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RESUMED **[2.00 pm]**

COMMISSIONER: Welcome back at 1400. We return to topic 18, Financing and Investment in Nuclear Infrastructure, and we welcome Mr David Knox. Thanks for joining us, Mr Knox.

MR KNOX: Thank you very much.

COMMISSIONER: Counsel.

MR JACOBI: Mr David Knox has over 30 years of experience in the global oil and gas industry. He was the managing director and chief executive officer of Santos from July 2008 to November 2015, having being appointed acting chief executive officer in March 2008. He joined Santos in September 2007 as executive vice president of growth businesses. Mr Knox was the managing director for BP Developments in Australasia from 2003 to 2007. He previously held senior positions with BP in Australia, the UK and Pakistan, and management engineering roles at ARCO and Shell in the US, The Netherlands, the United Kingdom and Norway.

Mr Knox is currently director of the Migration Council of Australia, chairman of the Adelaide Botanic Gardens Foundation, and chair of the CSIRO Energy Strategic Advisory Committee. He is also a member of the Commonwealth Science Council, Business Council of Australia, University of Queensland, Industry Engagement Committee, the Great Barrier Reef Foundation, the Royal Institute of Australia, the Trade and Investment Policy Advisory Council, and the UK University College of London Advisory Committee. He is a Fellow of the Australian Institute of Mechanical Engineers and was elected in November 2012 as Fellow of the Australian Academy of Technological Sciences and Engineering, and the Commission calls Mr David Knox.

MR KNOX: Thank you.

COMMISSIONER: Mr Knox, you'll be aware that if we were to proceed down the track of expanding into nuclear fuel cycle activities there would be major investment required, and we have heard, from written and oral evidence, about the challenges of delivering large major projects. As a previous CEO of Santos, you've got considerable experience in this area, and we'd like to explore some of the issues that have been put forward to us as particular challenges for delivering large projects in Australia, and I'm talking about finance, skills and experience, industrial relations, and perhaps I'd like to get at then to social licence.

So might I start by asking you about capital investment? In large infrastructure projects, how does one go about finding that large pool of capital to invest, and perhaps I could start with what do you think the key requirements are in developing your pool of investors?

MR KNOX: Yes. Well, this is of course the big issue because we're talking about mega projects here. We used to call a mega project $1 billion. We'd probably call a mega project now 10 to $20 billion and even beyond. So these are very, very large sums of money that are required in order to develop. So in order to do that, you can't just go to the market or go to a bank or go to any particular agency and say, "Please, I'd like $10 billion." That's clearly not the way forward. So the way you've got to tackle this problem is you've got to divide it up into chunks, but the very first thing you've got to have is you've got to have a robust, fundable, economic project, and by that I mean a project that has - you can describe it however you like, but net present value is clearly very positive over the life of the project; in other words, the discounted cash flow streams after capital investment are strongly positive.

And you can argue what discount rate you use for that, but let's say we use the cost of capital which, for a lot of firms in Australia, is probably 7 or 8 per cent. For governments it's more like 3 or 4 per cent. So you've got to demonstrate that you have a strongly economic project. Now, in order to really have confidence in that, one key component you have to have is of course you have to have the revenue stream guaranteed in some way. It doesn't mean you have to have the absolute amount of revenue that's going to come in guaranteed, but you have to know that if you produce the product, whether it be gas, electricity, oil, whatever it is, electrons, that (1) you can move them to the market, and (2) that there's security for that movement over a said period of - in the case of the project we just completed, which was Gladstone LNG, a period of 20 years.

So the real piece of magic is to get that revenue stream somehow secured. Now, that doesn't mean that people actually know it's going to be $60 billion or $100 billion, but they know that if you produce the electrons, let's say, that they're going to be moved onto the wires within a certain set of parameters, and people then can assess the risk and decide whether they're going to take it, but they know they're going to move and that's the really key thing.

In our case, the key thing that unlocked the massive GLNG project was the fact that we signed up Petronas to buy half the product for 20 years and Kogas to buy the other half of the product for 20 years. Now, at the time of signing, each of those contracts was worth about $60 billion US. So they were probably some of the largest contracts ever signed, and they are copper-bottom contracts. Those contracts are no different from a major power purchase agreement that might be written by an owner of a nuclear plant to move the electricity onto the wires.

So you absolutely need that, and then having got that, you obviously then need a good understanding of how much project is going to cost. So one of the really key things in doing that is you've got to put the project through a very rigorous and detailed conceptual phase. So you think about what are all the options, narrow them down into a detailed design phase eventually, and then present a costing, which clearly has a range of uncertainty around it but that range of uncertainty may be plus or minus or 10, 15 per cent when you approve the project and you've got to have good confidence in that, and the people who are considering working with you to either loan finance or to support you have to also have confidence in that. And then of course the third thing you have to have in place is a credible management team to actually be able to execute this, and that is a completely non-trivial issue which we'll probably get onto.

COMMISSIONER: I probably should have said at the outset that Santos isn't involved at all with any of the nuclear fuel cycle activities, nor has it any intention of - - -

MR KNOX: No.

COMMISSIONER: What we're actually attempting to do here this afternoon is to use your experience in the role that you had in oversighting and the delivery of those two major projects. So I wouldn't want anybody who is watching this to think that Santos has any involvement in, or intention of being involved in, this process.

MR KNOX: That's absolutely true, Commissioner, but I think it's reasonable to believe that we can talk about the two major energy projects as a proxy for what might happen if there was ever an opportunity to invest in a really major - well, into any form of really major project, but let's say a nuclear project in Australia.

COMMISSIONER: Can you just give us a broad outline of the project cost at the start of this project?

MR KNOX: Yes. So when we first thought about the project and went through the conceptual phase, we did have an idea of what the cost would be. At the end of that phase, we costed the project at $16.1 billion US.

COMMISSIONER: And what year was this?

MR KNOX: That was in 2010. We got the Board approval at 16.1 billion in December 2010, and then it took us effectively five years to complete the project from there. But from inception of the project, when it was first mooted, which was really in 2007 perhaps - mid-2007 was the first time it was publicly discussed. So it took from mid-2007 all the way to October 2015 to actually conceive the project and then finally deliver the first, in this case, cargo of liquid natural gas. So it was a very long process.

We approved the project at 16.1. In 2012 it became obvious to us that we wanted to expand the scope of the work we had to do, and we therefore increased the budget to $18.5 billion US, so an increase of not quite 15 per cent, 12 and a half, 13 per cent. Subsequent to that, we've now delivered the first cargo and the projection for the project costs are that we're going to complete it within the 18 and a half billion. And the other thing that happened here was we completed it on time, and those two things are connected. If you complete a project on time you have a reasonable chance of completing it on budget as well, because time is effectively money. So that's an extremely important aspect of delivering a mega project is to stick to the timetable.

MR JACOBI: You spoke before about satisfying Santos itself with the cost and the time frames. How did you go about satisfying investors that you were able to meet those costs and time frame targets?

MR KNOX: Obviously Santos is a relatively small company and an extremely large project. We owned 100 per cent of this project in 2007. What we did was we recognised that to say Santos could execute a project of this size with 100 per cent holding was really not realistic, credible or fundable. So what we said, we have got to attract world-class partners, who have a real track record in doing these projects, in to the project. Both to give it credibility because they give it their imprimatur by coming in but also to give us the ability to call on their resources should we require them, to help us execute it. The first world-class partner we got in was Petronas. We did them in 2008, they came in and they took 40 per cent of the project at that time. So we went down from 100 to 40 per cent and for that they came in for an upfront of two billion dollars and they owned 40 per cent of the project. That immediately, we went from a project which was – most people would view was an idea, a concept, a thought, in to something that was massively credible because Petronas, and again you can use as a proxy for – same thing would happen in the nuclear industry, Petronas were the largest and still are one of the largest producers of LNG in Asia. In fact, operate the largest plant on a single site in Asia; the Bintulu plant. So they are highly credible. Highly credible operator.

We then subsequently brought in Total, obviously a very French super major –

also a very big player in the LNG business and finally we brought in the world's largest single buyer of LNG which was Kogas. So by having those three partners and in that time we had come down from a 100 percent, down to 30 per cent and we had raised over three billion dollars of funding in bringing it down. But not just raising funding, that is one thing we done, but we had also given it massive credibility because these were people who had done it before, they understood it and clearly if they come on board then they were giving it a really support and that massively helped us when we then went subsequently to the markets and said we'd like your support for this project and we can talk about funding and how we did that.

COMMISSIONER: I think that might be a good place to start with. We have heard about the enormous build time for nuclear and the importance of – and the cost of finance, so that financing of large projects up front, how do you manage that? How important is it to consider that at the early stages of your project?

MR KNOX: So very early on, the Santos board was absolutely clear to me that we wanted to make sure that this project was fully funded before we approved it. So it wasn't in any way – the execution was not contingent on the fact that we had to get additional funds. So that was very early on. So obviously we've already talked about selling the project from 100 per cent to 30 per cent, bringing in partners and bringing in cash in that sell down, in to Santos' balance sheet. We then decided with the partnership, with the four partners, that we were all going to fund our individual shares. So that's the next thing that was done in this project. We can talk about Papua New Guinea perhaps later where there was a different choice made for very clear reasons. But we all decided we would all fund our individual shares and so then Santos, we had to fund our 30 per cent share, which was still six billion dollars. So we then went and we raised funding from our equity shareholders, so we went out for an equity raise and this was, I think in 2012. And that was very successful and we were saying to our equity shareholders, look we've got this fantastic strategic opportunity to completely transform the company, please support us, and they did. We raised three billion dollars through the equity raise.

We then also negotiated bilateral loans with a group of banks. A syndicate of nine banks and those are basically loans which you can call upon if you need them and they are in fact almost a safety net. You pay an upfront fee and a fee to hold the ability to call on the cash, a small fee to hold it. But the nice thing about that is you don't perhaps plan to draw those down as part of your core funding but they are a contingency, a safety net should you ever need to do it, you know you have the ability to do so. We then also went to the European equity hybrid market it is called, which is a financial instrument where basically you – again, a syndicate of banks and you effectively issue a bond, like a Santos bond in this case, and we did it in Euros and we raised over one billion Euros which we then transferred in to US dollars and we transferred in to US dollars because most of our expenditure outside Australia was in US dollars and we wanted to make sure that we were appropriately hedged. So we raised the hybrid. And then the final source that we used, and this was very much – well, it was export credit finance. And this was very much supported by the Australian export credit agency, Angus Armour was the then CEO and we raised from memory about one billion US dollars of export credit finance from Australians, from Americans, from Italians and the Koreans.

That was because – we could do that because in America, we were contracting with Bechtel; in Italy we were buying all the equipment from effectively the gas turbine compressor and (indistinct) Kogas were a huge buyer of the LNG and of course Australia was very much an on the field participant in this and they also supported this. The magic was that Australia support was really important because from memory, they had 200 million dollars they loaned us but that also gave sufficient confidence to the others to come in, which was very important. Some of that money that we got from those export credit agencies, we had to draw down and some of the money was just there in case you needed to. So there was different provisions. So those were the different sources but basically right up front, we Santos made sure that we could fund our share from our balance sheet and from these various sources. All reasonable outcomes right to the end of when we go cash flow positive which in fact is what we did.

COMMISSIONER: This partnership - - -

MR KNOX: (indistinct)

COMMISSIONER: The partnership of the group presumably gave the individual partners the confidence to get to the market to get the funding they needed?

MR KNOX: That's right. And each partner – if you're Total you don't need to, you can fund it straight off your balance sheet, you're sufficiently big, you may do some corporate things in the background but you don't individually fund a project. And effectively Santos, we were funding it off our corporate balance sheet but it was really all – we dedicated to this. Kogas are very similar, they were able to use their own government funding to support it and Petronas is sufficiently big to fund it off their own balance sheet. So each partner chose a different approach but the magic was bringing a really credible set of partners in. That was really – the really important time, a set of international partners and having done that you then attract a set of international funders and the export credit finance relied on a really good quality set of international contractors. In our case Bechtel, Fluor and Saipem.

MR JACOBI: As you move from the phase of construction and development to the point in which you are actually delivering gas, did you expect a different profile of investors to subsequently emerge, to invest or support these sorts of projects? We have heard a little bit about that in the nuclear space, where one pool of investors or equity holders willing to invest during the construction phase and then later on you are able to take advantage of different types of finance once the actual power plant is operating.

MR KNOX: Well, once the power plant is operating, you don't need finance because you are cash flow positive. So you are in the clover. So we took the approach, now it was absolutely right the approach and with hindsight it was massively the right approach to make sure we had everything in place right up front. So we didn't need to go to the market for additional funding in all reasonable scenarios, to complete GLNG. And that's how we did it, and the same approach was taken on Papua New Guinea. That we got all the funding in place right up front to execute – and as soon as you get to the first cash flow then – well, then you are positive cash flow, so you then – it's about how quickly can you pay down the – return the money but you certainly don't need to borrow any more. But if you are talking about - - -

MR JACOBI: They were talking about substituting classes of borrowing at that point and actually dropping some of the borrowings away and actually replacing with other kinds of finance.

MR KNOX: Well there are things you can do that a treasurer might choose to do once they're cash flow positive, to lower their cost of funding but there are not necessarily around how you fund a project. The key thing when you fund a major, major project is – my key piece of advice is to make sure you get it in place in advance before you start – fire the starting gun. Get it in place.

COMMISSIONER: If I could just move off to the planning stage now, is there a heuristic in relation to looking at overseas costs and estimates and using that to develop your own Australian profiles of cost and time?

MR KNOX: Yes. And this can be a trap of course and one of the areas where it's most challenging. The Australian market is slightly different and there are a lot of reasons for that. I think probably the biggest thing that's quite hard for a lot of people to understand is just the geography. It is so big, and the size of the population is quite small relative to the size of the country, but the logistics and the whole logistic exercise of doing a mega project in Australia does make it more challenging.

So, for example, if you just bald-face took the productivity of a US Gulf construction employee and the cost of that employee, they cost about $50 an hour, and if their productivity is one, then if you transfer that to an Australian situation, Australian cost about $100 an hour and their productivity is less than one, possibly even a level of .7. Now, that's not necessarily because the Australian member of the construction workforce is not working as hard; it's just because it's an awful lot more difficult because you're geographically spread, you've got to get the kit everywhere, it's not so easy to get organised, you can't just get on the phone and say, "I need another compressor," or, "I need another 20 people." It just can't be done.

Nobody should interpret my comment that you do one in the Gulf and .7 here is because people don’t work as hard. That's absolutely not the case. It's just because it's more difficult due to a number of circumstances, also which are smaller. So we just don’t have the level of sort of people, expertise, that, say, you would have in a North American opera house in a European situation, but we do have a number of other advantages, and one of the key things that I found out through doing this major project is the quality of work that is actually in Australia is actually good. So certainly in our major project, when you actually came to look at what was done and the quality, whether it was concreting, the steel work, the insulation, the welding, it was good. So that was really very positive.

The other side of that coin is to - the area where we struggled a bit was to get ourselves organised. Now, I mean ourselves. I don’t just mean the labour force. I mean the supervisors, the engineering firms, the design and everything, so you can actually draft the project forward and really be productive. It took us time to get a level of productivity which I was comfortable with. It took quite a lot of effort to get there, but we did it. At the end of the day, we did deliver on our revised budget. We delivered within that revised budget, which I think is a very credible performance of 18 and a half billion dollars US.

MR JACOBI: In terms of cost, the cost quoted in the US, or wherever you got your products from, the translation to Australia, is it less of a problem because you're importing your equipment mostly?

MR KNOX: Yes. When I talk about project costs I've just used a fixed Australian-US exchange rate. So we just took that off the table and just said we don’t control the exchange rate. We just chose a fixed exchange rate and we calculated our performance against that fixed exchange rate. In the time of our project the exchange rate went up and the Aussie dollar strengthened. That was very helpful. We were able to buy more US dollars for less Australian dollars. And now it's fallen, which is also massively helpful because our revenue is actually in US dollars. We've taken all of that off the table and we just talk one fixed exchange rate so you can compare apples with apples.

If we actually did talk Australian dollars, we actually benefit from the strong

Australian dollar. So our costs were lower, but that was purely due to the exchange rate. So we've always just left that. It could've gone the other way. We don't control exchange rates. So I think it's important also when you're doing these project that you have to run them in the currency in which your revenue stream is. In our case, it's US dollars, the revenue stream, so we run all the costs in US dollars and just fix the exchange rate.

COMMISSIONER: Just for interest perhaps, did you have a target for Australian content within the project?

MR KNOX: We didn't have a target, but it's interesting, because we know what we spent in Australia, because we spent it in Australian dollars, and 70 per cent of the 18 and a half billion dollars was spent in Australian dollars. So our Australian content was about 70 per cent, which was really quite high and a lot of people wouldn't immediately think that, because an awful lot of the kit was bought in Italy or North America because they're very, very sophisticated. They're effectively jet engines, very fancy compressors. None, or very little, of the steel was bought in Australia because Australia stopped making the type of steel we required, the high end chrome nickels and the very high quality structural steel.

The plant - just speaking of plant - was also assembled in the Philippines and then shipped in 110 modules to Australia and then reassembled in Australia in massive modules, and these modules were designed to about a 2-millimetre tolerance. So we put them on concrete plinths and welded them back up again. And even despite all of that, 70 per cent of the cost of the project was spent in Australian dollars. So we had about 10,000 Australians working once we got really into gear in finishing construction of this. So you can use many different techniques to build these projects and still have very strong local content, a very good local content.

COMMISSIONER: Which leads me to the next question about skills. We've heard that it's difficult to obtain the skills for massive projects in the country. I would like to reflect on the Santos experience, your experience, in attracting and retaining those skills, particular for the periods that it took to build your infrastructure.

MR KNOX: Yes. Well, we did it. We did attract them. They were available to us. That doesn't mean it was all smooth sailing. I think one of the things we did right upfront is we said if you're going to execute something of this magnitude, this scale, in Australia, you better use the world's best contractors; you better use people who have really, really done big before. So we used Fluor in the upstream to build our upstream facilities. That was one of world's largest engineering contractors. We used Saipem, which is probably one of the world's top two pipe laying companies to build our pipeline. They're obviously

Italian. And we used Bechtel, and Bechtel are effectively - KoMiCo Technology is licenced to Bechtel to build the plant. Everyone would say they're three of the best.

Underneath that what they then did was, depending upon - in Bechtel's case, they have a lot of experience and a lot of Australian staff that they have used over many, many years, because build a lot of kit here, a lot of plants, aluminium plants in particular, but a number of very large projects here. So they use their Australian labour force and they typically direct hired from that labour force that they knew. At peak on our project they had about 4,200, 4,300 staff. And of course Bechtel did the other two projects as well. So actually they had 12,000, 13,000 Australians workings on the LNG site, and they managed to get them. Amazing they did. A lot of people said they couldn't, but they did.

COMMISSIONER: All in the same geography too.

MR KNOX: All in the same geography, all tripping, going across the harbour in Gladstone, a majority of them going up and down the East Coast, quite a lot of them living in Gladstone, Brisbane area, but equally, some coming from Adelaide, Melbourne, Sydney and all the way up and down there. So they did that.

Saipem, a world-class pipeline contractor, their numbers are lower. They brought in principally Italians, but not all Italians, who had done big pipes before. This was the largest pipe ever installed in Australia, 42 inches, 420 kilometres. It's a big pipe. 36,000 pieces of pipe were welded and transported. So they did that job. And their crews are smaller, but they use Australian crews and they train them. A lot of training done to make sure that the weld quality - the weld quality was absolutely key, and a huge safety thing when you're moving 36,000 lengths of pipe where each one weighs tonnes. So you just cannot make a mistake on that.

And upstream, Fluor did not have a massive presence in Australia. They used top quality Australian contractors. They used Clough, they used Downer, and they used a number of other smaller Australian contractors, so the Latham contractors as well, in order to build the various pieces of kit. So they in fact project managed on our behalf a number of Australian contractors, and towards the end of their time, as they completed the job Santos took over the management of those contractors directly and we have now continued on with those contractors to build subsequent facilities. And, to be honest, we've learned a lot from that experience. We now have some really, really good - and the same expenses occurred in the other projects - some really good Australian contractors who can do this job and do it very well. The magic here though, was ultimately getting the leadership.

COMMISSIONER: Yes.

MR KNOX: And getting the really experienced project leadership and then the second piece of magic was really making sure that that leadership absolutely owned the outcomes. And when you are doing a major project like this, it is a contact sport, you are on the field of play, you are not in the stands. Especially if you're Santos where you are relatively small, there is no question about not delivering on time and on budget. You have to do that, so you are on the field of play and you need people who really, really own the outcomes and we were fortunate in that we developed a team that owned it with an absolute passion and that I think is the really key thing I notice and deliver.

COMMISSIONER: They were people from Australia?

MR KNOX: Some are, some not.

COMMISSIONER: Okay.

MR KNOX: The upstream – person who ran the upstream are all Australians, on our side, all Australians. The pipeline, person who did the pipeline was a Total secondee, who in fact happened to be Welsh but the person who worked on the ground was another Total secondee who was French, lots of pipeline experience. The Bechtel team that we had is led by a New Zealand – a UK, New Zealander who is a global LNG – done many of these projects before, built the trains 3, 4 and 5 (indistinct) He also though had – he had an Aussie team underneath him, a really good Aussie team underneath him. And they stayed right from the get go. So it was a mixture. That is what you have got to do is you have got to get the best from wherever you can get them in the world and then you've got to develop a real camaraderie and team spirit and those teams, they move. So say the team that built the plant, they started in Houston, some of them went to the module yard in Batangas in the Philippines and then others moved all the way to Gladstone. So they move their families around and that is how you deliver one of these massive projects through that (indistinct)

COMMISSIONER: Assumedly because of the success of delivering this project, your interface with the industrial relations network, either you did a lot of work on it, or it was fit for purpose?

MR KNOX: It was fit for purpose. It was good. We didn't lose a day to industrial relations throughout the whole project. We did have some days where we didn't get much work done but they were typically because the weather was appalling, rather than any major incidents. But we didn't lose a day due to industrial relations. One thing that – one reason for that, I think, and I will use Bechtel as an example, is they negotiated right up front a union agreement that covered the full – well, it covered four out of the five years, it took to build Gladstone LNG. Towards the end of that period, we did renegotiate but at the end of the day, those negotiations were done in a very reasonable manner and while there was a dance conducted and while there was some give and take, we – and a couple of votes on the island, we were successful in getting a positive vote for the deal prior to it expiring. So basically we've had good industrial relations right the way through. And I think that works on both sides. You know, in order to achieve that you have got to think about it, work it out and be very mindful of that right up front and have people who are genuinely committed to the workforce and keeping them effectively on side and supporting right through.

Because these are five-year projects, so we weren't bringing people in for half an hour. These were people who were typically away from their families for two or three years with one week every four weeks at home. So you better make sure they're on board, otherwise it's just not going to work and I think we managed that and as a client we did that through our major contractors but we had a role in supporting them in making sure that they had the ability to really sit down and talk to their union leaders and do it in a very meaningful manner. I think it worked – it did go well. We were fortunate in Queensland though, I think, in Queensland it's perhaps a little easier because there's a good – it was a good experience of doing these sorts of projects in Queensland. So - - -

COMMISSIONER: In terms of before you started developing the social licence that gave you the community support to do the – to start the project - - -

MR KNOX: Yes.

COMMISSIONER: - - - what sort of activities did you do in that particular area? Were they significant?

MR KNOX: It's much more the small things you do that are really important. First of all, you have got to have a team on the ground who are really genuine. So the person who ran our community engagement in Roma, Fairview area where we were doing all the drilling, he had lived all his life in Roma. He was a Roma boy, he'd worked for us already for 25 years, 30 years perhaps even. He was known in the town, he led the community engagement and he also led the operations aspect in town. We had also worked in that area for a long time, so people understood the Santos (indistinct) they knew what they stood for. A lot of them had been – had some involvement over many years. So I think the first thing you have got to really do is you have got to be truly genuine. You have got to use people who are local, who are in the community, who are community leaders, to bring the community along with you and you mustn't rush it. So you have got to spend a lot of time explaining this is what we're going to do, this is how we're going to do it. And once you do that and give it time, you can move through these things because you have got to gain their trust, especially in Australia. You have got to gain their trust. We also were very clear very early on, that we were not going to go on to anybody's land to drill a well, without their support and that made a massive difference because as soon as you say that, then there is a conversation takes place. Well, if that's the case, let's have a chat about – whereas if you say you're going to use the law, then of course the barriers go up, fences get closed, the gate's locked. But if you say, look we're not going to do it, and we haven't done it. We have not broken that rule before drilling a well. And I think that was also a very important aspect of owning the confidence and trust in community.

So you have got to take it extremely seriously not to a couple of town halls or anything like that, it's about having people who are really serious, their lives are in the local communities, their futures are in the local communities, so they make sure that they do right by the local community and that I think has worked for us. The same in Gladstone, the same working with the mayor there in particular, and all the community leaders, to explain what we're going to do and bring them along. Now, that doesn't mean it's all been smooth sailing. Don't get me wrong. It hasn't. There have been difficulties. There have been upsets in turns. There have been situations where we've not done as well as we would have liked. But overall, we've effectively apologised when that's occurred, moved on, and really taken it very seriously, and I think that's earned a genuine licence to operate.

COMMISSIONER: How long were you actively in the area of developing those relationships before you started work, and I'm thinking both upstream and downstream? Were you there for a year or - - -

MR KNOX: No. We were there for much longer than that. When the project was conceived in 2007, one of the first things we did was secure a site on Gladstone Island, and from then on, in early 2008 we were on the ground with a small team and then building that team up, talking to F&B in the area where we were doing the upstream development, in other words, drilling the wells, we'd already been there 30 years, so we were just able to turn the dial up. We took town offices, for example, very, very early on, and shopfronts. We literally have shops. They are shopfronts. They don't sell anything other than what you're going to do. People walk in. They're on High Street. And they did. They did in their droves.

They came in initially in large numbers. You have displays. People sit down, talk about it one on one. All of that is really important and over time - we still have the shopfronts, but over time they have now moved much more onto visitor information and education aspects and being offices, effectively, for us to run things from. But originally they were just shopfronts. They were purely to communicate to the public and for the public to know that if they had something they wanted to say, they could just walk in the shopfront when they bought their groceries, and it makes a big difference.

COMMISSIONER: And that was done in Gladstone as well?

MR KNOX: That was done in Gladstone as well, yes. Gladstone, High Street, shopfront, yes, a nice, old building shopfront. Yes. Roma, we had a shopfront in Roma. We've done the same in Narrabri. We've got a shopfront there. We have a shopfront wherever we do this and it works well. And they've got to be manned by locals, yes, manned by locals, and ultimately you've got to attract - if you're in the rural communities, you've really got to work with both sides of the family as well. The husband and the wife have got to come along here. So you can't just talk to one section of the community.

MR JACOBI: You spoke about having the finance resolved in advance as well as the industrial relations workplace agreements. I'm interested to understand, with respect to the environmental impacts and the planning aspects, the extent to which they were resolved well in advance of construction.

MR KNOX: Yes. So the environmental impact statement was a very major document in our case, and I think it weighs 65 kilos, is the story, and it had to be wheeled in in a wheelbarrow, very major, but it needed to be. It was a very, very big project and it was breaking new ground as well. It was the first time anything of this magnitude and scale had been done. So that was all agreed before we approved the project. Before we FID'd it was all approved by the government, and also free from either a merits review or a VCAT legal challenge process.

If you're open to those things you can't start a mega project. You've got to finish all of that process before you can start. If you do, that's a slippery slope. You've really got to make sure that you have the full support of the government, the local communities, under an agreed framework before you start this off. You cannot afford to have legal challenges post that, and that's one of the challenges, certainly, that we've had in, say, the Narrabri project which is in New South Wales. We think we've found a way through that now, but it's very important to have those agreements.

COMMISSIONER: We might finish with the final question which addresses that. In terms of sovereign risk, did you or the partners have that as a particular concern, noting that you're working under commonwealth as well as state legislation?

MR KNOX: Yes. We recognised that there were degree of risks associated with approvals, mostly risks to the schedules and when we'd get those approvals, but we, Santos, always said very clearly to our partners that fundamentally, both the state and the federal government will work with us to make sure that we do the right thing, but make sure we are able to do that going forward. They had confidence that that was the case, and that proved to be the case. So while it was identified as an issue, the feeling was that by having a local partner such as Santos, that actually, to a certain extent, negated that issue, not eliminated but reduced the risk of that issue, and our partners believed that working with us and through us was, because we're an Aussie company, a way to get through that issue, and it did prove to be the case.

It was hard work and there was an extremely onerous set of conditions placed upon us, but this was a new thing. We were breaking new ground. It was highly innovate. It was understandable. Once we got those onerous conditions, we understood them. We were able to then act upon them, stay within that framework, and then perhaps discuss with the government some areas that could be relaxed throughout the next five years, and other conditions that had to be approved subsequently, but we believed that was all manageable and the partners also came to that understanding as well, and we were successful.

The Australian government - I came in 2003. I've always felt that they're very open provided you're prepared to do the right thing and provided you acknowledge that there are certain things that you've got to do, and then you have a good robust discussion with them. We've had very supportive energy ministers in this country for a long time, both state and federal.

COMMISSIONER: Mr Knox, I thank you very much for your evidence this afternoon and the very direct way you have helped us think about major projects and how they can be delivered.

MR KNOX: Thank you very much, Commissioner.

COMMISSIONER: We'll now adjourn until tomorrow morning, 0800.

MATTER ADJOURNED AT 2.43 PM UNTIL FRIDAY, 11 DECEMBER 2015