capacity to produce power cheaper than you can, they could end up making money by putting it back into the system, and they end up with a stronger return, because ...

Mr PHILIP: That has not happened so far.

Mr MACRIDES: The risk is probably ...

Mr MILLS: A lot of methane.

Mr MACRIDES: There is a risk in everything.

Mr MILLS: Where are we at with the poo shooter? You have done the poo shooter?

Mr CHAIRMAN: We have been through that.

Mr MILLS: My apologies, I will find out later. Did you talk about the exclusion zone? I understand that there is talk of an exclusion zone around that.

Mr MACRIDES: There is already, there has been for a period of some considerable time.

Mr MILLS: Is it 500 m on all sides?

Mr MACRIDES: Just bear with me, I will give you an answer to that.

Mr MILLS: Mr Philip needs to know, because he is going fishing in that area.

Mr MACRIDES: Sorry, Mr Mills, you have stumped us. We are all sitting here scratching our heads trying to remember what the exclusion zone is. I am happy to take the question on notice.

Mr MILLS: Thank you. I will add another part to it, which then relates to this.

Question on Notice No 11.1

Mr CHAIRMAN: If I can do the formal bit and ask you to restate the question for *Hansard*, Leader of the Opposition?

Mr MILLS: What is the exclusion zone around the poo shooter? How is that policed?

Mr CHAIRMAN: Mr Macrides, are you happy to take that on notice?

Mr MACRIDES: Happy to take it on notice, Mr Chairman.

Mr CHAIRMAN: I allocate that question No 11.1 for *Hansard*.

Mr MILLS: Thank you. Mr Wood, did you talk about the dam?

Mr WOOD: Oh yes, I talked on the dam - three dams.

Mr MILLS: Oh really, you have done all that?

Mr WOOD: The only water left is in the sea.

Mr MILLS: Oh, my goodness.

Mr WOOD: We could talk about that too –an osmosis plant.

Mr MILLS: So, have you talked about the weir at the Marrakai?

Ms SACILOTTO: While you are working that out, can I ask a question?

Mr MILLS: Yes, ask a question, please.

Ms SACILOTTO: Mr Macrides, I just wanted clarification on the Larrakeyah outfall. I heard you say that it would be diverted to Ludmilla and then out at East Point. Did I also hear you say that some of it would be diverted to Frances Bay?

Mr MACRIDES: To the pumping station, it is just simply the pipes under the ground, basically, then it goes from Larrakeyah to Frances Bay, and then it is pumped through to the treatment plant and treated.

Ms SACILOTTO: At Ludmilla?

Mr MACRIDES: Yes.

Ms SACILOTTO: Is that shortest route to go, or is that what you are recommending?

Mr MACRIDES: It is the shortest route to go. Even that is going to be problematic for us because of all the infill development that has occurred and all the high-rise buildings around the place. We believe it is technically possible and we are actually, as I said, out there looking at surveying the route at the moment.

Ms SACILOTTO: Is there another outfall at Dinah Beach or Frances Bay at all?

Mr MACRIDES: No, there are five outfalls in Darwin and the Darwin area - Larrakeyah, East Point and, then, Buffalo Creek, and one out at Palmerston.

Mr MILLS: Thank you, Mr Macrides. Have we ever come close to water restrictions in Darwin, and how close?

Mr MACRIDES: I do not know about close to water restrictions. Three or so years ago, the Wet Season was a fairly bad one, and we were very closely monitoring the dam level and looking at whether or not there may have been a need for water restrictions at that stage. There was a late burst of rain, which meant that that did not happen.

Having said that though, Top Enders, in particular Darwinians, are huge water users; they are way out of kilter with the national average. We believe that there are huge opportunities for us to do more by way of public education on water demand. As I mentioned in relation to questions from Mr Wood about dam sources and augmentation of water supply, clearly, our preference would be not to have to spend \$200m on a new dam if we can avoid it by just simply doing something about people's usage and demand for water, particularly in Darwin.

Mr MILLS: Do you think that there is that avenue to be explored - that we reduce our usage to save us the expense of building a new dam?

Mr MACRIDES: You will never save the expense of building a new dam; it is just simply a matter of timing. It is whether or not that dam is required in the next 10 or 15 years or whether you can push it out further. We are not stopping any of our work associated with all of the necessary clearances and all the necessary developmental work associated with a new dam, because one will be inevitably required at some stage, it is just a question of when. Yes, I believe there are significant opportunities for us to reduce our water demand through a number of means, not least of which is public education.

Mr MILLS: Anyone who visits their family down south at Christmas time gets a wake-up call as to usage. My mum was watering the front yard early in the morning of Christmas Eve, hose in her hand. We thought we were going to have to visit her in gaol on Christmas day if she got bailed up.

Mr MACRIDES: The issue that we always face as a water supplier out there is that, particularly with Darwinians, in the Wet Season it rains. People then assume that water is abundantly available up here. What they forget is that it rains for a very short period of time and, then, there is no rain for a significant period of time and, in that period, we drain massive amounts of water from our supply systems.

Mr MILLS: There are two bits of information that I need clarification on. Perhaps Mr Wood has already clarified it. There has been, or is there, a promise to raise the wall of Darwin River Dam?

Mr MACRIDES: Yes, we are actually well advanced in our processes for increasing the height of Darwin River Dam by 1.3 m.

Mr MILLS: Okay. And Manton Dam?

Mr MACRIDES: We are well within the process of looking at bringing Manton Dam back online. As part of that process, we already have an extraction licence from Manton Dam and, over the course of this Dry Season, we are actually pumping out, on a daily basis, what our extraction licence allows us to extract from the dam, and putting it into the river to just see what happens with the water quality. At the end of the day, that will determine what level of treatment would be required for us to bring Manton Dam back online and what amount of infrastructure is required to do that.

Mr MILLS: The raising of the wall at Manton, is that ...

Mr MACRIDES: Darwin River.

Mr MILLS: So it is not Manton?

Mr MACRIDES: No, Darwin River Dam.

Mr MILLS: Okay.

Mr MACRIDES: There two things happening. One is increasing the wall height at Darwin River Dam by 1.3 m, which gives us an extra 20% capacity out of that supply source. We have had a long-standing request to increase the extraction from Howard East bore field. The regulator, for whatever reason, is in the process of reviewing that, but the review process will take some considerable time, and there is no certainty at the end of that that we will actually get an increased extraction licence for Howard East bore field. So we have an immediate requirement for us to look at an alternate water source for Darwin. Hence, the work we are doing on Manton Dam about how quickly we could bring that back online, and what it would take to bring it back online.

Mr MILLS: Thank you, Mr Macrides. It is a small town and you hear stories, rumours, that there is an issue with the concrete in Darwin River Dam, in terms of an engineering challenge in raising the wall by a metre or so, and the ensuing pressures that will come on a structure that may not be able to withstand it. Can you give us some advice or clarification on an awareness of any potential weakness, or a reassurance that those issues have been considered?

Mr MACRIDES: I absolutely guarantee that those issues have been considered. There are two things that we are doing in relation to the work we are doing on Darwin River Dam. One was the appointment of an expert panel to advise us on all of the actions we are taking on raising Darwin River Dam. That expert panel consists of engineers, scientists, etcetera, to advise us on each step we are taking; to ensure that we have this independent third party review of what we are doing. We have also done all the preliminary engineering work on it, which shows that it is possible to raise the height by 1.3 m without there being any structural integrity issues associated with it. We have appointed the Snowy Mountains Engineering Corporation, SMEC, who are world leaders in this technology, to actually do all the work associated with the designs for the new dam height.

The challenge for us is not going to be, I do not believe, the actual raising of it by 1.3 m. Remember, it is a production facility; it is a working dam. It provides Darwin with its potable water supply. It is just managing this construction work in that context.

Mr MILLS: All right, thank you. If you are successful with your plans to tap into Manton Dam, will that impinge upon recreational use?

Mr MACRIDES: We are on the public record as saying that existing recreational use will continue, hence the need for a treatment facility there. The real question is, what level of treatment is going to be required, because we do not know what will happen to the water quality when you start releasing it. We are on record as saying that existing recreational usage will continue.

What we would strongly object to is any further recreational or commercial use of that dam. So, if a proponent came along tomorrow that wanted to put up some cabins or something along the waterfront, the answer from us would be no. But, continued use of the dam for existing recreational purposes will be okay.

Mr MILLS: All right. Therefore, the door would be open for sensible discussions regarding the recreational use of Darwin River Dam, say, with little electric motors. Mr Philip could go and do a little

trolling around there, as long as you do not have any petrol - but restricted and controlled use of Darwin River Dam?

Mr MACRIDES: The answer would be no, on the basis that ...

Mr MILLS: Double standards.

Mr MACRIDES: Not double standards at all. The issue for us is water quality. As I mentioned, we do not need to treat Darwin River Dam's water. At the moment, the water quality is impeccable because it is a closed catchment facility there - we have total control over that facility. The minute you introduce recreational usage to a dam means you have to put water treatment in. If we are about to spend \$50m on putting water treatment into Manton Dam, and it does not cost us anything at the moment to use water out of Darwin River Dam because it is closed catchment, I could not go to my board and say: 'Let us open Darwin River Dam up to recreational use, but it is going to cost you \$50m to put a treatment facility in to do that'.

Mr MILLS: Okay, I will back off. Sorry, Mr Philip, I thought it would be a good opportunity for you.

Answer to Question on Notice No 11.1

Mr MACRIDES: Mr Chairman, in relation to the question on notice No 11.1, I actually have an answer for that if you would like?

Mr CHAIRMAN: Please.

Mr MACRIDES: The exclusion zone is a 400 m radius around the outfall, and it is under a Port Corporation by-law, which means policing of it is the responsibility of the Darwin Port Corporation.

Mr MILLS: Thank you.

Mr WOOD: Just quickly, two questions. Can you run the water from Manton over the hill into Darwin River Dam? Could it be argued that it would be so diluted - which was the argument about the poo shooter - in that massive amount of water that it would not need treatment?

Mr MACRIDES: It is one of the options that we have actually looked at, as well as additional work at the dam itself, I believe the answer would be no.

Mr WOOD: Just quickly, the other question. Have you looked at putting more draw points on your mains for rural people to load up their water tank with water?

Mr MACRIDES: I am not aware that it has been an issue. However, certainly if others are asking for additional downpipes, we would look at it. It is really a matter of how much it is going to cost to do it.

Mr WOOD: The last one is water tanks. Do you think they are beneficial in reducing, realistically, the amount of water that we would use in Darwin? In some places in Darwin you would be pushing to get a water tank, because it would take up all the space between you and the neighbour.

Mr MACRIDES: I am not sure I would want to comment on that, because it would be a personal comment. I do not know, different strokes for different folks. Realistically, the answer would probably be no, but, who knows?

Mr WOOD: Do you think it is more a feel-good or does not actually make a lot of difference?

Mr MACRIDES: It certainly makes more sense in an arid zone but, then, you have the problem if it does not rain, how do you fill the tank up anyway? In a place like Darwin, I honestly do not know. It is hard to say. The problem we have is an education problem; that is, educating consumers about the fact that water is a scarce resource. It does not matter that it rains three months of the year. That is the greatest hurdle we face.

Mr WOOD: Plant more native trees instead of exotics.

Mr MACRIDES: All of those things. Why is it that we need grassy verges and beautiful lawns, etcetera. It takes a quantum mindset change.

Mr WOOD: Thank you, Mr Chairman.

Mr CHAIRMAN: Any further questions?

Mr MILLS: I do. It is about grey water recycling in Central Australia. That has been talked about from time to time. Are there any positive steps in that direction?

Mr MACRIDES: Earlier this month, we opened up our plant there, which is treating effluent out of the Ilparpa sewage ponds, and transporting that treated effluent to AZRI, where it is being pumped into underground aquifers and is available for use for horticulture purposes. Obviously, because the pipeline goes past a number of significant water users, we are very keen to talk to them about changing over from potable water usage for watering their parks and gardens to using this treated effluent.

Mr CHAIRMAN: On that, I will close the session. I thought we were in danger of having to end it early, albeit by a minute. That now concludes the Government Owned Corporations Scrutiny Committee public hearing process. I take this opportunity to thank the members of the Public Accounts Committee who formed the core membership of this committee, and for the overall manner in which these public hearings have been conducted. I also place on record a vote of appreciation from the committee to all other members who participated in the hearing process. On behalf of the committee, I extend my thanks to Mr Neil Philip and Mr Andrew Macrides and the other officers you brought here with you this afternoon. Thank you very much for your time.

The committee adjourned.
