

**ECONOMICS AND INDUSTRY
STANDING COMMITTEE**

**INQUIRY INTO THE ECONOMIC IMPLICATIONS
OF FLOATING LIQUEFIED NATURAL GAS OPERATIONS**

**TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
THURSDAY, 24 OCTOBER 2013**

Members

**Mr I.C. Blayney(Chair)
Mr F.M. Logan (Deputy Chair)
Mr P.C. Tinley
Mr J. Norberger
Mr R.S. Love**

Hearing commenced at 1.03 pm

Mr ROY KRZYWOSINSKI
Managing Director, Chevron, examined:

The CHAIR: On behalf of the Economics and Industry Standing Committee, I would like to thank you for your appearance here before us today. The purpose of this hearing is to assist the committee in gathering evidence for its inquiry into the economic implications of FLNG. You have been provided with a copy of the committee's specific terms of reference. The Economics and Industry Standing Committee is a committee of the Legislative Assembly of the Parliament of Western Australia. This hearing is a formal procedure of the Parliament and therefore commands the same respect given to proceedings in the house itself. Even though the committee is not asking witnesses to provide evidence on oath or affirmation, it is important that you understand that any deliberate misleading of the committee may be regarded as a contempt of the Parliament. This is a public hearing and Hansard is making a transcript of the proceedings for the public record. If you refer to any documents during your evidence, it would assist Hansard if you would provide the full title for the record.

Before we proceed to the inquiry's specific questions we have for you today, I need to ask you the following. Have you completed the "Details of Witness" form?

Mr Krzywosinski: Yes, sir.

The CHAIR: Do you understand the notes at the bottom of the form about giving evidence to a parliamentary committee?

Mr Krzywosinski: Yes, sir.

The CHAIR: Did you receive and read the information for witnesses sheet provided with the "Details of Witness" form today?

Mr Krzywosinski: Yes, sir.

The CHAIR: Do you have any questions in relation to being a witness at today's hearing?

Mr Krzywosinski: No, sir.

Mr P.C. TINLEY: I would just like to disclose for the committee and for the purpose of the minutes that my wife is an employee of Chevron as a direct contractor. I will not recuse myself at the moment, but I just wanted to disclose it.

The CHAIR: You cannot sack his wife while you are here!

Mr Krzywosinski: I am sure she is a productive worker.

Mr F.M. LOGAN: You can but it just will not look good on TV!

The CHAIR: Do you have a short statement for us today?

Mr Krzywosinski: I do; thank you. Mr Chairman and the committee, thank you for the opportunity to appear today before the FLNG committee. I would like to make some opening comments before we open it up to more general questions. Given that Chevron has no current proposals involving the application of floating LNG technology, I understand the committee is interested in hearing from us on the contributions that traditional land-based LNG developments, such as the Gorgon project and the Wheatstone project, can make to local industry, local employment and domestic gas supplies. If I may, I will start with some background on Chevron Australia. In 2012, Chevron celebrated its 60-year anniversary here in Australia as a pioneer of the Australian oil industry, which began in March

1952. Soon after, in 1953, a Caltex joint venture drilled Australia's first flowing oil discovery. In 1964, Chevron and Texaco discovered the Barrow Island oil field, so next year we will celebrate 50 years on Barrow Island. Chevron's downstream legacy goes back even further, when Texaco began marketing petroleum products in Australia shortly after World War I. Marketing operations under the Caltex brand commenced in 1941 and the first refinery came onstream in 1956. In 1964, we were the founding member of what has become the North West Shelf venture, one of Australia's most strategic and prized assets. The Gorgon gas fields were discovered in 1980, and after further gas discoveries, the Gorgon project, the LNG project and domestic gas project, was sanctioned in 2009. Wheatstone received the final investment decision two years later in 2011. So Chevron Australia is now the developer and operator of two of Australia's largest gas developments, and we work on behalf of ourselves, as well as on behalf of several joint venture partnerships. In developing the Gorgon and Wheatstone projects, Chevron has been committed to delivering the economic benefits of these projects to Australia and, in particular, to Western Australia. In just the construction phase, Gorgon and Wheatstone together will contribute nearly \$50 billion to the local economy. To put those figures into context, that is equivalent to 45 new sporting stadiums or 22 Fiona Stanley Hospitals.

I would like to say a few words on the Gorgon project. The Gorgon project, located on Barrow Island, has been under construction for nearly four years now and is more than two-thirds complete. The first LNG cargo and the start of domestic gas supply is currently planned for 2015. The domestic gas supply capacity is 300 terajoules per day. The total cost for the Gorgon project has increased from its initial \$43 billion to \$52 billion, driven by a number of in-country factors, including logistics challenges, high labour costs, lower than expected productivity and, of course, weather delays. Gorgon to date has committed more than \$20 billion worth of work to Australian industry, of which more than 90 per cent has been committed to WA vendors and suppliers.

[1.10 pm]

During the construction phase, the Gorgon project has created jobs for more than 10 000 people around Australia. This includes more than 6 000 people working on and around Barrow Island because there is a big offshore element, so we have people working on the marine side. Chevron and its contractors have employed hundreds of apprentices and trainees and have hired over 150 university graduates. We also currently have over 350 Aboriginal personnel employed across Chevron and its contractors on the Gorgon project and, to date, 33 contracts have been issued to Aboriginal-owned and operated businesses by Chevron and our contractors on the Gorgon project. By the time Gorgon starts operations, we estimate that around \$30 billion, or 60 per cent of the construction expenditure, will be spent on Australian goods and services during the construction phase of the project. As I mentioned, we have spent \$20 billion to date. By the time we finish the project in 2015, we anticipate another \$10 billion.

As mentioned, Chevron has been protecting Barrow Island's unique environment for the last 50 years. Since starting Gorgon, we have bolstered our protective efforts by implementing an award-winning quarantine management system.

Lastly, with respect to Gorgon, Gorgon is at the forefront of commercial-scale application of greenhouse gas injection technology. We currently have a \$2 billion CO₂ injection project scope as part of the LNG project. This will reduce emissions by the order of 40 per cent. Gorgon will position Australia as a world leader in the application of CO₂ injection technology, with injection rates between three and four times greater than the next largest commercial-scale project currently operating.

I would like to say a few words about Wheatstone. The Wheatstone project located at Ashburton North near the town of Onslow has been under construction for almost two years. The first LNG cargo was planned for late 2016. Wheatstone will have a domestic gas plant with a capacity of 200 terajoules per day. Our estimated first gas production at the Wheatstone project is 2018.

Wheatstone is a \$29 billion project and is currently tracking with an overall budget schedule and key milestone targets. Wheatstone, to date, has committed more than \$11 billion worth of contracts and purchase orders to Australian businesses, of which more than \$9 billion to date have been awarded to WA businesses. By the time Wheatstone starts operations, we estimate that around \$17 billion will be spent on Australian goods and services during the construction phase of the project. We are currently in construction on the project, as I mentioned, and more than 3 000 people are working on site and another 6 500 direct and indirect jobs will be created during peak construction. This includes employment opportunities for Aboriginal folks, with 57 currently employed. This includes a focus on local Thalanyji native title holders.

Another important contribution made by traditional onshore LNG projects is the contribution to social infrastructure. Chevron has committed more than \$250 million to social and critical infrastructure projects in and around the town of Onslow. These projects will upgrade health, education and recreation services and facilities as well as roads, power and water infrastructure. With these improvements to the services and facilities in the town of Onslow, it will be better equipped for the forecasted population growth.

Mr Chairman, as you have heard, both Gorgon and Wheatstone will deliver significant Australian industry participation. We do it we believe by providing full, fair and reasonable opportunity for Australian businesses to supply goods and services. Our project teams have worked hard to ensure opportunities for local suppliers and contractors are realised. We continue to work very closely with the Industry Capability Network and the WA Chamber of Commerce to ensure our projects and key contracting partners are proactively identifying Australian vendors for consideration in our procurement and contracting packages. For example, to put it into perspective, we are currently working with well over 400 Australian businesses in the supply of goods and services. We also encourage local content through industry and individual company briefings. We have numerous roadshows that we go on and we use the Pilbara Development Commission's business capability register. Our contribution to local employment and industry does not stop with construction. It is the decades of continuous operation that will generate the greatest wealth to Australia. This includes the ongoing operations and maintenance jobs, the scores of support services, the development of niche technologies, not to mention the tens of billions of dollars in company and income tax, state taxes and local council rates that will flow into the government coffers each year.

Beyond construction, the focus will move to higher skilled, long-term jobs in LNG and domestic gas plan operations, maintenance and logistics support, along with continuing exploration and appraisal activity. This is to support future expansions of the foundation facilities. We estimate that, once in operation, Gorgon and Wheatstone will deliver around 800 jobs per project. This is in the operation space; this will consist of around 350 operational positions that are located on site and another 450 support positions, mostly located in Perth. I would like to say a few words about the concept of global technology centres. A further contribution Chevron is making to WA—we do not talk about this very much—is in our research, development and technical support, through what we call our Perth global technology centre. We call it our Perth GTC—global technology centre. We established this global technology centre in 2007, and the Perth GTC is one of only two such facilities in the company across the globe; the other one is located in Aberdeen, Scotland. Our GTC currently employs around 130 professionals, including researchers, scientists, engineers and technical experts. This is to stimulate research and development in WA. Perth was selected due to its source of talented regional technology experts, proximity to our interest here in the region, and the opportunity to pursue research and development alliances with local universities. The GTC develops technology capability in Australia, as well as our Asia-Pacific region, and provides a hub of technical excellence which is close here, obviously, to our WA-based assets. So this centre provides technical support for all of South-East Asia, including Perth. The GTC provides research and development solutions and integrated technical services in the areas of process safety, environmental stewardship, LNG processing, subsea engineering, exploration, reservoir

management, enhanced hydrocarbon recovery and deepwater operations. The GTC also develops alliances with local universities and industry research partners to enable innovation and new technology deployments.

If I may provide some comments on floating LNG. As mentioned, Chevron has no current proposals to use floating LNG, but we do acknowledge that the technology has its place for smaller, more remote gas fields, such as, in our portfolio, the Exmouth Basin. However, in our view, there is still a lot more development work that needs to be done before we would characterise floating LNG as a proven technology. Chevron continues to work its qualification process to understand the merits of floating LNG. For us, there are still some unanswered questions, including the safety case for extreme weather locations—those locations, for example, including high or frequent cyclone areas—and questions such as: how is the vessel and the people on the vessel managed during these extreme weather events, and how are annual plant maintenance turnarounds conducted, considering the large number of people required to effectively carry out a turnaround program? With this in mind, it is unclear to us how these issues impact on the continuity of operations on a day-to-day basis—specifically, the availability and reliability of these facilities when compared with land-based plant facilities. We will, however, continue to examine the merits of floating LNG to better understand its development and application potential around the globe, including here in WA.

[1.20 pm]

There is no doubt that Australia has many natural advantages: vast natural resources; close proximity to energy markets, certainly in the Asia-Pacific region; political stability; and so on and so forth—many, many advantages. But business in Australia also has its challenges, including long and unpredictable approvals processes; challenging industrial relations environment; high labour costs; low productivity; and ad hoc tax changes. As a result, development costs in Australia is now up 30 per cent. Development costs in Australia are 30 per cent more expensive than similar investments in North America. This is not according to Chevron, this is according to recent study by McKenzie. Furthermore, projects require 35 per cent more labour import to deliver the same project. This is according to the Business Council of Australia. So it is clear that Australia's global competitiveness is being challenged. It is clear that floating LNG, at least in my view, is an industry response to Australia's high cost environment. Subsequently, it is not surprising that the energy industry is looking at innovative ways to reduce costs in the absence of any near-term signals that Australia is going to regain its global competitiveness. Future onshore LNG development is now competing against lower cost opportunities—for example, North America and East Africa.

The challenge for Australia is to ensure that we remain internationally competitive. I acknowledge that governments are now addressing some of these concerns with possible reform, and we are hopeful that some of these changes will provide some welcome relief; investment in Australia must be encouraged. There is more than \$160 billion in LNG investment currently in construction in Australia, and another, in our view, estimated \$100 billion in projects waiting in the wings and ready to go if we can find a way for Australia to enhance its global competitiveness. If the high-cost environment is not addressed, then I suspect floating LNG will remain on the table for Australia. Government and businesses need to work together to ensure that Australia remains an attractive and competitive destination for capital, including onshore LNG development. We must constructively work together to provide an environment that encourages investment.

Mr Chairman, I appreciate the opportunity to make the opening statement. I am happy to take any of your questions. Thank you for that.

The CHAIR: Thank you very much.

Mr F.M. LOGAN: Roy, you mentioned that the number of full-time employees who would be on the Gorgon and Wheatstone projects following conclusion—following the start-up—is approximately 800?

Mr Krzywosinski: Yes.

Mr F.M. LOGAN: What do you see as the multiplier effect of those 800 full-time employees, because obviously there are maintenance campaigns and there are suppliers?

Mr Krzywosinski: Yes.

Mr F.M. LOGAN: Have you had a —

Mr Krzywosinski: We, personally, do not do a lot of research; we have worked with other consultants and they have different ways of doing it. The feedback we get is anywhere between two times and four times the number. I know that is not an exact science. We have tried to do a similar exercise for construction. It is a big number; one that can be quickly criticised. But there is no doubt that there is a multiplier effect; there is no doubt about that. The question is how big it is—I do not know.

Mr F.M. LOGAN: Then what would you say would be the number of people who would be employed on a large maintenance campaign on both Gorgon and on Wheatstone, because they are different sizes?

Mr Krzywosinski: Fran, just to be clear: when you say maintenance, do you mean like a plant turnaround?

Mr F.M. LOGAN: Yes, a shutdown.

Mr Krzywosinski: LNG projects are big and complex and have a lot of rotating equipment and things like that that have to have frequent maintenance. What we have seen at North West Shelf and plants of similar complexity around the world is that these plants have to be taken down every 18 months to two years, and that is just to give them a good cleaning and looking after, because you do not want key pieces of equipment failing during operation. Those plant shutdowns can be several weeks or several months, depending upon the nature and scope of the work. Depending upon the nature and scope of the work, it can be 1 000, 1 500—we have even seen as many as 2 000 on plant turnarounds. For example, we do, as you know, have a construction village and the construction village is over 5 000 beds; our intention is to keep some share of those beds to facilitate the ongoing maintenance and plant turnarounds that we will see on Gorgon. The same is true, of course, for Wheatstone.

Mr J. NORBERGER: You mentioned cost overruns before, and I suppose with the Gorgon project in particular it has obviously been quite highly publicised that there has been a fairly significant change from the original capex of \$43 billion to \$52 billion. So you are looking at around a 20 per cent increase in original costs. I know you mentioned some examples, which were the ones that normally get the publicity around labour productivity. Notwithstanding those, I would be interested to hear from you what your opinion is on how much of that \$9 billion—it is a significant amount—was as a result of the Australian exchange rate, or the fact that you are working on A-class reserve, which is obviously a very, very unique location, and the fact that the construction is happening, really, during a boom. At the moment you are competing for labour with a lot of mining projects and others as well. I did not hear any of those in your explanation for the cost overruns.

Mr Krzywosinski: First of all, the numbers I was quoting on were in Australian dollars, so that takes some of the impact of foreign exchange. If I look at it on a US-dollar basis, it is even worse. As a matter of fact, the difference is between \$37 billion and \$52 billion; that is how much the foreign exchange moved in that time frame. As to the \$9 billion cost overrun reference, I would say about 90-plus per cent of that is associated with what I would call in-country activity—in-Australia activity. Now, there is no doubting the fact that being on not just a class A nature reserve but an island resulted in some challenges because you are limited in your supply chains and marine vessels and boats and things of that nature to deliver materials.

We just did not see the productivity in getting our equipment and material up to the island. That was a real problem. We got the infrastructure in place, what we call a fly camp or a construction village, started mobilising people, anticipating that we were going to have the material to feed the workers so they can actually start completing their work scopes. What we found is that it was just much more difficult to get what we would call the tonnage and the volume of material up to the island to feed the workforce so that they could be productive. As a result we had some logistics issues impact the productivity in the whole project.

Mr J. NORBERGER: Without going into detail, the actual location, the fact that it is an island, it is an A-class reserve and has some logistical challenges around it, in your opinion would that account for a decent amount of that cost overrun?

Mr Krzywosinski: That is hard for me right now. I might have a better insight in a couple of years, once we have finished Wheatstone. Wheatstone is a mainland-based LNG project. To date I have not been challenged with some of those logistics issues. As a result, I am on target —

Mr P.C. TINLEY: Plus you have learnt a lot.

Mr Krzywosinski: We have learnt a lot, absolutely. That is a good point, Peter. We are pouring all these lessons learned into the Wheatstone project.

Mr P.C. TINLEY: Even then it is not necessarily going to be a fair comparison, given the corporate knowledge.

Mr Krzywosinski: That is right, but you would like to think that an LNG project located on the mainland with several alternatives to get material there in the supply chain will be a little bit more predictable result than a facility of just one.

Mr P.C. TINLEY: I note your joint venture partners include, amongst others, Shell, while Wheatstone's FID is made and is tracking ahead: is there any agitation or input from people like Shell, prior to FID, during the pre-FEED to consider FLNG?

Mr Krzywosinski: I cannot sit here and tell you all the goings on behind closed doors with partners, but no, we never looked at a floating LNG option, if that is what you are asking. That was not part of the suite of alternatives that we looked at.

[1.30 pm]

Mr P.C. TINLEY: But it would have been at some point, surely, and then obviously discounted?

Mr Krzywosinski: For us, no. We thought we had the economies of scale with Wheatstone and Iago. One of the unique things about Wheatstone—we do not advertise it a lot, but we view it as a hub where we invite third party gas. I do not know if people notice, but Wheatstone is Australia's first commercial hub LNG project in which we are actually processing third party gas molecules; that is, Apache and KUFPEC, from Julimar and Brunello. What we are saying is: look, the economies of scale matter in LNG development. The more molecules and gas you can bring into the hub, the cheaper it will be for everybody because you spread out those development costs across more volume—things like dredging, the wharf and the jetty, some of the onsite infrastructure, all these fixed cost elements. The bigger the facility is, the more you can spread those costs so it becomes cheaper for everybody. We have got a sign out at Wheatstone that we are open for business and any third party gas molecules that want to come into Wheatstone, we are going to offer ground-floor terms. We are not offering: write me a big cheque as a bonus or an entry fee or anything like that. All we want people to do is pay their fair share. They will have to pay their fair share of the fixed costs, but that is a fair deal. That is a fair deal for anybody.

Mr R.S. LOVE: We have heard from some other oil and gas companies that have some concerns about Western Australia's domestic gas reservation schemes. I see that you have 300 megajoules at Gorgon and 200 at Wheatstone in the future. Have you got any feeling about that domgas

reservation policy, that it affects your profitability in any way or that it would be a deterrent to investment?

Mr Krzywosinski: First of all, let me say this: it is important when companies make decisions to understand the parameters of the investment. Whether it is domestic gas or whatever other requirements might be out there, you need to understand the demands of the investment. You need to understand how that money will be used and so on and so forth. We understood that situation for Wheatstone. We went into that investment with eyes wide open that there would be a domestic gas reservation policy. As a result, we are doing it; we are providing domestic gas. Between Gorgon and Wheatstone there is 500 terajoules a day, as you mentioned. That represents probably over 40 per cent, probably close to 50 per cent, of the current market. That is good news—there is more domestic gas, more competition. It is good news for everybody. Having said that, I can tell you that we and Chevron support free market forces, quite honestly.

We do not understand the domestic—if you take a look at any kind of domestic market policy reservation, it may feel good in the short term, but I think in the long term it is going to create anomalies and other inequities. It is an artificial constraint that I think is going to have a long-term detriment because other investments may not be able to carry the burden of the 15 per cent domestic market obligation. I know this is a popular notion, but you have to look no further, I would say, than the US. When I look at the US, it was in 2005—before I arrived I looked at the Henry Hub spot price; in the fourth quarter it was over \$13 an MCF—13 bucks! There was no reservation policy, but there were free market forces that said, “Wow! There’s some money to be made here.” It unleashed the whole army, if you will, of drill rigs. The free market forces went out and developed the concept of shale gas. In a matter of four years the Henry Hub domestic spot price went from \$13 down to about \$3. Today, I think it is—I do not know, Bill, if you have looked—probably \$3.50 or four bucks an MCF, which is equivalent to a terajoule. So there is an example where free market forces typically provide the checks and balances.

Mr P.C. TINLEY: But, Roy, on a point of clarification: what about the export licencing that is required for the US to be a net producer? We are a free market, insomuch as we are global exporter, but the US does not have that same approach.

Mr Krzywosinski: The last I looked, I think there were four projects that had been approved —

Mr P.C. TINLEY: Two are approved for export.

Mr Krzywosinski: — of about 50 million tonnes per annum, yes.

Mr P.C. TINLEY: But that is only a recent phenomenon.

Mr Krzywosinski: Yes.

Mr P.C. TINLEY: You pointed at 2005 and the pricing structure that created the internal pressure, where there was nowhere else for it to go.

Mr Krzywosinski: Do you know what is really crazy about all this? In 2005, because we are an oil company, they were looking at importing gas. They were going to import LNG, right.

Mr F.M. LOGAN: You were going to export there.

Mr Krzywosinski: Yes, absolutely. Our Angola LNG market was going to go into the US Gulf Coast.

Mr P.C. TINLEY: Because it is a closed market.

Mr Krzywosinski: No, because the price was high.

The CHAIR: We have been drifting away from our terms of reference.

Mr Krzywosinski: Anyway, the message was that there were four of these re-gas terminals that were going to be built. In a matter of less than five years the market—the industry found a way to

actually turn it around. Now those re-gas terminals are being converted. Those are the four I was thinking of.

Mr P.C. TINLEY: Yes, the export permits.

Mr Krzywosinski: They want to turn them around and make them —

Mr J. NORBERGER: Yes, very interesting. I have a quick question, if I may. We know that Shell is a 25 per cent shareholder in Gorgon and that up until reasonably recently Chevron had a stake in the Browse consortium, I believe?

Mr Krzywosinski: Yes, sir.

Mr J. NORBERGER: You divested yourself of it.

Mr Krzywosinski: We did.

Mr J. NORBERGER: I understand that you were no longer part of the consortium at the time when the decision was made to go to FLNG.

Mr Krzywosinski: That is correct.

Mr J. NORBERGER: I dare say you would have been part of the consortium when James Price Point was being looked at, because obviously a lot of man-hours were spent looking at it. Can you advise the committee if at any time, to your knowledge, the experience that Gorgon had of cost overruns was looked upon as a reference case for James Price Point? In other words, when you were looking at James Price Point and the likely capex that was going to cost, were they looking at Gorgon and saying, “Well, we had better factor in at least another 20 per cent on top”?

Mr Krzywosinski: I cannot say, simply because we exited before it actually completed that body of work. But I can tell you I was looking at it, because I knew what the scope of James Price Point was in terms of scope, whether it was dredging, pipelines or whatever, at both the upstream and the in-plant facilities. I had, kind of, market prices, so to speak—recent market prices with Gorgon and Wheatstone, so I was able to build up —

Mr J. NORBERGER: Boom prices?

Mr Krzywosinski: I do not know if you would want to call them “boom”, but they were market prices. So, I could kind of see where the James Price Point option was going. We did not need to study it anymore to understand where it was headed. Our preference—I think we have been well documented—was to bring the Browse gas down to the Burrup and backfill the North West Shelf. But, because of the retention lease conditions, to only look at James Price Point was not considered. This is one of the issues, when we talk to government, our message to government is to let the industry take a look at the wide range of alternatives to figure out what the best option is. But, unfortunately in that case, because we had the guidelines just to look at James Price Point, I am afraid that bringing the Browse gas down to the North West Shelf was not necessarily looked at.

Mr P.C. TINLEY: Are you saying the conditions on the retention lease excluded options that you might have ordinarily considered?

Mr Krzywosinski: That is correct.

[1.40 pm]

Mr F.M. LOGAN: You said, Roy, that Chevron is open for business to toll gas through the Wheatstone project. Can I just move to an issue that you are more than well aware of, and that is our pipelines and the sharing of pipelines? There is a very strong reticence in Australia, and particularly Western Australia for companies to use each other’s pipelines, and I know you are more than well aware of this. The negotiations to try to get access to another organisation’s or joint-venture operation’s pipeline are fraught with difficulty. That was the same in the North Sea, but

government regulation overcame that and required companies to share. Do you see a case for regulation in Australia?

Mr Krzywosinski: I do not have the familiarity that you are suggesting about the sharing of pipelines here in WA. I know about Wheatstone where we agreed with Apache and KUFPEC to share pipelines—this is a trunkline—coming into Wheatstone. But having said that, we did that as part of what we call the basis of design before we actually built the pipeline. I think what you are suggesting is open access to pipelines. There are places around the world where open access to pipelines works. It all depends who owns the pipeline. In many cases it is utilities. If you look at the US, there is just a whole grid of pipelines and a lot of them are owned by utilities that make a living off transporting gas around the grid. Here in WA these pipelines are actually associated with specific projects, typically. They are offshore fields, at least in WA, that are piped onshore, at least in our case, to either Gorgon or Wheatstone facilities. So, they are owned by the joint venture as part of the scope. I cannot really comment on that; I am afraid I cannot offer any meaningful insight into that.

Mr P.C. TINLEY: Roy, looking further into the future and using your wider experience, and I probably seek more of an opinion than anything else, one of the things we will eventually, as a committee, look into is the genuine benefit or economic opportunity around FLNG. You cannot ignore the other existing people such as yourself. We have seen that Inpex had to go to Darwin. There is a range of reasons they did that. My question is what do you think the state could be doing better that it is not doing now? Is that about infrastructure like a common-user facility in the north west? So, it is not just defined by just regulation but actual action on the coast. Are there things we should be doing in your opinion that we are not currently doing?

Mr Krzywosinski: Thank you for that question; it is a great question. There are different ways you can look at this issue. One is you say, “I am not interested in floating LNG”, and you want to force decisions down another path or we say, “You know what, I want to make land-based plants more competitive, such that they are a better rate of return than a floating LNG plant.” I think that is perhaps what that question suggests. How can we lower the cost of development here on land-based plants so they are competitive and nobody would even look at floating LNG. That would be a nice environment to be in. The fact is that we have very unpredictable approval processes. We could probably spend all day talking about how long it took to get Gorgon approved. They are very unpredictable and long approval processes. We have talked about this on many fronts; it is trying to cut the red and green tape to get these projects moved on and moving forward. We have a high-cost environment here. Why is it high cost? The labour cost is extremely high, so that is a body of work. Productivity is not as high as it is in other places, so that combined—a high labour cost with lower productivity—has a compounding effect on the cost of one hour here in Australia. When you have people in the field making between \$200 000 and \$300 000 a year and the productivity is not competitive with other places, it has a compounding impact. Somehow, we need to work constructively. I am not saying it is the government’s problem; I am not saying it is our problem. How can we work together to change those policy knobs, if you will? There are heaps of them. There are taxes; the tax goalposts since Gorgon has been approved have changed on several fronts. I know that is not a remit for this, but it still results in a cost impost. All of those things add to a lower rate of return on a land-based facility.

The CHAIR: Good point. We only have another eight minutes, so I will ask members whether they have got one more question.

Mr R.S. LOVE: I have a follow-up question. You were speaking before about the Browse retention leases that forced a decision to go to one particular point on the coast at James Price Point. Are those retention leases that you referred to Western Australian or federal?

Mr Krzywosinski: No, they are federal.

Mr R.S. LOVE: In your experience in dealing with both federal and state government development agencies, what difficulties do you see in getting some of these commercial realities through the government agencies?

Mr Krzywosinski: I am sorry Shane, but I am not clear on that.

Mr R.S. LOVE: The fact that a particular point on the coast has been chosen as the development centre for that field then leads to a stream of investment decisions and inherent cost difficulties associated with that particular point. How sensitive to the actual commercial realities do you think the agents of government that determine that original decision are?

Mr Krzywosinski: I do not know if I can give a specific response, but I can tell you that we work with all the departments. I feel that we at Chevron have great access to governments, at both state and federal level. We feel like we have a relationship where we can talk about our concerns. Whether anything can actually occur is another issue, but I feel that I have the ability to have a discussion with anybody in government about some of our concerns—and I have.

Mr F.M. LOGAN: Roy, do you believe that Chevron underestimated the logistical challenge of Barrow Island? I will take you back to the conversations we had when I was the minister responsible for that. Do you remember that we talked at length about Chevron's access to the AMC and the wharf there? At the time I was encouraging Chevron to use both parts of that wharf, whereas you opted to only develop one part.

Mr Krzywosinski: Shame on us.

Mr F.M. LOGAN: Then you invested and you brought down that Chinese wharf as a temporary wharf to tie up there. There is still a temporary Chinese wharf that you are paying big bucks for every single day because you did not listen to me.

Mr Krzywosinski: Darn.

Mr F.M. LOGAN: That, along with the fact that the laydown area on the island itself was prohibitive because it was confined. In fact, we are dealing with that issue right now.

Mr Krzywosinski: Yes you are.

Mr F.M. LOGAN: The Legislative Assembly is dealing with the bill to expand your access to the island for laydown purposes. You talked about productivity and productivity inhibitors, but surely those logistical challenges that you have faced have to be accepted by Chevron as being something that you underestimated.

Mr Krzywosinski: Clearly and I think we have been very transparent on the productivity and the amount of tonnage. Tonnage is different than volume, right?

Mr F.M. LOGAN: Sure.

Mr Krzywosinski: We were expecting the AMC to be much more productive. We were using industry norms that in our view were practical for the facilities at the AMC. When I say facilities, I am talking the wharfage, the craneage, the whole kit down there. We thought we were using what I would call reasonable industry norms for a kit like that. The fact is that we are not getting near the productivity, but it has improved significantly in the last couple of years. Plus, weather has been a big issue and has impacted our ability to get, whether it is tonnage or the volume, up to the island. Going back to this piece of legislation that you are referring to, we are entering the cyclone season and so on and so forth, but what we find on the island, with 6 200 people working on and around Barrow Island, is that I need more inventory and materials to keep people working.

[1.50 pm]

The CHAIR: We are looking after that one for you.

Mr Krzywosinski: I am mindful of that.

The CHAIR: I am sorry, but I am going to have to wind it up at this point because we have to be in the Parliament for question time at 2.00 pm.

Mr F.M. LOGAN: And then we will deal with your bill.

Mr Krzywosinski: I would not want to make you late for that.

The CHAIR: I would like to thank you for your evidence before the committee today. A transcript of this hearing will be forwarded to you for correction of minor errors. Any such corrections must be made and the transcript returned within 10 days from the date of the letter attached to the transcript. If the transcript is not returned within this period it will be deemed to be correct. New material cannot be added by these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional information or elaborate on particular points, please include a supplementary submission for the committee's consideration when you return your corrected transcript of evidence.

We have not managed to get through all of our questions, so we have been asking that, if it is okay, the committee may write to you and ask you to provide a written answer to those questions. Will that be okay?

Mr Krzywosinski: Yes, that is fine.

The CHAIR: Thank you very much for your time.

Mr Krzywosinski: Thank you.

Hearing concluded at 1.51 pm.
