



LEGISLATIVE ASSEMBLY OF THE NORTHERN TERRITORY

12th Assembly

Committee on the Northern Territory's Energy Future

Public Hearing Transcript

2.45 pm – 3.30 pm, Friday, 14 February 2014

Litchfield Room, Level 3, Parliament House

Mr Gary Higgins, MLA, Chair, Member for Daly

Mr Kon Vatskalis, MLA, Deputy Chair, Member for Casuarina

Members: Mr Gerry McCarthy, MLA, Member for Barkly

Mr Gerry Wood, MLA, Member for Nelson

Mr Francis Kurrupuwu, MLA, Member for Arafura

Witnesses: Mr Robbert de Weijer: Chief Executive Officer, Armour Energy Ltd

Mr Roger Cressey: General Manager Operations and Projects, Armour Energy Ltd

Mr CHAIR: My name is Gary Higgins, I am the Chair. Thank you for this. Hopefully we will not have any more technical problems today, but if I can get through the formalities we will be under way.

On behalf of the committee I welcome everyone to the public hearing into key challenges and opportunities associated with meeting the Northern Territory's future energy needs. I welcome to the table via the screen to give evidence to the committee Robbert de Weijer from Armour Energy and Roger Cressey.

Thanks for coming before the committee. We appreciate you taking the time to speak to us and look forward to hearing from you today. 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 hearing it is being webcast through the Assembly's website. A transcript will be made for the 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 that the committee go into a closed session and take your evidence in private.

I will ask each witness to state their name for the record and capacity in which they appear, then if any of you would like to make a brief opening statement before we proceed to our questions that would be good. Could you please state your name and the capacity in which you appear? Thank you.

Mr de WEIJER: My name is Robbert de Weijer. I am Chief Executive Officer for Armour Energy.

Mr CRESSEY: I am Roger Cressey. I am General Manager for Operations and Projects for Armour Energy.

Mr CHAIR: Thanks for that. Mr de Weijer, would you like to make any opening statements?

Mr de WEIJER: Yes, I would much appreciate it. Thank you very much.

Thank you for the opportunity to engage with us during this public hearing, we much appreciate that. Briefly, I would like to talk about who we are, what we have achieved so far, what our goals are going forward and what we would recommend and/or need from the government to help mature the oil and gas industry in the Territory.

We are a relatively small ASX-listed oil and gas exploration company. We have tenements in the Northern Territory, Queensland and Victoria and our tenement position in the Northern Territory is very large. It is about 125 000 km², and we still own 100% of that tenement position and they are proven petroleum systems. People drilled in our tenements 20 or 30 years ago and came across oil and gas, so that provides a great starting point for us. We have a very strong and committed board who have a lot of oil and gas experience in Australia and abroad. Apart from trying to find as much oil and gas as we can, we are also very committed to doing that in a sustainable way in line with the most stringent HSE policies and also in a way where we add value to the local communities in the Territory.

What have we achieved so far? We are a relatively young company only listed a couple of years ago. Since that time, in the Northern Territory alone we have already drilled five wells and I am very pleased to say it has been "drilling and hitting", as we call it, rather than "drilling and missing". Each of those wells gave us very good signs of hydrocarbons, so we are very encouraged by what we have seen so far. Our most successful well was a well called Glyde 1 that produced more than 3 million standard cubic feet per day. That is, by any measure, a very good volume of gas.

We pride ourselves in having very good relationships with Aboriginal communities and see that as a very important factor. We are not about ticking the boxes in a native title agreement, but we are really about trying to set something up that is sustainable and creates jobs and revenue streams for the Aboriginal communities over the longer term. We are very dedicated to doing that, both in the Northern Territory and Queensland I might add.

What are our goals going forward? We have probably been the most active exploration company over the last couple of years in the Northern Territory and we would like to maintain that position. We are very keen to continue to explore and appraise our acreage and build on the successes we have achieved so far. We want to implement opportunities to produce and sell gas both for the short and long term, and there are a number of examples where we can start producing gas in to the domestic market.

For example, the McArthur River pipeline goes right through our tenement so we could produce gas into that pipeline in a relatively simple manner. We could provide gas for local power generation for local communities. Our longer term plans are around selling larger volumes of gas, and that could potentially go to the Darwin LNG project operated by ConocoPhillips, or it could even be what we call a greenfield LNG project out of the Gulf of Carpentaria. It is an option potentially available to us.

There are some new initiatives around compressed natural gas as we call it where you create “a virtual pipeline”. You effectively produce gas, compress it, put it on the back of a truck and send it to a mine where they can use that gas for power and generation. We are very much about domestic use of gas, but if there are opportunities to export gas we are open to that as well.

For us to do that and move relatively swiftly there are a number of things we recommend to the government. First and foremost it is about effective legislation - finding the right balance between minimising red and green tape and efficient processes. In our experience Queensland is good place to look. We feel they have found a pretty good balance in achieving that.

Secondly, exploring and appraising gas. The tenure periods we need are, to a large extent, a function of the type of reservoirs we are trying to explore. For example, a shale type development takes a lot longer to explore and appraise than a more simple conventional type development. We very much encourage the government to take it into account when tenements are issued to oil and gas companies. South Australia is a good example to look at there.

The last point I would like to mention is transparent leadership and support from the government to really make it known to all stakeholders that an oil and gas industry is important for the Territory and be very vocal about that. From my experience in New South Wales I have learnt and come to the conclusion that strong public government support is a key factor in getting local communities on board and making sure people understand why it is important to develop an oil and gas industry in a way that is sustainable, where it is done in a very responsible manner, and how local communities can also benefit from that.

With those three points I would like to conclude this brief introduction. Thank you.

Mr CHAIR: You were talking about gas down there, and I presume when you mention shale you are talking about the reserve down there being unconventional gas?

Mr de WEIJER: That is correct, yes. We are targeting both a conventional and unconventional plays. Typically, the unconventional play is much larger. For the Northern Territory we are looking at roughly 18 trillion cubic feet of what we call prospective resource. It takes a lot longer to develop but, over and above, we are looking at more conventional plays that are smaller but easier and quicker to develop.

Mr CHAIR: Okay.

Mr McCARTHY: Gerry McCarthy here, Robbert, that was my question. That Glyde 1 well near Barney Creek, is that a conventional gas source?

Mr de WEIJER: That is correct, yes. I can get some details, but is about 600 m to vertical depth and we drilled a lateral section as well of about 200 m. It is a relatively shallow well so, therefore, very cost effective and it is a conventional gas play, that is correct.

Mr McCARTHY: Is that the only well site you have drilled in the area around Cow Lagoon and Batten Creek?

Mr de WEIJER: That is where we have drilled the majority of wells. Roger, do you want to respond to that?

Mr CRESSEY: The Glyde Well is the southernmost well we have drilled and, as the crow flies, I am guessing it is about 100 km south of McArthur River mine. The Cow Lagoon well is the northernmost well we have drilled so far, and that is probably about 30 km or 50 km northwest of the McArthur River mine. We have drilled other wells between those two wells, and they are on slightly different structures but in the same type of basin formation.

Glyde well, being a conventional well, is what geologists describe as in a brecciated zone - a cavern or a cave formed inside the formation. That does not mean it will be purely conventional because there is potential for the rock around that cave, or the breccia, to be some type of shale as well and that may hold some gas within the rock as well as the gas within the brecciated zone. That is why we are looking for the conventional and the unconventional; they may well be right beside each other.

Mr McCARTHY: That is interesting. With the MacArthur River pipeline - if you were to put gas into that pipeline can it go back the other way to the main line?

Mr CRESSEY: Yes, absolutely.

Mr McCARTHY: I live in Tennant Creek and we hear a great deal of talk about your operation. It is certainly an exciting time for you guys there.

Mr de WEIJER: Yes. Obviously, if we put gas in that pipeline it would open up a number of different commercial opportunities, but it is done all over the world where you have gas swabs and you make sure the pipeline takes the molecules and where they end up is all part of a commercial arrangement. It is certainly one of the items we are looking at for the shorter term.

Mr CHAIR: What steps do you have to go through for evaluation of Glyde One well, and what time frames are there to getting something like that into production?

Mr de WEIJER: For the Glyde area, we would have to do longer term production test to see what the sustainable flow rate would be from the Glyde 1 well. We are in the process of planning a potential appraisal program which would include drilling another five to seven wells in the same Glyde area to see what type of appraisal results we would get from that.

Assuming that is successful, there are a couple of ways forward. The shorter way forward would be to accumulate that gas from those five, six or seven wells, hook it up to what we call a compressed natural gas facility, , compress that gas and then, basically, truck that gas to any potential customer, and that could even be to the McArthur River pipeline.

That is one way to monitor that gas relatively quickly. If we start when the Dry Season kicks in it would be probably two to three years ...

Mr CRESSEY: I would say about three years.

Mr de WEIJER: ... to really get that going. There is also a model where we go bigger than that and not only use that Glyde area but also go further north and develop a larger project – an investment of roughly \$200m – and that could provide potentially 9 PJ per annum into the Northern Territory market. That is a much larger project and obviously would take longer as well. Subject to funding and finding customers for that gas, that would be worthwhile considering and we have done some conceptual work around that.

Mr CHAIR: In your opening remarks you were talking about legislation and mentioned both Queensland and South Australia as having some good legislation. Can you clarify what is it about the current processes in the Northern Territory that has proven challenging and how that has impacted on your project's implementation?

Mr de WEIJER: Thank you for asking this question. Perhaps it is best to illustrate it by some examples. I have been in the industry for 25 years and have never seen a department keeping such a close eye on the day-to-day operations. Whilst that may be still doable when there is only one or two rigs operating in the Territory, it will become extremely challenging when you have four or five companies drilling a number of wells.

An example is when are doing exploration work. So let's say we are happily drilling away, but because it is exploration we are not quite sure where we find certain structures, so there needs to be some flexibility around where we cement the casing. In my experience, having been in the industry for a while, that is very much left to the operator. If the operator wants to set that pipework or casing 2 m or 5 m deeper or shallower, that is fine. In the Northern Territory we have to seek approval to do that. That is a very detailed type of approval which does not add much value at all.

We have had discussions with the department about that and have given some informal advice as how we believe things can be improved. You can imagine if you have 10 or 20 rigs drilling wells, and for every set of casing the department needs to give an approval of where that casing is to be set, you will need a lot of people to administer that. That is one example where we believe the way Queensland is set up is a lot more effective. Roger, would you like to build on that?

Mr CRESSEY: In summary, the Northern Territory regulatory requirement for us to get an approval to drill a well is a very prescriptive requirement where we have to detail everything. The fact we are effectively doing wildcat wells means as soon as we start drilling we will find things we have not been able to accurately predict. The detail in the drilling of the well will be different than what we have detailed in our well application. Any deviation from that application requires resubmission and re-approval, which is the example Robbert was putting forward before.

In Queensland, once we have the tenement granted we simply do online notification to the department that we plan to drill a well and then the *Queensland Petroleum Gas Act* is quite descriptive on what we need to comply with and we are audited against the act. If we do not comply we are held up, but it is a self-regulation process

where once we advise the department what we are doing - we have to make sure that we comply with the act - we make the decisions as we are drilling the well for the best outcome. It is a much different regime and much better for us to work with.

Whilst we have a great relationship with the NT department and are working exactly the way they want us to, we feel there is opportunity for that to be improved, particularly when the volume of work is looking like it will increase in the Northern Territory.

Mr de WEIJER: On the South Australian side I was more referring to the tenure period in the context of exploring and appraising an unconventional plate. Typically, it takes 10 to 15 years to really get it from start to a point where you can really be confident there is an area to be developed. In South Australia they are looking at three times five year tenements for unconventional prospects. That is roughly in line with what I have seen elsewhere in the world, and there is an opportunity for the Territory to come up with tenure periods which also reflect the type of gas development that is being explored, whether it is unconventional or conventional. We are having similar discussions with the Queensland government about that topic.

Mr WOOD: Roger, you said the Queensland system was self-regulatory, but do they send out inspectors every now and then to check what you are saying is correct? We have lost you there. I think we have lost you.

Mr CRESSEY: They do, particularly when you are a new player like we were. Last year in Queensland we had inspection fairly early on in our program and a follow-up inspection later on as well. When you are new to the industry, as Armour Energy effectively was - we had our tenement granted at the back end of 2012 just before Christmas and by May 2013 we started drilling. We had inspection about two months after we started, then another one another two months roughly after that. We would expect them to inspect us again this year as we are drilling again.

Mr de WEIJER: That will often be done on an ad hoc basis, almost unannounced or certainly at very short notice.

Mr WOOD: That is a better system than what we have in the Territory at the moment.

Mr CRESSEY: The issue with the Territory is the amount of detail required to be documented for exploration drilling is extremely detailed and to the point of being very accurate, and when you are doing a wildcat well the geologists have some idea of what we are looking at in the depths, but the documentation for the well drilling approval is specific that you do certain things at certain depths and are not able to vary what you do without resubmission and re-approval of your well program.

Because you do not really know how deep things are it means when you might want to stop drilling to run casing, run cementing or plug and abandon as opposed to continue with a potential production installation, you have to go back at each of those steps and modify your document, your well program and then the department has to review and approve it. We have a relationship, and I imagine the other operators also have a relationship, with DME such that phone calls and e-mails can get fairly rapid responses, but it still requires that full formal process to be completed very promptly so everything is the way it should be with the regulation. We certainly want to make sure we comply with the regulations so we do all that.

With respect to what we do in Queensland, we document exactly what we do. If we change from our plan, and invariably you do because it is an exploration well and will not be exactly as you planned, it is rare - then we document the as-built drilling operation and how it is completed. That documentation is available for review and audit by the department as it chooses. Again, they audit us while we are doing the work as well.

Mr de WEIJER: I would like to add the department has been extremely helpful.

Mr CRESSEY: Yes.

Mr de WEIJER: They go out of their way to respond as quickly as possible. Sometimes these things happen in the middle of the night because we operate 24 hours a day. You can understand there are some practical issues there, but what I am most concerned about is if you have two or three rigs operating in the entire Territory that is probably manageable. However, we all believe it will be much larger, there are a lot more operators talking about drilling wells, and I believe it will become very difficult to manage from the department's perspective.

Mr McCARTHY: Gerry McCarthy here, Robbert. What do you think about the government's new amendment of the use it or lose it principle?

Mr de WEIJER: Personally, I do not have an issue with that. I think as long as the tenement period and the work commitments are compatible with the type of exploration and appraisal work that needs to be done, then as a

government you want to make sure these operators do what they have promised. I am all about delivering on promises. Unless there is a very good reason why something simply cannot be achieved maybe there needs to be some room for exceptions but, as a general rule, use it or lose it, I do not have an issue with at all. I can understand why a government would be advocating that.

Mr McCARTHY: Sure. You have a very significant footprint here in tenements across the Barkly.

Mr de WEIJER: Yes.

Mr McCARTHY: There are some challenges there.

Mr de WEIJER: Yes, we have a very significant footprint and are very pleased with that. There is a lot of work to be done and we are very keen to do that work. We are confident we can do the work that needs to be done as part of our commitment.

Mr McCARTHY: Good luck.

Mr CHAIR: A number of the other submissions have noted the availability of infrastructure has had some significant bearing on the extent and pace of development in the Territory's onshore oil and gas. Do you consider that to be a major problem, and what priorities do you see for infrastructure development in the Territory?

Mr CRESSEY: We are familiar with what exists and are working and planning our work in accordance with what exists. The fact the McArthur River pipeline runs through our tenement gives us an opportunity to tap fairly quickly into existing infrastructure. The Carpentaria and Tablelands Highways run through our tenements so we have reasonable road access. The Wet Seasons obviously restricts what we can do, so we are not operating in the Wet season at all. But, if we get the opportunity to become a commercial operation we will have to start looking at some infrastructure that will enable us to be a 12-month operation.

There is a challenge there because even those highways are inundated from time to time, but there are ways around that and we can work with it.

Mr de WEIJER: If I can come back to the use it or lose it policy, what is important to companies like ours is to have regulatory stability so the sovereign risk is as low as possible, so the goal post does not change half way. That is very important, and I have worked in areas where that was not the case and the board will then say, 'There is too much of a risk here, we will put our money somewhere else'. The more stability the government can provide the better it is for the industry, and the more motivated the industry will be to invest and drill wells.

Mr CHAIR: Another issue raised in a lot of submissions is access to land and compliance with the requirements of the Aboriginal Land Rights Act, native title, sacred sites etcetera. Would you like to comment on your experience in relation to land access and compliance with this type of associated legislation?

Mr CRESSEY: To date we have built a good working relationship with the NLC. We have also established a good relationship with the native title proponents in and around our operations. That has taken some time and we have a lot to learn yet in that regard, but we are starting to get a good understanding of what we need to do. We have managed to provide employment, to a degree, for people while we are doing our drilling.

We have had some young people do some trainee work around the rigs supporting our geology guys, and we have had subcontractors do a lot of our site preparations using local operators on their machines. We have tried, as Robbert said earlier in his introduction, to engage local people and that is a big part of establishing the relationship which is a whole part of the land access agreement as well. If you, in your land access agreement, say you will do some employment and training, you need to do it. There is no point saying you will do these things without doing it. We are keen to continue that.

In getting the cultural heritage clearance done, we have also been learning and working with the NLC on that. The amount of clearance we need will increase as we go forward. We will need more sites cleared every year we go forward as we are able to do more wells. Perhaps next year we will need more sites cleared so we can get that access. The fact the traditional owner group covers a large area - not just our tenements, but other companies' tenements - is perhaps going to put some excess load on the available time and ability of the NLC, for example, with the native title proponents to do the cultural heritage clearances.

We are keen to make sure we advise, as early as possible every year, the NLC what we are looking to achieve and work with them to get those clearances done. So far we have not had any issues, but we are cautious about how it is going to work out going forward.

Mr CHAIR: Earlier, you spoke about legislation - red and green tape - and you cited Queensland as a good example. Is that in specific reference to the Gas Fields Commission they have set up?

Mr de WEIJER: No, I think it is more in relation to what Roger was talking about earlier around getting approvals for certain details. In Queensland it is a lot less prescriptive. In relation to Gas Commissioner, I think that is on separate topic. I think it is very effective. We believe the Gas Commissioner can provide a very effective bridge between the industry, local communities and government. It will always be an independent voice. If the Territory is considering something similar I would certainly support it.

Mr CHAIR: Okay.

Mr WOOD: I was reading page 4 of your report where it said:

In June 2013 Armour Energy signed a heads of agreement with APA Group that includes new infrastructure and/or pipelines expansion from Armour Energy's Northern Territory permits to deliver gas to end markets in Queensland and elsewhere on the east coast.

Could you say how far that has advanced and what is the closest gas pipeline you can connect to in Queensland?

Mr de WEIJER: Obviously, in the larger context it is still relatively early days for us. The first pipeline that probably would be built through an agreement with the APA will be a pipeline from our Queensland tenements, that is ATP1087 going south to Mt Isa. An interconnect would be a potential pipeline, but that is much further down the line. It will be a very expensive pipeline so you are talking longer term there - five, 10, 15 years probably, if it is built at all. I understand there is also talk about other interconnectors between the Territory and Queensland.

Mr CRESSEY: Yes, the Carpentaria pipeline runs into Mt Isa is the short answer to your question Gerry.

Mr WOOD: Could gas be exported by ship from Bing Bong or Karumba? Is there any potential for gas by ship out of that area?

Mr CRESSEY: Definitely. One of the things we have been looking at for some time is potential LNG-type projects around the Gulf of Carpentaria. Bing Bong is an opportunity. There is a range now - the technologies around LNG run from micro-LNG plants up to the majors like they are building at Gladstone on Curtis Island. It is possible to get LNG processing plants build on barges and they can be beached or moored and you can then tranship LNG to larger vessels if you want to. There is a range of possibilities to get LNG. Bing Bong, as you know Gerry, is not far from our field, and in Queensland Mornington Island is close, and there is some deep water access so it is possible we could do something there. Also, it is possible you could go across to Karumba.

Mr WOOD: Okay, thank you.

Mr CHAIR: Those are all the questions we have at this stage. I am sure we will speak to you people again. Is there anything else you would like to say before we finish today?

Mr CRESSEY: No, I think it has been a good discussion. I appreciate the opportunity to answer your questions and welcome some further discussions.

Mr McCARTHY: We will do that at the Heartbreak Hotel.

Mr CRESSEY: Yes, we have spent a few days there.

Mr McCARTHY: I bet you have.

Mr de WEIJER: We appreciate the opportunity to be part of the public hearing, and if there is any further information or questions let us know and we will answer those to the best of our ability.

Mr CHAIR: Thank you very much for your time. We will keep you up to date.