



**LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY**

**12th Assembly**

**Committee on the Northern Territory's Energy Future**

**Public Briefing Transcript**

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Litchfield Room, Level 3, Parliament House

- Members:** Mr Gary Higgins, MLA, Chair, Member for Daly  
Mr Kon Vatskalis, MLA, Deputy Chair, Member for Casuarina  
Ms Larisa Lee, MLA, Member for Arnhem  
Mr Gerry McCarthy, MLA, Member for Barkly  
Mr Gerry Wood, MLA, Member for Nelson
- Witnesses:** Mr Scott Perkins, Chief Executive Officer: Department of Mines and Energy  
Ms Debby James, Petroleum Registrar: Department of Mines and Energy

**Mr CHAIRMAN:** We might get going seeing it is five past two – Mines and Energy

On behalf of the committee I welcome everyone to this public briefing into key challenges and opportunities associated with meeting the Northern Territory's future energy needs. I would like to thank and welcome to the table to give evidence to the committee: Scott Perkins, Chief Executive Officer, and Ms Debby James, Petroleum Registrar. Thank you both for coming before the committee. We appreciate you taking the time to speak to us and look forward to hearing from you today.

As you know, this is a formal proceeding of the committee and the protection of parliamentary privilege and the obligation not to mislead the committee apply. Being a public briefing, it is being webcast through the Assembly's website. A transcript will be made available for use of the committee and may be put on the committee's website. If at any time during the hearing, you are concerned that what you will say should not be made public, you can ask the committee to go into a closed session and take your evidence in private.

I will also ask each witness to state their name for the record and the capacity in which they appear. Prior to doing that, I will invite you to make a brief opening statement before proceeding to the committee's questions. Mr Perkins, would you like to make an opening statement?

**Mr PERKINS:** Thank you, Mr Chairman. I will open with a statement. Members of the committee, thank you very much for the invitation to appear and contribute to the future planning of the energy industry in the Northern Territory.

The strategic vision for the Department of Mines and Energy is to contribute to the social and economic wellbeing of the NT through promoting and regulating responsible development of minerals and energy resources. The committee has expressed particular interest in three broad matters and they are: details of on and offshore tenements; an overview of the Energy Directorate; and an overview of the core programs. I will cover those three in the short opening statement, but I will start with a short overview of the Energy Directorate.

You will recall that in the 2013-14 budget speech, the Treasurer announced the establishment of an Energy Directorate in the Department of Mines and Energy, and the Northern Territory Energy Advisory Council. Additional funding of \$0.95m was provided in the 2013-14 budget for these initiatives. The Energy Directorate will develop and coordinate the whole-of-government energy policy advice and provide industry support and regulation of upstream energy sources and downstream energy activities including for the generation of electricity.

This encompasses renewable energy resources and gas for consumption both within the Territory and for export. The abundance of gas production potential and the natural advantage of sunlight in the NT make it easy to envisage a policy set that is based on these two commodities and the Energy Directorate is being structured along these lines. We have a clear view of securing future energy security bearing in mind the need to plan for future industrial and domestic development, and ensuring that the price of energy remains competitive with the rest of Australia.

In developing the gas and solar themes, we also recognise the need to contribute to an overall cleaner energy platform using the NT's natural resource advantages and the directorate will be mindful of this context as it develops policy frameworks and actions. With the restructuring of the Power and Water Corporation, the Energy Directorate will also pick up management of electricity regulatory matters. However, this is a work in progress and the final form of the work will not be

known until matters of detail associated with the transfer of activity from PWC are decided. You will appreciate that there is a great deal of work going on in the background about these matters currently.

There is a major precursor to developing good outcomes in the energy sector in that we must ensure that our regulatory environment supports development while ensuring that risks to the NT are mitigated through sensible development parameters. To that end and building on the Hunter review of our petroleum regulations, we are in the process of reviewing our three petroleum acts. The review will be complete by 30 June 2014 with any changes to be consulted and debated in the 2014-15 financial year.

In preparation for this, several initiatives are now implemented or are in the process of being implemented. For instance, all the recommendations of the Hunter report are in place and published on the department's website. This has led to the development of good contemporary management and environmental regulations based on those operating in Western Australia and aligned with the federal government's offshore regulatory framework.

In addition, there is a submission before Cabinet for a minor amendment to the relevant act to allow for implementation of a use it or lose it provision for petroleum tenements prior to the end of 2013. This will have the outcome of accelerating development and prevent land banking or delay by those tenement holders that do not have the capacity to realise the potential of their holdings. All this is designed to contribute to the economy of the NT and in that context the Energy Directorate is an important contributor to evaluation of interconnecting gas pipeline infrastructure. Therefore, we have initiated a study into the economic potential of the gas reserves in the Northern Territory. This report will fill a gap in our knowledge about the baseline economics of the Northern Territory gas reserve potential.

Petroleum tenement management is also within the role of the Energy Directorate, but only as it relates to the management of Northern Territory internal orders and onshore obviously as, essentially, those internal orders are the three-mile limit.

Offshore tenements are administered by the Commonwealth. Currently, there is only one granted tenement in Northern Territory waters. We also regulate pipelines and there is one granted pipeline licence.

Onshore we have seen an incredible acceleration of activity in the past three years, with almost all the available land given over to petroleum exploration leases. Of these 141 are applications only, and 52 are granted. I can provide details of those if required.

I now move to the core program which you have also asked for detail about. The core program is a \$3.95m program designed to increase the knowledge of the geological potential of the Northern Territory. The focus is on acquiring new pre-competitive geoscience information to stimulate exploration, improved online delivery of information and data, as well as provide industry grants for high risk exploration and programs.

One of the fundamentals of focusing exploration activities and, therefore, accelerating energy development in the Northern Territory is good overall geological knowledge. Known as pre-competitive geology, this public information greatly assists the rapid development of minerals and energy production, sometimes accelerating finds by many years.

During the past nine months the focus of the core program has expanded to provide real support to the oil and gas explorers. This includes new programs to assess the gas and minerals potential of the Territory's sedimentary basins, and surveys that will cover more than 10% of the Territory with high resolution gravity data to assist exploration.

Work has been done in both the southern part of the Wiso Basin and in the McArthur Basin.

Mr Chairman that ends the opening statement. I trust that has been a useful start to this session and I am pleased to take any questions.

**Mr CHAIRMAN:** Thank you. The department is responsible for issuing all the energy titles, but can you give me an overview on the Northern Territory's legislative and regulatory framework around the onshore/offshore energy titles and the impact of the proposed use it or lose it policy on any existing energy titles?

**Mr PERKINS:** By way of overview, I will start by saying you will remember the Montara oil well incident some years ago. One of the consequences of that was a move to transfer the offshore tenements to the Commonwealth, which is now the case. Those tenements outside the three-mile limit are administered by the Commonwealth.

**Mr VATSKALIS:** There were three elements. There was the tenement within three miles, the joint controlled Commonwealth, state or territory waters, and Montara happened on Commonwealth waters administered by the Territory. My understanding was apart from Western Australia, which kicked up a stink and threatened to go to the highest court because it was state; every other state surrendered and gave all their rights to the Commonwealth. Ferguson was, at the time, the minister who initiated the whole lot, and Montara was an excuse irrespective of what happened. I have my personal views on that and, in time, will make them public. We are now controlling only three miles. Does the Commonwealth control everything outside the three miles?

**Mr PERKINS:** That is correct. We, like Western Australia, retain control of the three-mile limit.

**Mr VATSKALIS:** Every state retains three miles, but everything out of three miles has gone to the Commonwealth now. The Western Australians may retain control of the waters further out than three miles. That is the only state to maintain this.

**Mr PERKINS:** I understand that is correct, yes. Our tenements only extend to the three-mile limit. There is only one granted tenement in respect of that. I can refer to the number in a moment, Mr Chairman. That tenement is down around the Wadeye area and is in an inlet in that area. At the moment, that is the only granted one.

I am sure the process is relatively simple. A proponent can look at a vacant block - bearing in mind the tenement can go over mineral tenements - make an application for that area, it then goes through a process of assessment and, eventually, provided all things are satisfactory, can be granted for exploration. At that stage, activity is then allowed. That activity is regulated. To date, it has been, basically, by stating expenditure and is managed that way. They turn over every five years, and that has been, more or less, the normal activity.

As I said in my opening statement, there has been a huge increase in those tenements over the last three or four years, to the extent now that almost all of the Northern Territory is covered by applicants or granted title.

**Mr VATSKALIS:** Just for the benefit of my colleagues. The exploration licence is issued for a period of five years?

**Mr PERKINS:** Yes.

**Mr VATSKALIS:** Do we have any exploration licences with a similar arrangement such as for mining exploration, where after a certain period of time 50% is surrendered so, within a period of time, the exploration licence is wiped out?

**Mr PERKINS:** I might defer to Debby James for specific detail. I brought Debby along because she is the Petroleum Registrar and can give you those technical details.

**Ms JAMES:** Debby James, Petroleum Registrar. After five years, the applicant can renew. There is a requirement to relinquish 50%; however, there is a clause in the act that allows them to retain more than that 50% if there is a justification for doing so.

**Mr VATSKALIS:** Debby, the first exploration licence duration is five years. After five years, they have to surrender 50%.

**Ms JAMES:** They do not have to; they can renegotiate.

**Mr VATSKALIS:** Yes, but if they do not want it, they surrender 50%.

**Ms JAMES:** Yes, that is correct.

**Mr VATSKALIS:** How long is that second ...

**Ms JAMES:** Another five years.

**Mr VATSKALIS:** Then after five years, they surrender the 50% of the first share, and so on. So, within a period of, let us say how many years, you just give up your licence?

**Ms JAMES:** It can reduce. It will reduce over the period of time. I believe it is three times renewal over the five years.

**Mr VATSKALIS:** So, within 15 years you lose it if you do not do anything?

**Ms JAMES:** Yes. However, on that matter I guess there is a requirement to extend.

**Mr VATSKALIS:** Oh yes, provision, even in mining tenements now. Are we going to provide a shorter period of time for the user to lose it, or are we going to leave it like that?

**Mr PERKINS:** For the user to lose it, I might cover that broadly. The practice up to date with the petroleum tenements has been to merely set an expenditure level and, once that level is reached, they have satisfied the development covenant. Where that has led us to is there are some tenements which, for multiple reasons, have been continually renewed with a small amount of expenditure being achieved or, in some cases for instance, where there has been access problems or negotiating with landholders those tenements have been rolled over without expenditure.

In the current context of the way the industry has developed in the last couple of years, that has, obviously, been seen to be inadequate. The effect of the proposed changes will be we will be able to assess a work plan and renew the application based on a good work plan, rather than just expenditure level.

**Mr VATSKALIS:** So, a similar approach as we do for mining tenements?

**Mr PERKINS:** That is correct.

**Mr VATSKALIS:** If they cannot spend the money, they cannot do anything because they do not have access, for various reasons; let us say native title, then it does not really matter because, if another company takes over, it will have the same problem. How can we overcome this problem?

**Mr PERKINS:** Yes, that is going to be an interesting question. I would think the legislation, particularly in the Land Rights Act, gives a period time of 22 months. There may well be a contention that 22 months is enough for both sides to reach an agreement. In which case, if you cannot reach an agreement, a judgment will be made about the application to roll through. Specifically, it is difficult to give an answer to that question because there is, inevitably, going to be some difficulties peculiar to each case.

**Mr VATSKALIS:** Who has the right to give the exclusion of surrendering the 50%? Is it you as the CEO of the department, or does it have to come to the minister?

**Mr PERKINS:** I will ask Debby to answer that.

**Ms JAMES:** It is delegated down to the CEO of the department.

**Mr VATSKALIS:** Thanks. I am familiar and they are not, so it makes things more clear now about their lease; they lose it.

**Mr WOOD:** We talked about details of offshore and onshore energy titles. What are we looking for in regard to energy? Are we looking for petroleum or gas? With gas, are we looking for unconventional fractured rock gas? What is the range of things people are looking for?

**Mr PERKINS:** That is a very good question. Generally speaking, the companies are looking for oil or conventional and, as they strike the relevant geology, they will then develop their plans based on that. Conventional, ordinary deposits are the easiest and cheapest to access but, as the companies find out what is under the ground, they can then make subsequent decisions.

**Mr WOOD:** What is the likelihood of good oil deposits? We have heard much about gas. The minister has spoken about gas. But is oil or petroleum a likelihood in the Northern Territory?

**Mr PERKINS:** The answer to that is we do not know the answer. Clearly, there are good deposits because they have been found in the Mereenie area, for instance, in the Amadeus Basin. But, generally speaking, the rest of the Northern Territory is very underexplored, hence you have the companies out there looking for it. The opinion, if you like, in the geological survey is it is likely there will be other discoveries, but it is probably more likely they will be unconventional gas discoveries.

**Mr WOOD:** When we talk about energy exploration, do you also talk about coal? I know there used to be old maps of Wadeye and Port Keats. There used to be coal in that area, and also uranium. Are they included in energy exploration?

**Mr PERKINS:** In the sense we are talking about with petroleum titles, no, because those commodities fall under mining title.

**Mr WOOD:** Right.

**Mr VATSKALIS:** That is a very good question. You have an energy directorate to look for energy resources. Both coal and uranium are energy resources. I know they are falling under the mining provisions, but is your directorate going to take over and look after them, or are they going to be left with the Mining Division?

**Mr PERKINS:** The answer is the latter. The mining activities will be looked after by the Mining Division. It is probably worth expanding briefly on a reason for that. If there is mining activity, the activities are well-known. It, generally, is quite shallow and found using mining geological techniques.

The oil and gas industry works predominantly on a drilling program and the style of operation of those rigs is quite different. That relates mostly to the fact that they may find high-pressure pockets under the ground and, therefore, there is a different safety structure to the rigs.

**Mr WOOD:** Including geothermal in oil and gas exploration?

**Mr PERKINS:** We will cover geothermal in oil and gas exploration. Again, that is yet another technique with drilling. We cover that in amongst the energy directorate.

**Mr McCARTHY:** Can I ask a question? In relation to the public exhibition period, or the awareness of the exploration, I was in Maningrida this year and the locals did not have any idea of what to expect in relation to exploration for petroleum in the estuaries. The image was of a mega platform like the images you would get off television. I was not able to explain it, as I had not seen that type of exploration either. I knew what to expect on land. Does the department engage in that information and education and awareness role?

**Mr PERKINS:** Yes. We currently have a program of public meetings being rolled out across the Territory. There have been meetings in Alice Springs and Tennant Creek. We had some staff absences so there has been a small gap and we start the next set of meetings in the middle of November. They are being done in conjunction with APPEA, the industry body, and the industry itself

**Mr McCARTHY:** With a public exhibition in a community like Maningrida there will be lots of visuals to show people how this industry operates. What would an estuary off the northern coast look like for an exploration company looking for petroleum?

**Mr PERKINS:** I might add, we have also spoken at two meetings of the Northern Land Council and given them presentations. Again, depending on the situation, typically in an estuary you would not get a platform in the water. One of the reasons is it is expensive. You would more likely have a drill pad set up near the estuary and they would drill down and then out underneath the estuary, if indeed that was where the geology led them. That type of technique would probably apply to any of the near onshore areas. By way of indication, that lateral drilling can go out a kilometre or so, so it is quite a distance.

**Mr McCARTHY:** Thank you.

**Mr CHAIRMAN:** Can you give us some information on the core program and any outcomes to date?

**Mr PERKINS:** If you do not mind, Mr Chairman, I will refer to some notes?

**Mr CHAIRMAN:** Yes.

**Mr PERKINS:** I will run through a couple of stats, Mr Chairman, if you do not mind which ...

**Mr CHAIRMAN:** Yes, no problem.

**Mr PERKINS:** ... will lead on to questions. In 2013-14 we had collaborative industry grants for greenfields exploration and we quite carefully choose those - that is \$0.68m; improving the gravity

magnetic and radiometric knowledge is \$0.5m; new geoscience mapping and resource assessment projects in Jervois, Amadeus Basin and gulf country \$1.2m; digital hyperspectral scanning of drill core – that is taking the drill core into the shed and looking at it with a particular machine - \$0.27m; improving the information floats as online access to technical reports is \$0.06m; programs to attract international investment which is not directly geology but covers things like the Chinese investment program, \$0.26m; and production of digital volume on onshore petroleum resources potential of the NT is \$0.1m. That is money well spent because it publicises what we call pre-competitive geology which allows the companies to direct their geologists more precisely on the ground. It saves money and time.

In the broader sense, we have also published - you might remember a launch some weeks ago of a volume called *Geology and Mineral Resources of the Northern Territory*. That is 1100 pages of pre-competitive geology analysis and the plan at the moment is to make that a continually updated program.

In regard to directly relevant to energy, you will recall that in the opening statement I mentioned we had completed regional gravity surveys in the Wiso Basin and the McArthur Basin as well. That is a rundown on where it goes.

**Mr CHAIRMAN:** Okay.

**Mr VATSKALIS:** That is the core relating to exploration and does not include – do you still have the program subsidising mining companies for exploration?

**Mr PERKINS:** That falls under the core program as well.

**Mr VATSKALIS:** Yes, but it is still in part of the core. How much money is allocated to that?

**Mr PERKINS:** I might have to take that one on notice, Mr Vatskalis.

**Mr VATSKALIS:** Yes, please.

**Mr PERKINS:** I do not think I brought that detail here.

**Mr CHAIRMAN:** Can you just repeat the question for us Kon, for Hansard.

**Mr VATSKALIS:** How much money allocated for exploration initiatives under the core program?

**Mr PERKINS:** Yes. What I could do, Mr Chairman, is provide a written brief on how all of the money core is split up. You probably ...

**Mr VATSKALIS:** Yes, including that one. That will be fantastic. That is good.

**Mr CHAIRMAN:** I simply got him to restate the question for Hansard upstairs.

**Mr WOOD:** Can I ask another question?

**Mr McCARTHY:** We are on mine.

**Mr WOOD:** Oh, sorry. You first.

**Mr McCARTHY:** I want to know how that work is undertaken. Is it public tender to go out and do that to create all the data?

**Mr PERKINS:** Most of it is collaborative. We advertise, companies then apply, their work program is assessed to make sure, on a couple of counts, it is legitimate, and it is providing information we need. Then, the money is allocated to the company to subsidise their program.



**Mr VATSKALIS:** Up to \$100 000. Is it still \$100 000?

**Mr PERKINS:** Again, precise details I can provide.

**Mr VATSKALIS:** Okay, thank you.

**Mr WOOD:** Mine is a little broader. Core programs try to increase our knowledge of what is in the Territory from a geological point of view. I just want to find out whether the department has any estimates – very broad estimates - of potential energy resources of the Northern Territory. The minister has said in a couple of statements how many petajoules – even higher than that. I think he had TCFs. How is that?

**Mr PERKINS:** That is trillion cubic feet.

**Mr WOOD:** He gave the impression there is a lot of energy out there. Do we have an idea what the potential energy resources are of the Northern Territory including - I do not think we can leave coal and uranium out of it because they are not energy source. Our job is to look at future energy for the Northern Territory. Do you know what the potential of energy sources are in the Northern Territory at this stage?

**Mr PERKINS:** No. I might address the mining side of that very briefly. The history of the uranium industry is well known, and the reserves are fairly well known. The matter of access to those reserves has been a matter for debate in the nation for a long time, as you are aware. Suffice to say, in uranium access that will depend on which way the nation sees that debate going.

In coal, there are a couple of areas where coal has been found, but there is not, to my understanding, enough knowledge to make any firm declaration as to what the coal reserves are. Predominantly that has been because it is deep and there are some areas, for instance, in the Simpson Desert where it is kilometres deep. In the context of coal in Queensland and New South Wales, for instance, it would not be competitive. So, there has not been much effort put into finding that coal reserve.

In the energy we are talking about - oil, gas conventional or unconventional – as I mentioned before the areas we do know about have been explored. For instance, in the Beetaloo Basin which has had quite a bit of attention, we understand there is an estimate there of some hundreds of trillion cubic feet, or TCF, of potential.

My understanding is the conventional rule of thumb, if you like, with those estimates is you then get into realisable potential. That, generally, is accepted to be about 10% of the overall estimate. For argument sake, if there is say, 200 TCF estimated gas, you might realise 20 TCF.

To give you an idea of scale, I think the Ichthys runs to about 11 TCF. If Ichthys, at 11 TCF, could build the infrastructure they have yet we could potentially recover 20 TCF out of the Beetaloo Basin within striking distance of infrastructure like the existing pipeline, you can get some scale on the economic impact that would have on the Northern Territory if it was realised.

**Mr WOOD:** This might not be a question for you; it might have been for Power and Water. In the United States the argument is those gas resources should reduce the cost of energy. In America, that might be heating not so much electricity. If you are saying you would put it into the gas pipeline, we are already in a contract with ENI so from a local prospective of cheaper electricity that is not likely to happen because we already have a fixed gas price.

**Mr PERKINS:** The answer to that question is we do not know yet; however, I make the observation that the production scale-up times with these wells are in the vicinity of up to 10 years. It is a matter not so much in the near future or the medium-term future, it is the longer and long-term future of energy in the Northern Territory and, indeed, Australia that we are talking about.

**Mr VATSKALIS:** We are not going to get cheaper electricity because Power and Water are already tied up to a contract, but you might get cheaper resources for let us say a chemical industry - Dow Chemical Company or anyone else.

**Mr WOOD:** Even local communities could hook into it to get cheaper electricity. We are talking about if it was drilled near a number of remote communities. They might be able to switch into that instead of diesel.

**Mr McCARTHY:** My dream is the Northern Territory starts to sell that to the east coast. If McArthur River, Beetaloo or Georgina realise the potential they are talking about then, logically, we would be an energy supplier to the east coast. That is the big picture I tell my constituents about.

**Mr PERKINS:** At the risk of speculation, the committee might like to consider forming an opinion about connecting pipelines in the context of the real expected shortages of gas in the eastern states, both the domestic and export, and take that view based on a long-term assessment of the economic potential available in the Northern Territory.

**Mr VATSKALIS:** Scott, for a long time I have been thinking about Moomba and connecting our pipeline more to the south, but also considering how much gas is in the Kimberley and the fact it is a long distance to bring it anywhere from the Kimberley to Perth. It is shorter to bring it to our side. Interconnecting pipelines can provide the nation with gas whenever.

**Mr WOOD:** Is that gas suitable for cooking and drinking.

**Mr PERKINS:** Yes, natural gas. Generally speaking, the specifications of the gas that comes out of the ground can vary considerably and you see the industry talking about this. Generally speaking, you will find there is a specification the gas has to meet to be in the pipeline. There are various methods of cleaning the gas up or creating the specification that goes in the pipeline so it is reasonably consistent. That creates a number of by-products potentially, but generally what happens is it is then split up into the usable components at its destination or at a wholesaling point somewhere.

**Mr VATSKALIS:** All the liquids could be taken out. Methane increased by (inaudible) elements.

**Mr WOOD:** On another point, what is the gas we use in vehicles? Is it LPG?

**Mr PERKINS:** There is potential there I believe, yes.

**Mr VATSKALIS:** That is petroleum gas.

**Mr WOOD:** Yes, that is right. One of the areas we need to look at, besides energy for power, is energy for transport and whether there is potential for this product to be used for long distance transport for cattle and goods going up and down the highway, and whether there are opportunities for not having to rely on diesel and petroleum.

**Mr PERKINS:** My understanding is there is the potential for that, but I would recommend the committee calls somebody who knows the technical application of the gas product. While the

department would be interested in developing that in conjunction with the Department of Business for instance, our regulatory environment would cease prior to that being produced.

**Mr VATSKALIS:** In Perth, Athens, and other cities there is compressed natural gas for buses. We definitely need an expert because I do not believe it is as efficient as diesel. However, a train can have behind it quite a quantity to allow it to come from Adelaide to Darwin.

**Mr WOOD:** You could have LNG – cleaner still.

**Mr CHAIRMAN:** That has covered some of the opportunities. What about key challenges? What does the department see as challenges regarding exploration, development and production of energy resources? What do you see as challenges?

**Mr PERKINS:** The stand out challenge in the Northern Territory is the absence of infrastructure, and in that sense there are two major considerations. One is the creation of infrastructure which has its own challenges, and the other is creating a competitive environment which overcomes the distance. In other words, the regulatory challenge, if you like, and the challenges in managing the industry on the ground need to put us in a position where we are much more competitive than other jurisdictions so they would come here instead of going elsewhere.

**Mr CHAIRMAN:** You spoke about the regulatory restrictions. Are we hoping to overcome some of those in the review of the legislation we were talking about earlier?

**Mr PERKINS:** Absolutely. There are two very broad reasons for that review. One is the legislation itself dates back some years, and we are investigating three acts to see if we can have one act with those. In the sense those acts are dated, they are due for review. The other one is, as you suggest, ensuring that the Northern Territory is a competitive jurisdiction.

**Mr McCARTHY:** In the exploration Falcon is doing in the Beetaloo Basin, for instance, as on Maryfield, the north-south pipeline is existing infrastructure. Let us assume – speculation - the reserve proves to be commercial, what does the infrastructure look like in the wellhead and then the connecting pipeline to the north-south pipeline? How expensive - what is a ballpark for that?

**Mr PERKINS:** I might paraphrase a colleague of mine in the drilling industry to give you an idea of how expensive. He said, in regard to technology, at the top of the tree of technology advancement is NASA, second is Defence, and third is the oil rig drilling technology, particularly offshore. The short answer is it is a very expensive exercise.

In regard to what it looks like, that is a very good question. For instance, an exploration well area would probably be a cleared area no bigger than half a dozen house blocks, and when that was done with it would be rehabilitated back to bushland. Given good rehabilitation, you would not notice the difference.

A production well would start off about that size, but once it was producing would come down to a couple of house blocks size area with probably about a 20 foot high structure in the middle of it and pipelines running out.

**Mr McCARTHY:** When talking about that area and the exploration for this alternative gas, we are talking drill sites up to 2 km?

**Mr PERKINS:** Deep?

**Mr McCARTHY:** Two thousand metres?

**Mr PERKINS:** Again, I will have to generalise, but generally in the Northern Territory we are finding it is somewhere between a kilometre and 2 km they would need to go.

**Mr McCARTHY:** In regard to rehabilitation of that exploration site, what happens to the drill hole?

**Mr PERKINS:** I will digress a little and talk about the structures within the well. They generally start off at a standard size of about 17½ inches at the top, then there is a triple and double casing affair that goes down about 500 m. Those holes then go down to about a nine-inch hole, sometimes a six-inch hole. Then, at the bottom, they go laterally up to a kilometre, as I said before.

Once those wells are finished, they are pumped full of concrete the, as our regulations allow for a certain level below ground level, it is chopped off and filled. Effectively, you a steel tube full of concrete all the way down to the end at the finish of the well, and some metres of rehabilitated earth over the top.

**Mr VATSKALIS:** Scott, on the issues about the impediments on exploration and everything else. You mentioned before about people not being able to have access. In our own department you put a submission in with regard to the *Native Title Act*, section 4. Can you elaborate on that?

**Mr PERKINS:** This is about access to land generally?

**Mr VATSKALIS:** Yes.

**Mr PERKINS:** I will start off at the easy end first, where you have, say, a pastoral lease. We do not regulate the contact between the company and the landholder and, generally, leave it up to the two parties to get together and work out a mutually satisfactory solution. That has ended up with some advantage to some people with new roads and so forth. By and large, my sense is that is working relatively well. We are of the opinion that we would not regulate that unless we had to.

Native title access is a well-known path. There are as many instances of easy access with native title as there are with difficult, and that pathway is well-known. Similarly, with the Land Rights Act land, there are some easy and some difficult cases.

The characteristic of the Land Rights Act land, though, that is different from minerals title is the petroleum titles are a much bigger land area. The difficulty land councils have under the existing legislation is getting consent from many clans at the same time. Our solution to that is to examine whether or not we can divide those tenements down into smaller chunks in order to make them more manageable under the current land rights legislation.

**Mr VATSKALIS:** The submission the department put to the review of the act - what was it?

**Mr PERKINS:** You are outside the scope of the notes I researched for this meeting, I am afraid. However, irrespective of what the submission was, the report itself is now out, and we are dealing with that as it is.

**Mr VATSKALIS:** Okay. I will come back to you about that.

**Mr PERKINS:** I make the observation, though, that the land councils and us work very closely together and we have a pretty good relationship.

**Mr WOOD:** Just ...

**Ms LEE:** I was just about to say, sorry, through the Chair to Scott, when it comes to discussion, even with the pastoralist, and the land and the miners, and stuff like that, NLC would still be involved, would it not, even if it is under native title?

**Mr PERKINS:** The NLC does ...

**Ms LEE:** Because NLC's job is actually to do the negotiations in respect to the traditional owners.

**Mr PERKINS:** On Land Rights Act land and ...

**Ms LEE:** And native title.

**Mr PERKINS:** ... and, in some respects, native title.

**Ms LEE:** Yes, some native title. Yes, just to clarify that.

**Mr CHAIRMAN:** Have you the name of that report, Scott, or where we can get a copy of it?

**Mr PERKINS:** The title is a review of Part IV of the Land Rights Act.

**Mr VATSKALIS:** Yes, that is it.

**Mr PERKINS:** Justice ...

**Mr CHAIRMAN:** That will do, we have enough there.

**Mr PERKINS:** My memory is failing me, Mr Chairman.

**Mr VATSKALIS:** Yes, that is okay. Find out and forward it to us, and we can follow it up.

**Mr CHAIRMAN:** Investing, too, was ...

**Mr WOOD:** Sorry, I was just going to ask the following the question from Larisa. I think 40% of the land mass is Aboriginal in the Northern Territory, so there is fair bit of land that, obviously, explorers would like to explore. On my wife's side, there has been some talk about exploration out near the Perron Islands and what immediately happens is that, 'oh no', and I can understand that, but what I feel is there is a lack of education and understanding of the processes and what would happen if these processes went any further? Because the average person - not the average person, but I just know from my family's side they would not have any understanding what this all meant. I know you say, 'We talked to the Northern Land Council, maybe it is there job to explain it a bit more', and I know you are saying you are having meetings up and down the track, which are more about fracking, I presume than anything else. But there are communities who are not in touch ever with mining companies and all of a sudden find out there is an exploration licence nearby. I do not blame them for the fear of God coming down on them, thinking that is going to ruin their country. If you do any more work in that area, try and at least tell people what this whole exploration issue is about.

**Mr PERKINS:** We plan to take these presentations out to the communities as well, and we are in talks with the Northern Land Council about that. I might also say that I believe you are right; the lack of knowledge causes interest and in some cases fear. It is interesting to show a photograph, like I said before, about an exploration drill pad which is literally half a dozen house blocks size and people are surprised at the small size and the small impact that has when they see it. So it is worthwhile taking those presentations out.

**Mr WOOD:** Obviously, and I have said in parliament just recently that fracking is an issue. You cannot get away from that. I go past the 15 Mile community in my area, and at the moment, you

see 'no fracking' signs along the fence. I do not know who put them up there, but they are there and people can see them. There have been anti-fracking meetings in the rural area and it is obvious that there is a particular view point. Have you got a program to be on the front foot - longer than just these meetings - about letting people know about these issues so people can have an educated opinion about whether they are for or against fracking.

**Mr PERKINS:** Absolutely, and I met with APPEA's Darwin representative yesterday exactly on this issue. They are currently contemplating how they might run out a full community engagement program on exactly that.

**Mr WOOD:** Because if we are talking about energy and are saying that we have got this much TCFs in the ground and then if there is a move to stop that happening, and politically, these things can happen, then that will be locked up unless there is a proper debate.

**Mr PERKINS:** Absolutely.

**Mr CHAIRMAN:** Invest NT was discussed this morning and the core program. What sort of strategies are in place to them at duplication of effort across those? What are the links between them?

**Mr PERKINS:** Sorry what was it?

**Mr CHAIRMAN:** Invest NT, which was done by the Office of Asian Engagement, Trade and Investment.

**Mr PERKINS:** Okay. This has been a discussion between us and various other people are involved in - I guess you might call them - trade missions. Right at the moment we cooperate very well. For instance, on the current round of ministerial and Chief Minister's visits into Asia, we have coordinated those programs. The Chief Minister, in fact, is opening a seminar for the minerals and energy side in Japan on, I think, 23 October.

**Mr McCARTHY:** What do we present on? Do we present that data we collect through the core program and the geological and geographical data for these sorts of events?

**Mr PERKINS:** In some cases, yes. This particular round is tending to have two themes to it. One is the investment theme and the other one is the geological theme and that has come about because there is an Australian geological survey team around at the same time. That cooperation extends through to the national level as well.

**Mr McCARTHY:** In terms of the Territory then, do we stick to the three-mile limit? Who deals with the potential of the offshore energy reserves?

**Mr PERKINS:** The Commonwealth does that. There is a thing called Team Australia which is an informal grouping of the geological survey teams in each state and Geoscience Australia and they tend to want to project a single view of the Australian geo-survey knowledge and do a very good job at it. Part of that is in Japan.

**Mr CHAIRMAN:** We understand in recent years the department played a key role in the administration of the Australian government's renewable remote power generation program. Do you have any information on the Northern Territory's Cattlemen's Association renewable energy options project and outcomes?

**Mr PERKINS:** Directly no, however we cooperate with - we are getting a view on the remote generating issues within the Northern Territory. I would make the observation this has generally been run out of Power and Water and, in particular, the IES branch of Power and Water to date. It is transferring into the department with the structural adjustment of Power and Water. Precisely how that will run out is still a matter for discussion.

**Mr CHAIRMAN:** We will come back to that question next time.

**Mr WOOD:** In relation to the Cattlemen's Association and fracking, have you had meetings with the Cattlemen's Association on that matter?

**Mr PERKINS:** We have. I attended the APPEA Onshore conference in Adelaide last week, and Luke Bowen from the Cattlemen's Association was speaking there. He gave an excellent talk and he and I then resolved we would continue to meet on exactly this issue.

**Mr WOOD:** You had a paper which I must admit I cannot find, but you gave a paper to the Cattlemen's Association on fracking.

**Mr PERKINS:** Yes, I spoke to the Katherine branch some months ago.

**Mr WOOD:** Would the paper be available for the committee?

**Mr PERKINS:** It would be doing it a great service to call it a paper, Mr Wood.

**Mr WOOD:** It may not be the one I saw because it had eight or nine pages in it, but it clarified a few issues.

**Mr PERKINS:** You might be referring to a presentation given by Alan Holland to the Cattlemen's Association about two months ago now, but we can provide a copy of that paper, yes.

**Mr WOOD:** Okay.

**Mr McCARTHY:** Georgina Downs features in the discourse around alternative gas. Where, geographically are any exploration leases currently being looked at?

**Mr PERKINS:** It is fair to say there is very little of the Northern Territory that does not have an exploration lease over it. Generally speaking, the major interest is in the Beetaloo Basin or near to it, and the McArthur Basin which is north of McArthur River upwards past the Roper. There are some major activities going on in the area north of the Plenty Highway - between the Plenty and Barkly Highways in that Georgina Basin area.

**Mr McCARTHY:** Would it be on Lake Nash, Georgina Downs or ...

**Mr PERKINS:** I would have to refer to precisely where they are, but it is in the vicinity of Lake Nash and Georgina, yes.

**Mr McCARTHY:** It would be black soil country?

**Mr PERKINS:** Yes, and across into Queensland as well – in that vicinity.

**Mr WOOD:** Again on fracking, the minister mentioned there will be some changes to the directions in relation to how fracking occurs in the Northern Territory. I presume he also means the regulations. Is that occurring? When will that be out for public commentary?

**Mr PERKINS:** It was called a schedule and is now a regulation. It is currently under way and, once published, will pretty well match what is happening in Western Australia now. That covers some of the more contentious issues such as disclosure of chemicals that are put down the wells.

**Mr WOOD:** Okay. If you these directions or requirements for companies to drill, first of all, does the company have to get an environment impact statement before it does fracking? Second, do you have enough staff members to go out and ensure the regulations are being kept when drilling occurs, or will you just be hoping the company will give a tick and say 'We have done it according to the rules'?

**Mr PERKINS:** The EIS question is, generally speaking, yes. The answer to the staffing question is we are examining some options right now. The unfortunate fact about the Northern Territory is it is difficult on two counts: to have people shift to the Northern Territory but, more importantly, to be able to afford all the skills we need to do what you say, bearing in mind the wages which are being paid within the oil and gas industry.

That begs the question, of course, of what we do about it. That is actively under consideration and options include having expert panels located, I guess, at the end of a telephone or computer somewhere, we refer the engineering designs and things to.

We have a program of current staff; they are very active out in the field. I must say it gets to a stage sometimes where they are stretched.

**Mr WOOD:** I have learned from recent discussion in the UK that their department had not enough staff, they drill a hole and they wait for the response from the company to say whether they have done all the right things. One of the big issues is the casing, especially if you are going through an aquifer. I am not sure how much that applies in the Beetaloo, but there are moves to do gas exploration in the Top End and, obviously, you will be going through some major water aquifers. The concern people have is we want to ensure any drilling through that aquifer is totally sealed from any gas that comes back up through the – or contaminated water that comes back up through the pipe.

That is the concern I have; that because it is such an issue that is out there, the processes are guaranteed to do what they say they will do and protect the water resource from any pollution.

**Mr PERKINS:** I make the observation that is our concern as well, obviously responding to the wider community concern about that exact issue. We believe our regulations provide an equivalent protection to what exists anywhere else in Australia.

**Mr WOOD:** Thanks.

**Mr CHAIRMAN:** At our last meeting, the member for Casuarina - tell me if I am wrong - asked if we could get a copy of all the titles that are currently around. Is that possible, or a list of them that is readable?

**Mr PERKINS:** Yes. I have some in front of me.

**Mr CHAIRMAN:** That would be very good.

**Mr PERKINS:** Yes, we can provide those.

**Mr CHAIRMAN:** Okay. Any other questions?

**Mr VATSKALIS:** Not from me.



**Mr WOOD:** Do you want to have that tabled just so it is ...

**Mr CHAIRMAN:** Yes. Could be get that tabled, then we can get it copied?

**Mr PERKINS:** Yes, Mr Chairman.

**Mr VATSKALIS:** Are they both for oil and gas?

**Mr PERKINS:** There is no distinction between the tenements.

**Mr VATSKALIS:** Okay, so one ...

**Mr PERKINS:** They are all petroleum tenements.

**Mr VATSKALIS:** Okay.

**Mr CHAIRMAN:** If there are no other questions from these people here, is there any other issues you would like to raise or believe we should take into consideration, remembering, of course, we will definitely be getting you back? This is not your only opportunity.

**Mr PERKINS:** I guess my message is, as I said before, I ask the committee to pay particular attention to the infrastructure issue. It is almost the only limiting factor to good development within the Northern Territory. I would be happy to contribute to the debate on that, in particular to have a look at the viability of interconnecting infrastructure with the eastern states.

**Mr WOOD:** Can I ask a question in relation to the number of licences out there? Can you break them up into the companies? In other words, could you tell us not only which companies are exploring the Northern Territory but whether they are overseas investors or whether they are Australian investors?

**Mr PERKINS:** We certainly can and the table that we have here, which I will table for you, lists the applicants and the operators. We could also, I believe, add their development partners. What tends to happen is that an exploration company will find something, or will find a good show and start to attract the major investor such as Total, Shell, Statoil - that level of company.

**Mr WOOD:** We know Total is an overseas company. Is it easy enough for us to distinguish overseas investment as against Australian investment when you are looking at those companies?

**Mr PERKINS:** I believe we could distinguish those for you.

**Mr HIGGINS:** I will just get them copied, if that is all right?

**Mr PERKINS:** Mr Chairman, I might just say that this table itself does not have those other partners in it but we can provide that information later.

**Mr CHAIRMAN:** Yes, if you could. Other than that, thank you very much for your time.

**Mr PERKINS:** I would like to, Mr Chairman, thank the Committee. It has been a very instructive period and if we can help out I would be delighted to do it.

**Mr CHAIRMAN:** Thank you. We will start again at 3.30pm.