

COMMISSIONER: Good afternoon. This afternoon we return to topic 7, the Expansion of Exploration and Mining, and we welcome the chief executive officer of Toro Energy, Dr Vanessa Guthrie. Counsel.

5 MR JACOBI: Toro Energy Limited is an Australian uranium company based in Perth. From its establishment in 2006 until 2013, Toro's explosion operations were concentrated in South Australia. Currently it holds exploration interests in Western Australia, the North Territory and Namibia, Africa, and is undertaking the approvals process to establish the Wiluna uranium mine in the  
10 north goldfields of Western Australia.

Dr Vanessa Guthrie is the managing director of Toro Energy and holds qualifications in geology, environment law and business management. She's worked in the mining industry for 25 years, having held leadership roles in  
15 mining operations, company strategy, sustainability, indigenous affairs, and environment, and she was the first female mine manager in Western Australia, and so the Commission calls Dr Vanessa Guthrie.

COMMISSIONER: Dr Guthrie, thank you for joining us. If I might start  
20 from your submission, I see that you've moved from South Australia, as I read it, to concentrate as a single mineral mining activity. Do we infer from that that South Australian resources of uranium are mixed with other minerals and therefore somewhat more difficult to commercially exploit?

25 DR GUTHRIE: Thank you, Commissioner. Not necessarily infer that. Toro's history was we commenced as a company in South Australia, listed in South Australia, because our initial assets were exploration tenements in South Australia. Those tenements had no resources. They were highly prospective for uranium, and as the company grew through a two to three-year period, the  
30 strategy of the company was to quickly gain ownership of or some tenements with an existing resource on them. That became available in the Northern Territory at Napperby initially.

Toro has always been a single commodity play. That is uranium. While we've  
35 sought prospective ground in polymetallics like IOGCUs, we've not ever developed them and as we grew the company, we were looking for uranium-specific resources. At that time in South Australia, there were not very many assets available to pick up which actually had declared resources on them, Olympic Dam being obviously in tightly held ownership, and the  
40 ICR deposits around Heathgate also being already tightly held. So what was prospective in South Australia was greenfields exploration sites, and to quickly build the company we wanted to find resources.

45 So we moved to the North Territory. We then onsold those resources which allowed us to then buy the resources in Western Australia at Wiluna, and then

we built the company on the back of having a resource base. We've then been able to continue to build the company.

5 COMMISSIONER: If I might move from the very specific to the general, what are the challenges in moving from prospective mining into creating the mine itself? What are the challenges there?

10 DR GUTHRIE: The first and most significant is exactly that challenge, that is, finding highly prospective ground that you have good geological knowledge of or a geological model that you believe you can investigate, or a hypothesis for a deposit. That's the first thing: quality assets, and quality assets are able to be better identified when you have very significant, well-formed databases around the geology in particular. That's the first bit. The second one is of course  
15 having sufficient capital to then go and exploit your drill program or in fact develop those resources. And the attraction of capital to any part of the mining sector is always dependent upon the current commodity price or the price cycle that you happen to be in.

20 When Toro began, we were in an upwards price for uranium. So highly prospective ground with no resources on it was actually an incentive. Unfortunately, of course the price collapsed, in which case, you needed resources as opposed to highly prospective greenfields exploration. The third thing in uranium in particular is really around a social licence to operate, or having sufficient community support as opposed to community opposition, to  
25 enable you to actually develop the resources, seek investment capital that's not going to be put at risk, because you then have a community that starts to oppose the develop and very often when community - as we are seeing in other commodities now, when a community opposition starts to build a head of steam, you will then find political will starts to fall away as well.

30 And we've seen that in the uranium industry across Australia, not so much in South Australia where we have a well-formed industry, but in other states where we have a shift in policy according to the current political pressure of the day.

35 COMMISSIONER: I certainly want to come back to that community licence, but I don't want to disrupt counsel assisting's line of questioning. So we'll actually start here.

40 DR GUTHRIE: We'll come back - - -

MR JACOBI: Can I just pick up actually from your last answer, and that is, in your submission at page 8 you express a view about issues of political  
45 certainty.

DR GUTHRIE: Mm-hmm.

MR JACOBI: And I'm just interested in understanding what you consider the  
5 relevance to South Australia to be of political certainty in other jurisdictions in  
Australia.

DR GUTHRIE: I think the relevance for South Australia is that the evidence  
that we see in terms of political certainty was perhaps overcome some 30 odd  
10 years ago in South Australia when Olympic Dam was being developed, and the  
relevance today for it is that international investors in particular and customer  
countries will look for political stability. So in some perverse way, while there  
is political instability in other jurisdictions in Australia, the international  
investors will look to South Australia where there's a good deal of political and  
15 community certainty, relatively, to say, well, South Australia is a jurisdiction  
that is quite predictable in uranium space, because it's a producing jurisdiction.

MR JACOBI: Is there sufficient differentiation overseas to differentiate  
between the position as it exists in South Australia as opposed to other states?

DR GUTHRIE: That's an interesting question. There is a differentiation.  
20 South Australia and the Northern Territory are regarded in my experience  
overseas – are regarded as the producing states in Australia, therefore you have  
a great deal of political certainty, whereas the rest of the country, all of the  
other states are regarded as somewhat greater political risk for the development  
25 of an asset. And in particular, for an international investor wanting to come in  
to invest in the development of an asset, as opposed to a customer who might  
want off take.

MR JACOBI: Can I come to, again, in your submission, you talk about the  
30 need for continued investment in research and exploration techniques and  
tools, and I am just interested whether you have a perspective? We have  
already had some evidence at the commission from both academics and from  
the Department of State Development about those sorts of techniques. Do you  
have views about the particular sorts of techniques and tools that need to be  
35 developed?

DR GUTHRIE: I think the evidence that has already been provided is very  
substantive and those witnesses speak to it much better than I can. But as a  
40 practising company perhaps, we would see that the incentives for exploration,  
particularly in South Australia, are around being able to explore under deep  
cover, quite obviously. And wherever we can see two things, either the  
development of new techniques supported by – and the connection of research  
institutions to industry, supported by both industry and government. And also  
the ability of industry to exploit government held databases of information. A  
45 good example for us in Western Australia at least is the Wiluna deposit was

first discovered in the 1970s with a great deal of historic drilling. That historic drilling data was in effect proprietary for many years held within the company as opposed to being available to – it goes with the tenement.

5 So where you have multiple activities, so multiple drilling activities on the same tenement for example, it's not necessarily held in a database that you can actually see. You actually have to interrogate back through each individual set of data, as opposed to being able to collectively look at the data, and comparatively across different geological provinces. So as a new entrant for  
10 example, if we wanted to come back in to South Australia, one of the first things we would do is to look at what are the publicly available databases for uranium exploration across the state and how would we gather them in to one place, so that we could actually interrogate them effectively.

15 MR JACOBI: Some of the other evidence to the commission has dealt with the sorts of timeframes by which that information that you have talked about remains proprietary. Do you have a view about how the balance is to be struck between the – I guess the private benefit and the private expense associated with doing the drilling and then the need to ultimately hand that information  
20 over and the sorts of timeframes that might represent a fair balance?

DR GUTHRIE: It's difficult to know and it depends I think on what is actually discovered on some of that data. The timeframe perhaps goes with how the tenement management – the timeframes around tenement management  
25 forfeiture rules, the timeframes for expenditure on tenements and then the requirement to drop ground over time. I think for us, our experience has been that many – in many cases it is the reinterpretation of existing data that sometimes uncovers new deposits that were previously not understood. The timeframe around when is it proprietary and when does it become public is a  
30 challenging one. I don't purport to have a particular view on what's the best way to do it. But if you pick up a tenement it is in picking up the tenement that you actually want to know that you are doing something. You are picking it up with as much knowledge prior to that as you can. That is difficult when it's proprietary.

35 MR JACOBI: Do you have a view about the – again, I understand that in a sense, the company will hold the data sets for its own purposes, is there a need in your view, is – is there sufficient work done in assimilating the information in to existing data sets once it then comes in to government, or is there a need  
40 for more work there?

DR GUTHRIE: I think that is where we need to see more work. Where we do have proprietary data sets that are not necessarily aggregated and then able to be interpreted collectively. So that for me would be the target as to where  
45 future work could be done.

MR JACOBI: Again, come back to an answer from before, you spoke about – I think industry supporting government and I think perhaps I could add, academics in - - -

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DR GUTHRIE: Mm.

MR JACOBI: - - - the sorts of collection of base line information for the purposes of exploration activity. And I'm just interested to understand, again from the commercial sector's point of view, how it can be incentivised to engage in that sort of long run work, as we have heard about UNCOVER and I am just interested to understand how it is that commercial enterprises might be encouraged to more actively participate in those sorts of programmes.

15 DR GUTHRIE: I think you probably have different answers for different sized companies to be quite frank. When you're a small market cap company with limited cash then you prioritise your cash to what will deliver the most immediate result and value for your shareholders. When you are perhaps a larger company with deeper resources, capital resources, then you can take a longer-term timeframe. How you incentivise across that spectrum might be different incentives for different size companies. I can speak for the small cap company because we as Toro are a small cap. For us, the incentive to participate in research needs to be driven by the benefit that our shareholders might get in a short-term timeframe. It is a one to two year retail shareholders are looking for a return in the Australian market in a very short timeframe. And that is a great challenge for us in uranium because uranium is a long-term business.

MR JACOBI: I guess perhaps ask the question a different way, I am just interested in the – whether there might be any way to manage the public good aspects of this information which in a sense – because it's a public good, companies can't necessarily internalise the private benefits. The inevitable result of that is that there is a – what might be described as sub-optimal level of investment in that and I am just interested in are there different approaches to that elsewhere in the world that have been followed that manage to find a way to get the commercial enterprises to actively participate with government in those sorts of activities?

DR GUTHRIE: There might be a way to incentivise it which is for example a proportion of the rates and rentals or the commitments made on a tenement per annum. A percentage of that might then be able to be allocated. We all, for any tenement holding, we all pay rates, rentals and a requirement to meet a commitment of expenditure per annum. Some proportion of that being required to be set aside for research purposes. Not necessarily driven by the company themselves but perhaps participating in a broader spectrum. One of

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the other challenges for a small company is not just the amount of money available but it's the time and expertise available. In a small company, we're a company of 10 people, there are absolute – our geologists absolute focus is on delivering value from the resource we have and so all of their time  
5 commitment is there. So it's resources not just in capital but in expertise as well. So one solution might be around there is income that comes to government from anybody holding tenements, maybe you can see a way to allocate some of that to a research and connect the industry and researchers more closely.

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MR JACOBI: Your submission refers to a number that we have heard elsewhere, this is on page 10.

DR GUTHRIE: Mm'hm.

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MR JACOBI: The notion that there is a US \$70 a pound figure. We have heard this in other evidence - - -

DR GUTHRIE: Mm'hm.

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MR JACOBI: - - - and its relevance to new project development, and I am just interested in the origin of that particular figure? We have heard it a number of times and I am just interested in perhaps what might be the magic behind it?

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DR GUTHRIE: Well, magic is probably a good word. I think in the peak of the price period which was 2007 through to 2011, it was widely regarded that the base price that uranium would probably fall to would be about \$70 per pound and below that, you would not be incentivised to start. We do have some further price forecasts, graphs that we can provide to you but those  
30 price forecasts, essentially there are a number of investment banks and trade analysts in the uranium market who look forward on current demand supply curves. And those predictions, one of those was Raelene James in our submission, but those predictions variably range over the next five to 10 years from a low of say, 35, \$40 per pound out to a high of some \$80 per pound by  
35 2020; the mid-case of those sits around 65 to \$70 per pound.

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The underlying driver for that \$70 per pound is, we are now in the global industry, moving from what might be considered to be the very lowest cost production, further up the cost curve to more the second quarter or third  
40 quarter, so any new production coming into play now is going to be a higher cost than the original developments that we currently see producing.

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That means to get both your all in cost covered, plus make sufficient margin to satisfy your return on capital, you need about 65 to \$70 per pound to get there.  
45 At the moment in the market, we have an inventory build-up since 2011, since

Fukushima, and the Japanese reactor shut down program. That means there is a soft demand for material, and an inventory of material in the market which is holding down prices.

5 The current price forecasts that are in front of you have taken that into account, plus the growth in China in particular, in China's new build program, and in 2020 in the next decade and beyond, in India's program, which will washout firstly the inventory, as Japan restarts, and secondly create a supply gap to meet that demand. The main predictions say that will around 2018 to 2020, which is  
10 what will eventually cause the price to rise.

MR JACOBI: I'm just interested, in fact I was interested when I saw the chart, to understand the extent to which those sorts of market projections put out by commercial houses that publish that data are then factored into  
15 commercial decision making within perhaps an exploration and mining companies. I'm just interested: is that information relied upon, or is that used as a general tool to make decisions about new investment?

DR GUTHRIE: It's in effect relied upon, or it's used as a tool to position any new production into the market. The uranium market is, in fact, quite opaque. It's very difficult to see, at any given point in time, what volume of material is contracted, and at what price. What we do see are aggregated prices and aggregated volumes, over time. As a result, it means that these price forecasts are the only tool we have to be able to determine where we position.  
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There are two markets in uranium: the spot market and the long term contract. It's more the long term contract price which will drive new production to come in, because to be bankable, of course you need to have some underlying customer contract to underpin your project. So it's the long term price. What  
30 we've seen in recent times is a convergence of long term and spot, to a very close margin, where in the peak of the spot market, we had a premium just after that, on long term contracting.

The volumes of material that have been contracted for long term over the last  
35 two years has been almost nil, because there's so much material in the spot market, in inventory, that customers and utilities around the world can go to spot and meet their forward demand.

So we tend to use this as a predictor of, if you like, of where and the timing of  
40 when we can position new production coming to market. And it is used by the utilities as a predictor of when they perceive their forward contracts are going to be unable to be met by the spot market, and what price they might need to contract at, which de-risks or hedges their forward price as well.

45 MR JACOBI: You spoke of China and its effect with its new reactor

construction, on its effect on the price. Do you expect that Australian uranium oxide would ultimately be sold into China? Is that a market that's available to Australia?

5 DR GUTHRIE: Yes, it's a market that is available to us, and China's appetite for Australian uranium I think is high. There are a couple of sales contracts that have been made by, for example, Energy Metals, which is 70 per cent owned by China Guangdong Nuclear, have sold forward contracts from South Australia. They've purchased South Australian material and sold it into  
10 China, a couple of years ago now.

Chinese investment, offshore foreign direct investment, has actually been more dominantly into Namibia, in resources in the ground, but they have not precluded Australia as an investment target in the past, and I would expect that  
15 we will see material as China's demand increases, we will see Australian material being sold into that market.

MR JACOBI: I want to come to part of your submission that deals with your views about that approvals processes - - -

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DR GUTHRIE: Yes.

MR JACOBI: - - - and I understand it's a theme for your submission that approvals processes should be designed from an outcomes based approach, and  
25 I'm just interested to pick up a number of elements of that. You speak of, and this is on page 14 of your submission, the fact that mere coordination between government decisions, and particular between the Commonwealth and the states isn't sufficient. I'm just interested, perhaps whether you could expand on your reason for that view, particularly in view of what we're now hearing  
30 about the bilateral process under the EPBC scheme.

DR GUTHRIE: Yes. Look, our experience on the first round of environmental approval for the Wiluna Uranium mine project was one where there was quite a lot of coordination between the state and federal regulatory  
35 bodies. It was undertaken under an assessment bilateral that had been signed, and then was, in fact, under the Gillard Government was closed down.

So we started under a bilateral. There was quite a degree of coordination. The part of the assessment process where we saw a great deal of duplication at that  
40 point was when it came to the actual conditions of operation that were proposed. So the actual assessment process, looking at the information provided in that approval, we provided over 4000 pages of information to the two levels of government.

45 Where we saw the duplication was that the conditions set by the state, of which

there were 11, were then duplicated and added to by the federal government of the day, to 36 conditions. And these are the conditions on which we would have to operate. I'll give you one, I think good example of how duplication in that works: we have a condition at the state level to have a tailings dam design,  
5 audited and verified by an independent engineer, which we would expect to have; we have a duplicate federal condition, which has a tailings dam design which needs to be independently audited and verified, but that condition effectively completely duplicates.

10 So the question for us is, can that same independent auditor be the same person or not? At the time of our approval, although it's not written in the conditions, the conversation was along the lines that it had to be somebody independent of the state jurisdiction as well. That's the level of duplication, which meant that  
15 you would have an independent engineer that we would employ to produce a design, a state government and a state independent auditor, and then a federal government and a federal independent auditor, on one design.

MR JACOBI: Was there any expectation coming to that perhaps particular example of there being a different level of scrutiny in either process? Was  
20 there, in terms of practical outcomes, was it expected that it would've produced any different result?

DR GUTHRIE: No, no, not at all. The expectation I think was that at all levels, you would be meeting a similar requirement, because the requirements  
25 for tailings dam design and mine closure are quite clearly defined at country level.

COMMISSIONER: I was going to explore that. Is the legislation the reason for the difference, or the interpretation of the legislation?  
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DR GUTHRIE: I believe it's the interpretation, because if you actually look at the legislation and what's required, the requirement is for a mine closure plan, or a tailings closure plan, but it's not prescriptive. And in my view, nor should it be prescriptive, because you will then only get into a world where the  
35 prescriptive conditions for one part of Australia, South Australia, might be very different to what you would need in the Northern Territory. So it's the interpretation of what is require in a mine closure plan or a tailings management plan that leads to the duplication. And that's where perhaps better integration rather than coordination, but actual integration of the requirements  
40 might be better served.

MR JACOBI: Moving on from the coordination, your submission goes on to express, perhaps what I might term, what are the characteristics of a model regulator and then a model applicant, and just coming to the aspects of a model  
45 regulator, your submission speaks of the need for specification at an early time

of data requirements timing and scheduling. I'm just wondering whether you might expand on that in terms of what you have in mind practically that you might expect from a model regulator with respect to those three issues: data, time and schedule.

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DR GUTHRIE: Sure. So let's go to the time and schedule 1 first. For the Wiluna project's first approval, it took around four years for the approval to be received, and that was because we triggered, under the EPBC Act, the nuclear action. Without the nuclear action trigger we would not have triggered federal approval at all. It would've been like a small goldmine with no matters of national environmental significance. We created a timeline for ourselves based on the statutory periods that are specified by legislation and by the regulations under state and federal, and came to the view that if we all stuck to, and did not exercise any extra discretion, which is currently allowed under the regulations, we would be through the approval process within two and a half years.

The reality was it was four years, and that's because there are points in time where further information can be required at either a state or federal level, including the appeals process which adds additional time or in effect stops the clock. So your statutory periods, while defined, there is some level of discretion that is able to be intervened. Secondly, when there is a statutory period, we found in a number of cases - say there is a six-week statutory period for the government departments to respond to a submission or documentation from the company. We would often find that the government departments would request a further two or three or four weeks because they hadn't got to time in the six-week period. So there's an ability to extend that statutory time frame on a number of occasions, both at a state and federal level.

I'm making the assumption that that same level of discretion exists within the regulatory system in South Australia as well, or could exist. I think that's where time and scheduling can be particularly important and for us on our project, if we had been able to receive an approval within the two and a half years from commencement, we would've actually been bringing the project to the market at a point in time when the price was around \$90 a pound, in which case, we would've been in production by now. So the time delay of the extra time to get the project up meant we missed the peak in the market.

In terms of data requirements, that two and a half years of the statutory period does not include the actual baseline data that's collected behind the scenes or prior to actual application. One of the challenges, I think, in every part of Australia in environmental data is collecting enough seasonal variability data, that you might have, for example, a particular wet year or a particularly dry year and you'll have different environmental outcomes as a result. So it's in the past been widely believed that you need three baseline years of data before being able to well understand the environmental impacts. That's in recent

times been recognised that that's perhaps prolonged and two seasons of data might be sufficient, two seasonal cycles, effectively two years of data.

5 But in all cases, when you're working in the environment it's not a precise science. So you can't repeat the same experiment and get exactly the same statistically valid number, because you're dealing with the environment which is an organic system, so each time you do it you might find a different slight variable. So our experience at Wiluna was that there were times when the regulators would seek replicated data on the same thing, when in fact the  
10 reality is replicated data, by very nature being data about the environment, is not possible. Weather is a good example.

MR JACOBI: It seems that there will always be cases where more data might be required and that might not be realised at the start, or more time might be  
15 required that was not appreciated at the start. Do you have a view about what practically might be done in terms of issues of data and time at the outset of the process?

DR GUTHRIE: I think this is where the environmental ministerial conditions  
20 really have come into play. It's where the strength of having conditions attached to your approval - and a good example of how Wiluna approval was handled, we had a question around the taxonomy of a species called Tecticornia. It is actually not an issue about Wiluna itself. It's an issue of science that the taxonomy of Tecticornia across Australia is poorly defined. So  
25 whenever you find one of these plants it's very difficult to identify it down to the species level.

The way it was handled for us was to put an indirect offsets condition on the Wiluna project where we're required to undertake or to support research into  
30 Tecticornia taxonomy, physiology and ecosystem structure, if you like, as a public good, so that Western Australia can better understand Tecticornia's occurrence and its value in terms of biodiversity. So I guess the example that I use is one where we have the ability to set conditions under a regulatory system which might then enable a potential environmental impact, that is not well  
35 understood because there's insufficient data at the start, to be monitored and then in effect ameliorate the risk of that long-term environmental impact realised.

MR JACOBI: I'll just come to the issue of time. The EPBC Act has some  
40 hard time limits in it, and I gather from what you're saying is that those hard time limits weren't necessarily effective in terms of controlling the total time period for the process. If the statute, and its permission for discretion in it, doesn't resolve the issue that you raised, do you have suggestions about how you consider you might go about managing those issues of time?  
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DR GUTHRIE: I think the key delay in the Wiluna approval was the difference between the state minister's approval and then the federal minister's approval, and there's a great deal of discretion for the minister at both levels to exercise. This is where the bilateral for approvals as opposed to assessment  
5 would greatly help, so that when the assessment process is complete and the two ministers then at a state and federal level - we have a bilateral in place that allows the one minister to make the decision on behalf of both levels of government. In our case, the difference between the state minister's approval and the federal minister's approval was between October 2012 and April 2013.  
10 So it was a significant delay to the project over a five-month period.

MR JACOBI: Your submission also refers to the need for government agencies to have expertise available to deal with the volume of applications that were then expected, and I'm just again interested, was there any  
15 information that was available to the government departments that were assessing these applications as to your intended application, that is, the fact that you were going to be making an application such that they could resource themselves, or - - -

DR GUTHRIE: I think one of the great challenges we have seen for governments and regulators is the actual expertise, so it's not just about a pair of hands who can actually process pieces of paper but it's actually the experience and expertise to be able to understand a tailings dam design, flora and fauna, weather patterns, groundwater management, any of the  
25 environmental aspects and what we have seen is perhaps a prosody of the depth of experience needed in the regulator to be able to fully assess the environmental conditions for a project. One of the potential solutions for that is either as has happened at Ranger when it was first established, is either establish an independent scientific body, like the office of the supervising  
30 scientist to oversee and provide that experience or expertise to the regulator, which is a very expensive outcome for both government and industry by the way. Or alternatively, find a way to have industry to government exchange of experience such that you can increase the level of expertise in the regulator itself.

MR JACOBI: Perhaps shifting to the question of the model applicant, and I am just interested to hear, you expressed a view that there was a need to – for applicants to be engaging the stakeholder communities at the time of the making of the application.

DR GUTHRIE: Yes.

MR JACOBI: And I am interested – perhaps you can explain what you had in mind by that and the extent to which that forms part of any regulatory  
45 obligation that sits upon the applicant?

DR GUTHRIE: So this speaks a little to, I think the conversation later about social licence to operate. As our experience has been at Wiluna and I guess in my personal experience prior, outside of the uranium industry, when you first  
5 make an application is the best time to start engaging, in our experience, with the local community. Those who are going to be most impacted by – in both a positive and a negative way by the development, in our case we engaged very early with the Wiluna traditional owners. Native title had not been determined  
10 when we first began the conversation. And the process we used was very much one of listening and understanding their concerns first. If you don't take the time early and upfront and bear the cost early and upfront of that engagement then you – and you have a building community opposition to you, once there is a momentum in the community opposed to you, my experience is you will never overcome it. You will have a sensitised community and once  
15 sensitised it's very difficult to unsensitised people to the negatives of your project.

So our experience was with the local Aboriginal people, it's where we spent most of our time, the local community, including I should say the local shire as  
20 well, explaining both the size and scope of the project. We took a lot of time to understand their concerns; we identified them early and were able to narrow down to two or three issues, the key concerns of the local community. We then made very clear early commitments to protect some of their issues. For example in culture and heritage we made a very early commitment that we  
25 would not explore on the saltpan of Lake Way. It is culturally significant to the local people. They did not want us to put drill rigs out on the salt, so we made a commitment despite the fact that we knew that we might be walking away from some potential ore. We made a commitment we would not drill on the lake. That built a great degree of trust with the local people. We also then  
30 understood that they didn't understand what uranium mining in a shallow calcrete deposit would look like, so we took them to a mine site where they could see the type of mining. The local people also wanted us to not leave behind large waste rock dumps, large holes in the ground and large tailings dams because the northern goldfields, as you can imagine, in Western Australia is littered with those structures. Again, early on we made a commitment that  
35 we would return the mine site to as close as possible to the current natural landscape.

That doesn't come without cost to the development but what we, I think then  
40 had to do and what industry as the proponent perhaps best practice can do is not see that as a constraint but as an opportunity. So in developing our mind plan, having made a commitment that we would try to get the landscape as close as possible to its current natural position, we then saw that as an opportunity, okay how do we run the mine in a way that meets that  
45 requirement? And in effect, where we arrive at is for tailings to be put back in

to the hole, back in to the mine void, which is, in effect regarded by many people around the world as world's best practice, particularly for uranium mining, where it's possible. It has happened at Ranger mine, it's what we do in mineral sands mines, which are equally have radioactive material in them, in some of the minerals. So I think – and when you think about what is it for best practice, what is the model proponent look like, it's about making early commitment to understanding the community that you're working with, partnering with them in terms of understanding their concerns, helping them to not just believe you but show them, demonstrate through performance, including we brought them to Beverley to see what a uranium mine looks like. So demonstrate through performance the – how a uranium mine would operate and then make commitments to protect the things that are most important to them.

Having said that, there were things that the community wanted, which we said no to as well. And they were for example, early payments of cash up front when there was no trust structure; there was no governance in the local community to be able to manage those funds. So in my experience, developing your community interface for a strong social licence to operate doesn't mean saying yes to everything. But it does mean, being very considered in why you would say no and explaining it to them.

MR JACOBI: And can I just come to this question of building capacity in communities because this is addressed in your submission.

DR GUTHRIE: Yes.

MR JACOBI: And I am just interested in the sorts of things that Toro did in terms of its development. You have referred – the submission refers to – given a number of examples but was referred to undertaking radiation monitoring and certain land rehabilitation work. I am wondering whether you might expand on what it was you did there, and then I want to come to this question about – in terms of capacity building, the extent to which that involved in participating in the governance of the community as well?

DR GUTHRIE: Sure. So early on, addressing those questions that the local community wanted some answers to, we made a commitment to provide them with independent advisors. So we paid for those advisors but we gave them essentially, for example in radiation, a list of independent consultants from Toro, who could provide them with advice. They then chose the consultant that they wanted to use and that person has in fact been with us through the journey over the last six to seven years. On the basis of our – we would put our advice forward about the project, they would then have that tested and verified by the independent consultants that they had chosen to – and they could then ask independently of us, questions of those people around the

voracity of the data being put forward. On the back of that, we have since just prior to the approvals in 2012, committed to employing local Aboriginal people in two main functions. We are required to do rehabilitation of drill holes, immediately after drilling and so we have employed local people through  
5 Central Desert Native Title Services and their ranger programme.

So in doing drill hole rehab, we have to do it anyway. We could employ people from anywhere in the world to do it. What we have chosen to do is employ local people and therefore generate some – both capacity to understand  
10 what mining drill hole rehab looks like and some capacity for local economic participation. It's very small volume and itinerant work but it has also gone some way to building trust between ourselves as a company and the local people. Early on, we also did employ some people – some women in particular to do seed collection for us to – because we had some – a mine pit rehab to do,  
15 so we asked them to do local seed collection and paid them to do that. Again, an activity that we would have to do as a mining company, who we could pay anybody for. But to have them do it, we actually had to provide an independent adviser to identify what species we needed, as opposed to, for example, bush tucker species.

20 And thirdly, as we've been undertaking baseline monitoring now for some four or five years, one of the aspects of baseline monitoring we need to continuously do is ground water monitoring. So we have identified, through our independent consultant, who has actually now gathered together a small  
25 group of local people, and has trained them in ground water monitoring and radiation monitoring on site. Again, an activity that we would need to undertake, which if we didn't use the local people, we would probably use a consultant from Perth to do.

30 But in using the local people, it's done two things: it's developed some capacity in particular, and it's enabled them to participate in an economic activity. Secondly, it's allowed them access to the data, so in having them collect the data, we've actually also said, "You can also have the data and the independent consultant can explain to you what it is you're actually  
35 measuring," and that's given them a degree of - an incentive if you like, to understand what's in the ground, and also to understand and believe when we're explaining scientific data to them, they've actually been through the process of data collection and interpretation, so they have their own capacity, if you like, to understand.

40 It's not without its risk, and it's not without a great deal of effort to bring those people, who in a lot of cases, are not numerate and not literate in English; they are in their own language. It takes a lot of time and a lot of patience and effort, but from Toro's perspective, I think the rewards for us, in terms of having the  
45 local people understand the context in which the mine will be developed will

be a fruit. It's starting to be a fruit now.

COMMISSIONER: Is there an expectation of longer term employment when the mine operates?

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DR GUTHRIE: Yes, there is. In fact, in our mining agreement which we're currently negotiating with the local people, we have committed to a number of employment and enterprise opportunities, both around direct employment in the mine and also through service providers. In any mining operation, and ours would be no different, around for example, operation of a mine camp, maintenance, low level maintenance requirements, earthworks, maintaining roads, water in trucks, those sorts of things.

15 So it's both direct employment, but also more importantly, what we are looking to do is build enterprise in the local community, so that when the mine is finished, there is, in fact, a capacity within the community to actually look after itself as opposed to being dependent upon direct employment with the mine.

20 MR JACOBI: I'll come to this question of capacity building, and I'm just interested: you spoke a little earlier about a refusal to make upfront cash payments in the absence of a trust. I'm just interested to the extent to which Toro's been involved in building those sorts of governance structures within the community, for the purposes of such communities receiving payments, and how they're dispensed.

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DR GUTHRIE: Yes. I should clarify that we refused to make the payments that were asked for, although we did make milestone payments via the representative body. We've been involved through what was the Wiluna Regional Partnership Agreement, which was an agreement between the federal government, state government, the Minerals Council of Australia and the local industry people, local companies, to establish governance in the local community, both governance around straight community governance and leadership in the local community, and also governance around funds.

35 Since the Wiluna project commenced, the native title has been determined, so the Wiluna and Talpa people are now the native title holders in the region, and a prescribed body corporate has now been established. Of course, it's easy for us to say a prescribed body corporate has been established, but when you look into the local community, the capacity to run a corporation is not there today.

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So part of the RPA has been building capacity in the local people to understand what corporate governance of funds looks like; what's required as a director of a corporation, what's required in terms of accounts, in terms of legal obligations. And in terms of distribution of funds or use of funds, according to, in our case, the mining agreement prescribes where some of those funds can be

45

used, either in employment opportunities, enterprise building, training and development or community development activities.

5 The RPA finished in Wiluna in June; the PBC is now well established and one of our commitments in our mining agreement is to continue to fund, in a small way, but in a continuous way, the ability for the PBC to function. That is, by providing sufficient funds for an administrative officer and for legal advice to ensure that they know how to govern the funds that they have.

10 We did, early on, have a conversation about whether, as a company, we should be part of a PBC, and helping to provide that support directly. Both the community and ourselves agreed that it would be less than appropriate for the company providing the funds to actually be administering the funds as well.

15 I guess that's the majority of our activity to date, in governance. We're very close to completing our mining agreement with the local people, and expect to do that in the next few months, at which point the funding into governance of that PBC will commence.

20 MR JACOBI: I just want to come back to: you indicated that with respect to Wiluna that you'd taken representatives of the community on a number of visits, and I was interested to the extent to which those visits have been significant in informing the community's thinking about the nature of the project that you're undertaking.

25 DR GUTHRIE: I think the site visits to both Beverley and to Doral Mineral Sands in Western Australia were pivotal in having the local community understand what a mining operation looks like, or can look like. It's very easy to perceive that mining is about; you might think an iron ore mine or a big coal mine is big bits of equipment with big pits, big holes in the ground, when in fact, the majority of local developments can actually be quite small.

30 So it was quite pivotal in having the local community understand, and those people who went to those two visits, coming back to the local community and explaining to them in their own words what they had seen, and how that might interact in Wiluna. One of the great difficulties of course is the people. Many of the people who were on those two visits are no longer alive, and that's a common issue when dealing with aboriginal communities, that life expectancy is much lower, and of course when you were dealing with the elders and the senior law men, you tend to be dealing with the older people in the community.

35 In our circumstances, we've had a turnover of almost the whole of the negotiating team, in the seven years that we've been negotiating with them, and that is a great challenge for industry, because it's a different set of people across the table. Equally, the aboriginal community would argue that the

company has had a turnover of management as well, so it's a very important part of our process to ensure we've captured the experience in writing on our side, so that should there be a continuous turnover from both sides of the negotiating table, there is somewhere captured the history of the negotiations, and the relationship over time.

MR JACOBI: In fact, this is where I was going to go. I mentioned the extent to which you've mentioned certain promises and commitments being made to the community, and I'm just interested to the extent to which those commitments, such as where you were going to conduct the mining activities, and the extent of the interference with the landscape, the extent to which they're embodied, either in something that's legally binding, or otherwise in something to which ready reference can be made, such that everybody going forward understands what the agreements are that have been reached.

DR GUTHRIE: There are two places where we've captured it. The first one is in the environmental approval documentation that was provided to the state government and the federal government in the first round of assessment, and I'm referring to the first round, because we are, in fact, in a second round of environmental approval procedure now, for the next two deposits.

So we're actually going through the process a second time, because Wiluna is six deposits, not one, and our first approval was the first two deposits. And the processing facility: we're now doing another two deposits. So we're actually going through the process a second time, because Wiluna is six deposits, not one, and our first approval was the first two deposits and the processing facility. We're now doing another two deposits. So that's the first place in the environmental documentation on our public environmental review documentation we have, in writing, committed that, as a part of our commitment to the traditional owners, certain things that we would not do in the design and would and would not do in the design of the mine.

The second place where they're captured, and this is equally legally binding, is in the mining agreement which is currently being finalised. So in our mining agreement there are certain things that we've committed to do around environmental management and around the mine design which is enshrined in that mining agreement, and both of those are legally binding places.

MR JACOBI: Can I just quickly deal with two other issues that are raised in your submission, and one of them is - your submission addresses the improvement in environmental practices within mining activities, and it refers to a number of sources from which those obligations might come and separates out ISO management systems, regulation - - -

DR GUTHRIE: Which page?

MR JACOBI: Pages 28 and 29.

DR GUTHRIE: Thank you.

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MR JACOBI: And I'm just interested to understand the extent to which there are separate drivers for environmental improvement in mining, and the extent to which there's an interplay between perhaps culture within organisations, the ISO systems that you're talking about there which are a voluntarily  
10 commitment of a company, and also the regulations themselves.

DR GUTHRIE: I think we see it as a layered approach. You can have the internal management system such as ISO 14001 or ISO 9000 which you might use to educate your own people internally. My long-term experience of quality  
15 systems is that they are only as good as the culture of the organisation in terms of adopting them. You can have a perfect paper system, but in fact quite a poor performance on the ground. So it does speak, as you say, quite closely to culture. That might be the first layer.

20 The second layer is really around regulation, and when we have outcomes-based regulation, which I'm a firm believer in outcomes-based regulation, then you actually have to have the underlying correct culture to deliver the outcomes. And what really is the third layer that absolutely drives the culture is your social licence to operate, because at the end of the day, even  
25 if you meet all of your legal obligations or your quality system obligations, if you have a community that is opposed to you, then you will eventually not operate. It's pretty simple. We've seen that many times around the world in the mining industry.

30 So in my mind, the multiple layers connect. The social licence to operate is almost a circle that has to drive the culture internally, and while it might sound a bit motherhood, culture is very much about leadership in both how companies make decisions and what they take into consideration around those. We have signed up to the Minerals Council Code of Enduring Value, which is  
35 about considering all aspects of your mining development, not just the financial ones, and in many cases, at Wiluna, for example, some of the design is more expensive meeting that social commitment around returning to the mine to a landscape not dissimilar to what it currently looks like. That's not necessarily the cheapest way to do this, but it is still financially viable to do it, and it also  
40 protects against that social licence to operate, potential failure that you might have or the risk that you might have.

So I think it's a collective, multi-layered approach that drives successful implementation. A quality system on its own doesn't do it. Regulation on its  
45 own doesn't do it. A social licence to operate on its own doesn't do it. But

multiple layers connected through the culture and the leadership of the company is how you can best deliver the outcome.

5 MR JACOBI: I just want to come very quickly to the last topic, and that's the question of skills and education. Your submission addresses this at 17. And I'm just interested in perhaps whether you might expand on the views that you've expressed there. You've identified an inadequacy in some areas for industry to be able to find relevant skills with workers. You identify one area which is a radiation specialist. I'm wondering whether you might perhaps  
10 expand on that, and then to ask whether there are other areas that you consider that there needs to be some assessment of skill sets in particular.

DR GUTHRIE: Sure. Yes, the radiation question for the Australian uranium  
15 sector is a thorny one. It's an area that, I think, is very underdeveloped in the university system in Australia no matter where you look across the country, and that's in part because radiation, as we have previously known, or radiation specialists, as we know, there are really only a handful and the industry is of a size that it only needs a handful. So to have, for example, a university course that might be churning out 20 radiation specialists a year, 19 of them are not  
20 going to get a job in the mining sector. Many of them with an interest in radiation will actually end up in medical imaging or the medical sciences rather than mining.

However, the body of people, less than 10 people in Australia, that we have  
25 with that expertise are all getting older and for us to replace them in Australia is a challenge, because we don't have young people entering university or coming out of university with an interest in radiation specialty in the mining sector. It's a question that the industry talks about quite a bit, because we're not sure how to solve the problem. We have attempted on a couple of occasions to  
30 try to build courses with universities. The University of Adelaide was one of those. The University of New South Wales is another one. But we found that the commercial drivers for university courses preclude us being able to establish a course for one person per annum. It's pretty simple economics.

35 The other areas where the industry has a paucity has been, and continues to be, around the development in metallurgy. The mining industry across the board is cyclical and commodity prices drive the boom and bust cycles. At the moment we're in a flat spot, so most of our trained geologists are not being geologists right now. Equally, most of our trained metallurgists are not being  
40 metallurgists. But the skill set that we need in minerals processing, and in particular the innovation that we might seek, is really eroding relative to the big boom cycles that we have had in the past, particularly through the development of nickel in the 1970s, the development of gold in the 80s and 90s, and then through this last couple of decades in the big bulk commodities of gas, oil, coal  
45 and iron ore.

5 So it is a challenge for us across the minerals industry, not just in uranium. It  
is an even more of a challenge, specifically in uranium, because we are a small  
industry. There are only a handful of companies and only three producing  
mines today. So the only way we will be able to source future development,  
10 unless the industry develops larger than its current production rate, is to go  
overseas and source those people, because there isn't the appetite to study that  
and the commercial drivers are not here in the Australian university system to  
drive it.

10 COMMISSIONER: Dr Guthrie, I think time has marched away. We could've  
sat here all afternoon and asked you questions. Thank you very much for your  
evidence. We'll reconvene at 15.45.

15 DR GUTHRIE: Thank you.

**ADJOURNED**

**[3.38 pm]**