ECONOMICS AND INDUSTRY STANDING COMMITTEE

INQUIRY INTO DOMESTIC GAS PRICES

TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
MONDAY, 20 SEPTEMBER 2010

SESSION TWO

Members

Dr M.D. Nahan (Chairman)
Mr W.J. Johnston (Deputy Chairman)
Mr M.P. Murray
Mrs L.M. Harvey
Mr J.E. McGrath

Hearing commenced at 1.43 pm

WEAVER, MR GRAHAM
Gas Marketing Manager, Apache Energy Ltd, examined:

JOY, DR AIDAN MICHAEL
Commercial and Business Development Manager, Apache Energy Ltd, examined:

PARKER, MR DAVID KENNETH
Government and Public Affairs Manager, Apache Energy Ltd, examined:

The CHAIRMAN: Thank you very much for coming and for your appearance before the committee today. This committee hearing is a proceeding of the Parliament and warrants the same respect that proceedings in the house itself demand. Even though you are not required to give evidence on oath, any deliberate misleading of the committee may be regarded as a contempt of Parliament. Before we commence, there are a few procedural questions that I need to ask you. Have you completed the "Details of Witness" form?

The Witnesses: Yes.

The CHAIRMAN: Do you understand the notes at the bottom of the form?

The Witnesses: Yes.

The CHAIRMAN: Did you receive and read the information for witnesses briefing sheet regarding giving evidence before a parliamentary committee?

The Witnesses: Yes.

The CHAIRMAN: Do you have any questions relating to your appearance today?

The Witnesses: No.

The CHAIRMAN: The committee has received both parts of your submission; thank you very much. One was related to your submission to the ACCC.

Dr Joy: That was an addendum to the submission we made.

The CHAIRMAN: Do you wish to propose any amendments to your submission?

Dr Joy: No.

The CHAIRMAN: Before we ask any questions, do you wish to make an opening statement?

Dr Joy: I have prepared a very brief opening statement. Apache Energy Ltd is the principal Australian subsidiary of Apache Corporation, a Houston-based independent energy company with market capitalisation of $US34 billion. That makes us a little bigger than Woodside, by the way. Apache is active in exploring for and developing natural gas resources in offshore Western Australia. Currently, we supply approximately 35 per cent of the domestic gas sold in WA and we are increasing our market share by building a new onshore gas processing facility at Devil Creek near Karratha. That will be only the third such facility in the state and the first to be built in 15 years. Apache is also part of the Macedon joint venture, which is planning to build the fourth such facility. In addition, we are a foundation investor in the Wheatstone LNG project to be constructed near Onslow. Apache has been an investor in WA since 1993. We are proud of our record of finding and developing oil and gas in WA.

The price of gas in WA is governed by the principles of supply and demand, although this gas market is somewhat lumpy, with few buyers and sellers, reflecting the energy intensity of WA's resource-based

economy. There is also a considerable degree of government interference in the market. Gas prices in WA have historically been low, as there has been an oversupply. Recent demand increases have caused new supplies of gas to be directed to the market, such as the Reindeer gas field, which will be the first field to be processed through Apache's Devil Creek plant, and Macedon. The costs of the goods and services that the oil and gas industry needs have increased dramatically over the past seven or eight years. Gas prices will rise in future in order that the suppliers of gas should be able to develop gas discoveries economically into the WA domestic gas market. There are government policies that exert upward pressure on gas prices, notably the retention lease policy, which allows gas fields suitable for the supply of the domestic market to be warehoused for export in many years' time as LNG, and the WA domestic gas reservation policy, which threatens to cause large volumes of gas unrelated to demand to be brought into the market.

WA's industry, powered by clean-burning natural gas, has a great future ahead. The gas is there in abundance. As and when customers are willing to pay prices that allow suppliers to develop gas reserves economically and under policy settings that allow the market to work as efficiently as possible, supplies will be adequate to satisfy the most optimistic demand projections. That is the end of my opening statement.

The CHAIRMAN: Thank you very much. Apache is a large firm—not by oil and gas standards, though —

Dr Joy: We call ourselves a mid-cap.

The CHAIRMAN: Right. Are you based largely in North America?

Dr Joy: About 50 per cent of our production is in North America and 50 per cent is overseas.

The CHAIRMAN: Whereabouts overseas?

Dr Joy: Australia, the United Kingdom, Argentina, Chile and Egypt are the other countries in which we operate.

The CHAIRMAN: What attracted you to Western Australia?

Dr Joy: That is a good question. I certainly was not with Apache at the time, but I think we have preferentially invested over the years outside of North America in geopolitically stable countries —

The CHAIRMAN: Argentina?

Dr Joy: It is a lot more stable than some of the countries in which oil and gas companies operate. We are not in Nigeria or Angola.

The CHAIRMAN: Or Russia?

Dr Joy: Yes. We try to limit above-ground risk, as we call it—political and geopolitical risk. We saw in Australia —

The CHAIRMAN: Is that a strategic priority of Apache?

Dr Joy: I think that the history bears that out, yes, sir. I think we would also say that we look for areas that are, in our view, underexploited in terms of the discovery and development of oil and gas. We have certainly been successful in Australia, as in Egypt, Argentina and some of the other countries that I mentioned, in undercutting some of the major companies. We see ourselves as an aggressive low-cost operator. We certainly are an aggressive exploration company and we have traditionally built business in the countries I have just mentioned by doing just that.

The CHAIRMAN: How do you see Australia playing in your overall world-scale investment?

Dr Joy: Very much increasing. It is definitely a growth country for the company.

The CHAIRMAN: You are also expanding in tight gas in Canada?

Dr Joy: Yes. We have both shale gas and coal-bed methane in Canada. That is correct.

The CHAIRMAN: In Australia, are you only operating in Western Australia?

Dr Joy: We have one block in the Gippsland in Victoria, but by far the majority of what we hold is on the greater North West Shelf, or the Carnarvon basin, as we call it.

The CHAIRMAN: Do you see not only great prospectivity in Western Australia, but is your plan to put more money into the area?

Dr Joy: Yes. I saw a statistic not long ago that we are investing something like $4 billion in Australia between 2007 and 2011. If we make a positive final investment decision on Wheatstone, there will be another $3 billion on top of that.

The CHAIRMAN: Are you in the LNG market, or do you intend to get into it?

Dr Joy: We do. On the Wheatstone project, initially we have an agreement with the project operator, which, of course, is Chevron, that they will market on our behalf in the initial few years. On our Canadian LNG project, we intend to market —

The CHAIRMAN: Where is that?

Dr Joy: That is Kitimat, which is a deepwater port in British Columbia that will be connected to pipelines to our shale gas resources.

[1.50 pm]

The CHAIRMAN: I did not know that. The key issue is that, in the past, you would have piped that gas down south in the US, would you not?

Dr Joy: That is absolutely correct, and it will be connected by a pipeline down south. But we now have the opportunity to arbitrage United States gas prices with north Asian LNG prices.

The CHAIRMAN: That is a significant example of the change in the dynamics of the North American market for gas.

Dr Joy: It certainly is, yes. It is a funny story, but, of course, Kitimat was originally built as a regasification terminal; now, of course, it is a liquefaction terminal—or it will be. That speaks to the success of the industry in realising and commercialising shale gas, as you spoke about just recently.

The CHAIRMAN: Are most of your shale gas reserves in Canada or around that area?

Dr Joy: Yes, they are in north eastern British Columbia, in what is known as the Horn River Basin.

The CHAIRMAN: Is it high-cost drilling there?

Dr Joy: Yes, it is.

The CHAIRMAN: That is fascinating.

Mr W.J. JOHNSTON: Page 2 of your submission shows a chart listing the average natural gas price.

Dr Joy: Yes.

Mr W.J. JOHNSTON: What was the source of that information?

Dr Joy: Once a year we are obliged, as a publicly quoted company in the United States, to report our economic fundamentals, and this is from our SEC statements, which are public domain statements. These are Apache only; these are Apache net.

Mr W.J. JOHNSTON: Okay.

Dr Joy: I put the table in there because it serves to illustrate that, in the recent past, Western Australian prices have been lower than in any other market where we sell domestic gas, with the exception of Argentina where the price is regulated by the state.

Mr W.J. JOHNSTON: My next question is, then: would you sell at the price you have indicated in that 2007 column now in Western Australia; and would you sign a new contract at that rate?

Dr Joy: We make decisions on what price to sell at based on discounted cash flow analysis of the investment opportunities that bring the gas to the market. Each opportunity is different, and it is, therefore, impossible to say yes or no. If I was able to make the shareholder return that my shareholders

demand by selling at the 2007 figure, all things being equal, the answer would be yes. However, circumstances have changed. The costs of the goods and services that the oil and gas industry consume are very much more expensive than they were when I was setting up gas to be sold in 2007. Now that I am setting up gas to be sold going out into the later years of this coming decade, I am looking at a quite different situation, and I have to say to you that it is probably quite unlikely that I would be able to economically sell gas at that price.

Mr W.J. JOHNSTON: You made the comment about Argentina being the cheapest, or the lowest price, gas, and you say that it is only in Argentina that the government directly controls gas prices, because Apache's realised gas price is lower.

Dr Joy: Yes.

Mr W.J. JOHNSTON: Is Apache making money in Argentina?

Dr Joy: That is a very good question. We are making money in Argentina on oil, and we produce the oil with the gas. We did not go into Argentina to produce gas at $2.17, I can assure you. The second point is that we have actually done something quite innovative in Argentina; it is the first time it has ever been done. We have actually got the government to increase the price cap to $US5 per MCF, which has enabled us to significantly increase our exploration program and drill for deeper targets which, previously, would have been uncommercial. The relaxation of that price control has actually seen an increase in activity and will lead to an increase in the supply of gas to that country.

The CHAIRMAN: What do the Argentineans mainly use the gas for?

Dr Joy: To be honest, I do not know. Do you know?

Mr Parker: I think it is for power generation; that is my understanding.

The CHAIRMAN: And household heat.

Mr Parker: Household heat, yes.

The CHAIRMAN: Since you are in the global market, what is your outlook for LNG? Yes, every market is Balkanised but some are interacted, but, let us face it, we are dealing with quite a homogenous commodity here, and markets do tend to go for a higher value, whether it is LNG, pipelines or, indeed, to move infrastructure around. We can look at the trends in the US shale market, which is easily the largest gas market in the world, and we can see the example that you said about an LNG facility out of Canada, and I also note that Alberta is changing its royalty rates to adjust to these things —

Dr Joy: It is back-pedalling on the change in royalty rates that it introduced in 2008, in order to have investment return to that state.

The CHAIRMAN: And to be more competitive. You can see ripples outside of the centre of the world's largest market for the consumption of gas, but how do you see this world gas market going with relevance to the North West Shelf?

Dr Joy: From my own personal point of view, peak oil is a reality, and we are about there, so the amount of oil we are going to produce as a globe is declining. Gas, on the other hand, is in great abundance and it is an ideal transition fuel to a lower carbon economy for the future because it produces a lot less emissions than oil or coal; it is the lowest emission source of any fossil fuel. We certainly see gas as becoming increasingly valuable. Looking at the North West Shelf, we see it as especially valuable in an Asian context, where we are on the doorstep of the markets where all the growth is going to come over the next few years. Consequently, we are very bullish on LNG, and we have, as I said before, taken a stake in the Wheatstone project. That is an indication that we see that there is a bright future for LNG coming out of north western Australia.

The CHAIRMAN: Even though there are a large number of LNG projects being proposed, do you think the market—because of peak oil and greenhouse—is going absorb most of those?

Dr Joy: I think the first thing to say is that not all of the projects proposed in Australia are going to get up, by any means. But we think we have invested in one that has an extremely good chance of success—we think Wheatstone will get up—and there is, clearly, a very, very large, voracious market in north

Asia, which is increasing by virtue of the addition of China and India to that market. LNG will be a growth industry for many, many years to come.

The CHAIRMAN: Let us talk about the domestic market. As you would have heard when you were at the back of the room, the major impetus for this inquiry was the perceived concern about significant rises in gas prices, and also, more worryingly, about gas shortages arising, in part, because of changes to the North West Shelf 25-year contract, and forecasts from the Department of Petroleum and Mines and industry. There are also concerns about where the gas will come from.

[2.00 pm]

I might add that that forecast did not include unconventional gas, which you know a lot about, at least offshore. So, domestically, given your position, are you concerned—or maybe you are overjoyed—about an increasing shortage of gas?

Dr Joy: I do not think that our investors will be overjoyed if they think they are investing in a shrinking company. Oil companies and gas companies live on increasing their production, not only on increasing their profitability. That is the first thing to say; we do not want to be like De Beers and sort of ration the supply of our product into the market in order to keep the price high. That is not what we do. But in terms of where the gas is going to come from, 160 TCF of it has been discovered out there, so in terms of the physical location of the gas, the question need not be asked. The question is: how is that gas going to get to the market? You do not need unconventionals onshore, although it is an interesting thing to think about; you simply need to look at the amount of gas that is being discovered offshore North West Shelf and just ask, "What are the economic and policy settings, if you like, that are needed to deliver it to the domestic gas market in WA?"

Mr W.J. JOHNSTON: So what are those settings?

Dr Joy: Fundamentally, to take the economic side first, you need to have, particularly in view of the lumpy nature of the market, purchasers who are willing to pay, on a long-term basis, the price that is needed for us, in the context of the costs of our goods and services, to develop those resources and bring them to market, yet still at the same time, make the rate of return that our shareholders demand. Bear in mind that we are in an extremely competitive market with no barriers to entry; anybody can get out there and apply for a permit in a licensing round and drill an exploration well. So that is the economic side of things. In terms of the policy settings, I have made reference to a couple of government policies that would materially improve the ability of specialised domestic gas suppliers, such as Apache, to do what we do best—that is, supply the domestic market.

The CHAIRMAN: Could you briefly go through those?

Dr Joy: We have talked about the retention lease policy, which, in my view, has enabled, what I would call traditional LNG project proponents to "warehouse" gas fields that are by their nature suitable for supplying the domestic market and, rather, to line them up for export in many years' or decades' time as LNG. I completely appreciate that this is commonwealth policy and not state policy, but the application of it is to have the effect I have just described. We made a statement in the addendum to the submission we made to you, which suggested that a much more stringent application of that policy would benefit WA in that it would get some of those fields out from the end of a 40 or 50-year queue to come through the Gorgon facilities and they might actually be used to supply domestic gas much nearer.

The CHAIRMAN: Can I just explore those dimensions? What do you mean by "stringent"? It was in the appendix to our submission, which I think you wrote to the ACCC.

Dr Joy: It was actually for the Department of Resources, Energy and Tourism.

The CHAIRMAN: Okay. What kind of criteria would you think needed to be tightened up?

Dr Joy: I think that one could certainly have regard to the arguments that some of these fields are not able to be commercially developed into the domestic gas market at the current time. I think that one could clearly demonstrate that it is perfectly commercial to develop some of those fields into the WA domestic market at the present time. I do not think there is any doubt about it.

The CHAIRMAN: That referred to the profitability criteria.

Dr Joy: Yes. One would perhaps seek to use agreed price and cost criteria and an agreed rate of return threshold, and one could test whether the holders of those retention leases were justified in claiming that those fields were not commercial to supply the domestic market at this time.

The CHAIRMAN: Apache is an evolved kind of market-orientated firm, and you are suggesting something that is slightly off-market.

Dr Joy: I do not think so.

The CHAIRMAN: That is, the government regulation of our retention leases.

Dr Joy: I am suggesting that the retention lease policy be stringently imposed.

The CHAIRMAN: Okay. Do you think the traditional LNG producers have an incentive to warehouse gas before the LNG and therefore hold them out of the domestic market, even though they could make a quid and perhaps an equal return on the domestic market?

Dr Joy: I think that some of these fields may be retained because of the length of the contracts which potentially have been signed by the LNG project proponents.

The CHAIRMAN: So that is to build up reserves to strengthen the investment and the length of the contracts for contractual flexibility?

Dr Joy: Yes, that is possible.

The CHAIRMAN: Could you give evidence of where that has happened?

Dr Joy: No, I really could not. I have to say that this seems to me to be the case from what I observe, but naturally I am not a party to the commercial contracts between the retention lessees and their potential LNG purchasers.

The CHAIRMAN: There are retention leases onshore and in the inshore state area. I understand that they apply the same basic methodology. Are there any issues there?

Dr Joy: Not particularly, except to say the way that the geology works, in Western Australia anyway, the larger fields tend to be offshore. I guess we have discovered over the past 15 to 20 years that the very largest fields are in quite deep water and, conversely, in the very shallow water, the fields tend to be rather small, so they are not going to make a great deal of an impact on the price of domestic gas in this state.

The CHAIRMAN: Do you have any views on the joint marketing arrangement?

Dr Joy: I am not actually on the marketing side of the business. I know that Apache sells jointly with some of its joint venture partners and we have individual contracts, we have a regulator, and what we do is subject to the regulations of the ACCC, the same as Gorgon and the North West Shelf are subject.

Mr Weaver: That is a fair summary.

The CHAIRMAN: You have made a number of statements about the reservation policy. Can you express your views on it?

Dr Joy: The policy is a disincentive to investment. What the policy effectively does to specialist domestic gas providers, like Apache, is that it holds out the threat that at some point in the future, large quantities of gas, unrelated directly to demand, shall be obliged to be supplied by LNG project proponents into the domestic market. This is kind of like a sword of Damocles over us because it is going to drop the price. So we are trying to set up long-term mutually advantageous contracts with our purchasers, and potentially our purchaser is looking at 200 TJ coming out of Gorgon and 150 TJ coming out of Pluto and all the rest of it, and he is asking, "Why should I contract with Apache, when I can just wait for the government to bring me this gas in the future, which will be cheap?" So it is a disincentive for us to invest in fields for the domestic market. I also say that it is a disincentive to LNG project proponents. It has undoubtedly had the effect of delaying some LNG projects in WA and it may have had some effect on the decision of the Ichthys joint venture to go to the Northern Territory. Basically, what you are obliged to do, subject to the domestic gas reservation policy, is to first of all quarantine 15 per cent of your reserves for the domestic market, so you have basically cut your resource by 15 per

cent. Secondly, you are obliged to build infrastructure to get that gas into the domestic market, which is an additional capital burden on what, as you have already said earlier, is an extremely capital-intensive investment, to get an LNG plant up and running. So it is undoubtedly disadvantageous both to the LNG project proponents, of which I suppose we are now one, and to the specialist domestic gas producers.

[2.10 pm]

Mr W.J. JOHNSTON: How many years' production do you have in reserve?

Dr Joy: Apache?

Mr W.J. JOHNSTON: Yes, in Western Australia.

Dr Joy: I am not sure if we publish that figure, but I think I would like to take that question on notice. It is pretty simple for me to give you, on the basis of all our reserves in WA and our production rate in WA—what we call an "R over P"—the reserves to production ratio. But that will basically bundle together all domestic gas, all LNG and all reserves, so I am not sure that it is a very helpful figure. Typically, oil companies will run with an R over P number of somewhere between six and 20 years. If you have an R over P of six, you are living hand to mouth; if you have an R over P of 20, you are not commercialising your reserves far enough. People like to be somewhere in between the two.

The CHAIRMAN: Where was Shell about a decade ago?

Dr Joy: I do not know the answer to that, but it is a good question.

The CHAIRMAN: What other issues in terms of what governments look at to make sure this lumpiness in the structure of the market is more smooth in terms of getting adequate supply response to demand? You indicated in your submission that you were of the belief that domestic prices in new contracts exceeded offshore netback LNG prices.

Dr Joy: I do not think I did; no, I do not think so. Let me say something about that, because we sat through the submission and we heard the discussion at that time. There should be no reason why a company like Apache should not be indifferent to selling its gas to the domestic market or selling its gas as LNG, if the netback price is exactly the same. If we are receiving $6 netback per MCF, we are completely indifferent as to whether it goes to the domestic market or goes to North Asia as LNG. The two critical things to bear in mind are these: first of all, when the North Asians come to buy LNG, they buy all of it. They are the ideal buyer, because they are buying for the long term and they will say, "We'll buy for 15 years, and then we'll have an option on another 10, and then maybe another 10 after that". These people are buying for the extremely long term and, of course, if we sold all our reserves to the Japanese, we would not have any to sell into the domestic market; that is one thing. The second thing is that there was a discussion earlier on about the difference between the netback price and the input price into an LNG terminal. It is pretty easy to work out what the netback price is. On a pre-tax basis, if the netback price is the same, we do not care—contractual obligations aside—which market we sell gas to. However, I think there is a notion out there that the price for gas into the domestic market in WA should be lower than the notional selling price of gas into an LNG plant. I want to make the point very clearly that there is no such price marker; no deal has ever been done in Australia where an offshore gas provider has sold its gas to an LNG plant. That has never, ever happened. I do not know of an instance anywhere in the world where this has happened, so the notion that one can somehow derive a notional selling price from the North West Shelf joint venture offshore to the North West Shelf joint venture onshore, and say, "That's the price below which domestic gas has to be sold in WA" is wrong; there is no such price marker, and consequently it is going to be very difficult to regulate price on that basis.

The CHAIRMAN: What you are saying is that at least with LNG you have some prices—many prices, but under contract. Once you get one of those prices—you choose them—and netback, and you can find out what the value —

Dr Joy: Yes, you take off shipping and you take off liquefaction and you take off marketing, and there you are.

The CHAIRMAN: Then there is another issue that if you go to the other end, towards the production end, and you try to find out what the cost is and therefore assign a price to it, it goes in and there is no market price for it anywhere.

Dr Joy: No, there really is not.

The CHAIRMAN: Okay. The DomGas Alliance has been out there publicly arguing something similar to that.

Dr Joy: Okay.

The CHAIRMAN: It has been very public with its statements and whatnot. Your view on this is: how would we go about doing it? There is no benchmark.

Dr Joy: There is no arms-length transaction. The reason that LNG project proponents tend to own everything from the field to the jetty—sometimes they even own the ships as well—is that LNG tends to be produced as part of an integrated activity. It is very, very difficult to think of an instance where LNG is not owned in that fashion.

Mr W.J. JOHNSTON: Many LNG projects that I have read about in the world are controlled by state oil companies. Does that have any impact on the way in which these projects go ahead?

Dr Joy: I believe that the model I have described is by far the most common model.

The CHAIRMAN: There are rumours of a growing spot market for LNG and a large swap market, but that does not mean that we would get back to segmenting the market in terms of sale points.

Dr Joy: Again, yes, but it is a spot market for sales from the jetty; it is not a spot market for sales from the reservoir to the plant. There may be a growing spot market, but I can tell the committee that nobody has ever built an LNG project in Australia with less than, I think, about 85 per cent commitment to long-term gas sales contracts. If the field overperforms or if the liquefaction train overperforms, they may have some cargoes for spot, but people are still looking for that long-term, mutually advantageous relationship between buyer and seller, which enables the project to go ahead by providing the LNG project proponent with the gas price that gives its shareholders the return they expect.

The CHAIRMAN: Do you expect that market structure to continue for the foreseeable future?

Dr Joy: Actually, I think it is liberalising a little bit. I think we can see in the Wheatstone example that it is being set up as a hub, whereby potentially new players could come along and build trains on some of the spare land.

The CHAIRMAN: Where is that?

Dr Joy: That is at the Ashburton north strategic industrial area, near Onslow. The LNG market is liberalising a little bit, but the buyers have a very traditional view and my experience is that things change very slowly in the world of LNG.

The CHAIRMAN: We got distracted a bit from whether the international price is higher. When you look at this market, you can see that it is very lumpy and not very competitive in terms of both the owners and pipelines.

Dr Joy: I would not say that it is not very competitive; I would say that it is illiquid. I do not think that that is the same as uncompetitive.

The CHAIRMAN: It is not a quickly connected market.

Dr Joy: No, certainly not. It is not efficient.

The CHAIRMAN: Yes. What policies do you think that a government can make to, in some way, emulate what has happened on the eastern seaboard, which is quite phenomenal in terms of structure. There are multiple producers, easily accessible and multiple pipelines, the ability to respond quickly to capacity outside the regulators, because it is unregulated and multiple buyers.

Dr Joy: I guess there are all sorts of different things, and some of them are really impractical because of the nature of the infrastructure we have there. As Tom Baddeley of APPEA said earlier on, it is a very

long distance, and there is only one pipeline connecting the sources of supply with the customers. Certainly at the top of my list is the domestic gas reservation policy, which acts as a disincentive to new entrants. There is the retention lease policy, which acts as a disincentive to new and established market players. I have heard from a lot of the smaller players that the burden of regulation is extremely onerous, so that, in a sense, is a barrier to entry. Those are three of the things that, if you are looking at policy levers, must be at the top of the list.

The CHAIRMAN: What do you hear on regulation?

[2.20 pm]

Dr Joy: Actually, we made a submission to the Productivity Commission investigation into the burden of regulation on the offstream oil and gas industry.

The CHAIRMAN: When was that?

Dr Joy: That was a couple of years ago. We made quite a lengthy submission there, and so did APPEA, by the way. We found that there was quite a lot of duplication between different governments; and, to be honest with you, having been encouraged by the fact that that inquiry had been set up, we were very disappointed by the fact that it does not appear to have achieved anything subsequently. There is a very high-profile ongoing dispute between the state and commonwealth governments as to how the offshore oil and gas industry is to be regulated.

The CHAIRMAN: You were sitting at the back when I read out this article in *The Weekend Australian* by Peter Hartley from Rice University. He said basically that WA has the highest costs of any LNG producer in the world. What are the impediments? Is there anything that you can do policy wise to drive some of the costs out of it?

Dr Joy: If I can first of all start by answering a question that you asked APPEA, which is why are people flocking to develop Australian LNG despite the fact that it is the highest cost LNG to produce in the world, which is probably a true statement. The reason is, first of all, that the geopolitical risk is probably lower in Australia than in any other major potential producer of LNG, and, secondly, we have got the reserves. There is 160 TCF sitting out there. You have got Malaysia and Indonesia, traditional LNG producers, actually cutting back on exports because their domestic demand is increasing and they want to keep something back for their domestic market.

The CHAIRMAN: So in Kuching, or outside there, they are not expanding; they are cutting back?

Dr Joy: Yes. So into North Asia, you have got basically Qatar, and Australia. They are the two principal producers. The Japanese like to take a portfolio approach to their suppliers. I have heard anecdotally about their relationship with the Qatarese. The consequence of what I have heard anecdotally is that they like to have a good proportion of Australian LNG, perhaps to replace Malaysian and Indonesian LNG in their portfolio. So, yes, geopolitical and reserves issues, basically they mitigate the high costs. What are the reasons for the high costs? Well, the regulatory burden, the cost of labour, and the remoteness of the locations. Those are the three things.

The CHAIRMAN: You cannot really do much about the remoteness.

Dr Joy: No, you really cannot! I do not have a solution for that!

The CHAIRMAN: We could work on it—maybe royalties for regions! But with labour costs, is it not the case that there is a limited pool of people who float around the world working on LNG projects; therefore, labour can be very difficult to find up on the North West Shelf?

Dr Joy: Well, not everybody who works on an LNG plant is an LNG expert.

The CHAIRMAN: Are there policies, perhaps at a federal level, that you could bring in if there are labour shortages? I have heard that various LNG projects are actually warehousing labour to develop their next project.

Dr Joy: Well, you would, would you not? This is not my area of expertise at all, and I do not have anything to remark on that, but I will just make one remark—David has just prompted me—about cost. I

believe from observers who were present when the DomGas Alliance presented to your committee that reference made to the fact that lifting costs had increased by only a very small amount —

The CHAIRMAN: From 31c to 55c.

Dr Joy: Yes, exactly. I did not want to let the opportunity of talking to your committee pass without saying that that is really just taking aim at the wrong thing. Lifting costs has got nothing to do with it. It is all about capital costs in our industry. Our investment decisions are far, far more heavily skewed towards the importance of capital costs than lifting costs. That is particularly so in a very lumpy market, where you probably have to install a new platform and a pipeline, and maybe a new plant, to bring a new field to the market. That is exactly what we have had to do in the case of Reindeer. We developed a field called John Brookes for first gas in 2003, and we are now developing a field called Reindeer, as I said before, for first gas in 2011. Those two fields, in terms of the design of the offshore pipeline and platform, are pretty much identical, and the amount of gas that they are exploiting is very, very similar. Reindeer, eight years later, cost two and a half times as much to build as the equivalent work scope on John Brookes—two and half times as much. So when APPEA talks about doubling or trebling of costs over the last seven or eight years, we have got absolutely rock-solid evidence that this has happened. I do want to emphasise that it is the capital cost, not the lifting cost, which is influencing the rapidity with which gas comes into the WA domestic market. The reason your committee has been set up, I would like to suggest, is because there is disquiet about gas prices rising in the future. Well, the fact that these gas prices are rising in the future has basically caused a doubling of the number of domestic gas possessing plants in the state, if you count Devil Creek, which is under construction, and Macedon, which is about to commence being under construction. So, the market is working, albeit it is a lumpy market, and it takes a while.

The CHAIRMAN: There has been an increase in the number of processing plants, but also there is a concern about the capacity and long-term production of domestic gas from the North West Shelf. That is the uncertainty. That underlies about 60 per cent of the gas market now, and there is some uncertainty related to that.

Dr Joy: Sure, and that is something I cannot talk to, except to say that the general principles affecting Apache's business will be the same as the general principles affecting the North West Shelf joint venture's business. Provided the reserves are there, and the purchasers are able to pay the price required for the investors in those companies to make the returns they expect, the gas will continue to come into the domestic market from that source.

Mr W.J. JOHNSTON: I just want to follow up on that question, because previously when you were talking about the North Asian buyers, you said—I did not write down your exact words—they will take all the gas that you have got. If there is this massive piece of infrastructure, this five trains of export LNG, and we have not taken evidence from those operators yet, but clearly any businessman with that same capital would say, "Let us get as much as we can out of it". Is there any risk in the future that they will put gas through the LNG plant, because that is probably the cheapest LNG they can sell, and therefore the margin is larger—and as you say, the Japanese will take all the gas they can get—and there is not enough gas left over to supply domestic demand?

Dr Joy: I think what I would say in response to that is that there has been a long-term relationship between the buyers and the sellers in that project, which has caused that current circumstances to arise. But there is nothing magic about LNG. As I say, we should be indifferent to the netback price; if it is the same, we should not care about which market we are going into. If we had domestic gas purchasers willing to enter into 25-year contracts, admittedly at much smaller volumes, then that would give us the certainty that we need and we would be able to take a much longer term view on our investment decisions in the knowledge that we would have a 25-year business rather than possibly a seven-year business.

Mr W.J. JOHNSTON: We have not yet taken any evidence on this, but I have read that domestic consumers are saying they cannot get long-term contracts.

Dr Joy: No. What they are saying is they cannot get long-term contracts at the prices they used to pay. There is a difference.

Mr W.J. JOHNSTON: I have read that people are saying they cannot get long term at any price.

Dr Joy: That is simply not true. There is 160 TCF of gas out there. There are no barriers to entry. Apache and the North West Shelf joint venture do not have a monopoly on exploration permits. There are lots and lots of exploration companies out there who would be prepared to explore for and develop gas given the right price signals.

[2.30 pm]

The problem is that people are still living in a $2 or $3 paradigm. You simply cannot do discounted cashflow economics, making it worth your while to drill an exploration well at $2 or $3. This is how we started. If you enter the new paradigm, oil has gone up from $20 to $75—there is a new paradigm out there. People are starting to wake up to the energy shortages that the world is starting to enter into. The cost increases for goods and services go with it. We have very successfully placed new gas in the market in recent years, despite the fact that we have had an oil price peak and then the global financial crisis. Now we are back to somewhere a little like where we were three or four years ago. We have continued to successfully market gas to customers through that time. It is simply not true for people to say that they are physically unable to locate gas supplies. They are saying that they may not have a business that is in sufficiently robust financial health to pay the prices that they will be obliged to pay in order to ensure those new supplies come to the market.

The CHAIRMAN: As the second largest domestic supplier of gas and one committed to the long-term supply of gas in the domestic market, you are essentially saying to your customers that there has been a paradigm shift away from what occurred in the 1990s, when you had very low priced domestic gas. Along with the domestic oil and gas prices, as well as internationals shutting up quite significantly, it looks to remain that way for the long term. Is that what you are saying?

Dr Joy: I cannot make a prediction about where oil prices are going to go.

The CHAIRMAN: If oil prices shut down, your cost structure would stay the same.

Dr Joy: The cost structure would respond.

The CHAIRMAN: Production would respond.

Dr Joy: The cost structure would respond as well because a lot of the suppliers of goods and services would go bust and some of them would undercut one another and prices would fall.

The CHAIRMAN: Your outlook for the domestic price is that there is no going back to the $3 price. Is that essentially what you are saying?

Dr Joy: I am certainly not saying that. As I think I said in an earlier response, if we were able to find a gas field that we could commercially exploit at $2.50 and still make a return, we might, all other things being equal, be prepared to sell at that price. The easy gas, the shallow water gas, the rich gas with a great deal of condensate in it, which increases the value of it, has all gone. The global trend is being followed here. There is plenty of oil out there; there is just no oil that is worth exploiting at $20 a barrel. Gas is going the same way. It is just a function of our efficiency in exploiting sedimentary basins. We find the big easy fields in shallow water and shallow drilling depth first and as time goes by, we progressively find more difficult fields—geologically more difficult with more inerts, less condensate, more distant from the markets, further from shore and in deeper water. They are more expensive to exploit, and it is really all about cost.

The CHAIRMAN: You provided that data on your two fields—the John Brookes and the Reindeer. Do you think this cost pressure will continue?

Dr Joy: I think it will stabilise. That is my personal view. There is some evidence that oil prices are stabilising but I really would not want to be in the business of predicting where oil prices are going to go. I think a lot of commodities move in lockstep. If you look at our aluminium and steel, like oilfield

goods and services and the price of oil itself, they have all tended to move up and down in a somewhat similar fashion.

The CHAIRMAN: I think BP's forecast of last year showed that it was the first time world energy consumption levelled off. That is countervailing depression in energy markets in the OECD versus the huge growth in China, so who knows what is going to happen.

On page 2 of your submission you provided your average natural gas price for the domestic WA market from 2007 to 2010. Is this price ex-plant or on a delivered basis?

Dr Joy: That is what we get paid. Ex-plant is a cost. These are not costs; these are prices.

The CHAIRMAN: Are they in US dollars?

Dr Joy: Yes, US dollars per thousand cubic feet. By happy coincidence, US dollars per thousand cubic feet is about the same as Australian dollars per gigajoule.

The CHAIRMAN: How much closer are your most recent contracted prices, such as your deal with CITIC Pacific, to this 2010 average figure?

Dr Joy: I would prefer to say that we are not going to see a dramatic jump when we start selling gas out of Devil Creek. The reason I say that is because a lot of the contracts that underpin the prices you see here are very long-term contracts and they will continue to have us selling gas into the WA market at quite modest prices for many years to come.

The CHAIRMAN: Your contractor CITIC Pacific is on a fixed price, and then in the not-too-distant future it goes to oil-based pricing.

Dr Joy: There is an oil linkage after four years. Initially, it is a CPI linkage. We have press released this.

The CHAIRMAN: It is out in the market.

Dr Joy: In the press release you can read that our CEO said that there are significantly higher natural gas prices in WA. He also made the observation that these significantly higher natural gas prices for new contracts, not for all of our contracts, has enabled large capital commitments required to develop new fields such as Reindeer. If that CITIC Pacific contract had been $2, it would not have got its gas, and it needs a lot of gas. That is a magnetite mine. It needs a lot of gas, otherwise it burns diesel, and, believe me, we are undercutting diesel by a long way.

Mr W.J. JOHNSTON: Just to switch topics a little, when APPEA was here, we heard—it has been put to us elsewhere—that one of the issues about the lack of transparency in the market here compared with the east coast is the question of storage. Do you have any comment to make about that?

Dr Joy: I have a lovely statistic which is that the United States has 50 days of storage, and in Western Australia there is less than one day of storage. Storage certainly would help to make the market more efficient. There is no question about that. More than that, I cannot really say. It typically comes down to where you put gas. When you want to put a gas storage pipe together, you usually either put it in depleted gas fields or underground salt mines. Those are the two places you usually put gas because they are both basically gas-tight voids in the ground. I do not know of any old salt mines in WA but there are certainly some depleted gas fields around the place. Potentially, there is the option for storage for the future.

Mr W.J. JOHNSTON: People say that that was highlighted with the Varanus explosion at your facilities.

Dr Joy: Whenever there is an interruption to supply, storage is one of the things that people start to look at. Storage is expensive though. Typically, you will have to redevelop an old field for storage. It is quite capital intensive.

Mr W.J. JOHNSTON: On that same issue, people have often raised with us the question of the fragile nature of having a single line coming to Perth. They use the Varanus explosion as an example of the fragile nature of the infrastructure. I understand that a production facility, not a transport facility caused the problem.

[2.40 pm]

Dr Joy: Whenever there is a disruption in supply, people look at the nature of the infrastructure. It is not difficult to look at the nature of the Dampier to Bunbury line and to say that you need only one mishap on that line and not only would 30 or 35 per cent of the gas supply be disrupted for a period of 50 days, as was the case after the Varanus incident, but the entire gas supply of Perth might be interrupted for an indefinite period.

Mr W.J. JOHNSTON: It has been put to us that if the Dampier pipeline was interrupted, that it would not take a particularly long period of time to have it rebuilt. That experience —

Dr Joy: I am not a pipeline engineer, but I guess it depends on the nature of the disruption.

Mr W.J. JOHNSTON: Sure.

Mr Parker: I think, Mr Johnston, there are strategies in place like line pack. I think that the pipeline upgrade of the pipeline, with a lot of the looping and what have you, there are opportunities to push product down-line further on. I am very aware that along the Goldfields gas transmission line, when we have shutdowns for cyclones offshore, there are particular fuel dumps in terms of conversion. Mines and operations will get the signal once the indication comes through from the Bureau of Meteorology that things are turning a bit dark, and then there is fuel switching across to distillate up and down the GGT.

Mr W.J. JOHNSTON: Sure.

Mr Parker: That is certainly on the GGT side of things.

Dr Joy: If I may say, trying to bring this back to the subject of your committee's inquiry, that what you are talking about in terms of storage and means to reduce exposure in the case of a problem with the Dampier to Bunbury line, are forms of insurance and insurance costs money. So these will be upward pressures on price; they will not lower prices.

The CHAIRMAN: In the eastern states they are building some storage—as I understand, it is being built largely in Victoria—mainly for demand management, but it has that insurance mechanism. It is the same in the states; it is for demand management and for accumulating the gas where it is demanded.

Dr Joy: Sure.

The CHAIRMAN: Apache has a sizeable investment in shale gas in North America.

Dr Joy: In Canada in particular, but I believe that we also have some shale gas plays in the lower 48 now.

The CHAIRMAN: Okay. Are you interested in exploring that unconventional gas in WA? Have you discussed it?

Dr Joy: I think the answer to your question is that we have had an explicitly offshore focus since we arrived here 20 years ago and it would take quite a change in this region's activities, skill set and outlook. At the same time, we have some extremely good fields and prospects in the offshore that are likely to continue to underpin our supplies into the domestic market for some time to come. As I keep saying, you do not want to draw the parallel with North America too far. In 2003, North America thought it had a physical gas shortage so was building LNG import terminals, and lo and behold, shale gas technology improved and now North America thinks it can export gas because it has so much shale gas. Western Australia never had the first of those conditions. It never had a shortage of offshore gas—well, not in the past 20 years. There has always been enough gas. The issue is not finding more gas because we are running out; the issue is the correct economic and policy settings to allow people to bring that gas to the market. As I say, you cannot take the analogy with North America too far.

The CHAIRMAN: Even though you are very experienced with unconventional gas in other jurisdictions, in your view you are going to continue to focus offshore in Australia. I assume you are doing that not only because of your skill base, but because you think that that is where the best bang for your buck is.

Dr Joy: It should continue for the foreseeable future to be the lowest unit cost of production.

The CHAIRMAN: Including unconventional gas?

Dr Joy: Correct; that is right.

The CHAIRMAN: Okay. I have read in the paper that others are looking for unconventional gas.

Dr Joy: Yes; that is great. That is fine. That is as it should be. However, as I have said, we see the most profitable place to play in WA right now is offshore.

The CHAIRMAN: Okay. You are in a number of other jurisdictions. Do you think that Western Australia is one of the more, let us say, prospective ones for your operation? If we can just go back to where I started.

Dr Joy: Do you mean prospective in a geopolitical sense?

The CHAIRMAN: No; overall. I think you can look around the world and put your money where you want to. You know this place very well. Do you think that we are a very prospective place to invest your type of business—a mid-cap specialising in non-LNG gas and whatnot?

Dr Joy: Yes; I think so. I think we like to take what I call aboveground and belowground risks into account. The belowground risk is obviously the chance of finding sufficient quantities of oil and gas to be able to be developed, and the aboveground risks are things like political security, fiscal and sovereign risk, and all that kind of stuff. We have had a couple of shocks on the sovereign risk side in Australia recently with the RSPT and now the MRRT and, I should mention, the carbon pollution reduction scheme. Fortunately, none of those appear to affect Apache's business too directly; however, they do potentially hold out the risk of affecting our customers' businesses very badly and if I were to say, going right back to the beginning, why Apache likes to invest in some of the countries it is in, I would say that we like fiscal stability; we like regulatory stability; and that we do not like retrospective legislation because it invalidates the premise of the basis on which you went to your board for the investment capital to develop the resource. We are concerned that some of the fiscal and other regulatory changes are potentially damaging for our principal customers in WA.

The CHAIRMAN: We heard quite extensively in the eastern states about the lack of certainly carbon pricing and that there is a lot of uncertainty in the market generally, particularly the gas market, over there. It is a bit different here. We use a lot of gas for electricity generation already. What is your issue about carbon pricing in Australia—not so much globally?

Dr Joy: As a domestic gas producer, we see ourselves as cautiously optimistic about the effects of a carbon price because it is going to disadvantage coal, which is very dirty and something that we really have to get rid of it as soon as possible—looking to a cleaner energy future. Secondly, gas is really required in order to let a lot of the —

Mr M.P. MURRAY: So you do not believe that there is any clean coal technology?

The CHAIRMAN: I must introduce Mick Murray, the member for Coal—I mean Collie!

Dr Joy: The other thing is that a lot of the renewables really rely —

Mr M.P. MURRAY: If you keep stretching that lacky about how much difference there is I will —

The CHAIRMAN: We get this in Parliament all the time.

Mr Parker: Good afternoon, Mick.

Dr Joy: You are going to need gas to let a lot of the renewables work: the wind does not blow all the time and the sun does not shine all the time and you would fill in the spaces with gas. So that is a good thing. As an infant LNG player and in line with Mr Klopper's speech last week, we are concerned that if we move to a price on carbon ahead of the rest of the world—which is probably a good thing in the domestic sphere—that our trade-exposed industries are protected; otherwise, as night follows day, people will export not commodities but whole industries to places where they are less stringently environmentally regulated and the net effect will be an increase in carbon pollution and a reduction in environmental protection standards across the board. You have to protect your trade-exposed industries

and obviously the one closest to our heart is the LNG industry. However, I am sure that alumina and coal and all the rest of them feel exactly the same way too.

Mr W.J. JOHNSTON: Following on from that: the alumina industry says that by increasing energy prices we will be exporting the industry to a lower-cost energy location. Is that not the same argument applied to —

[2.50 pm]

Dr Joy: No, it is a different argument. Is the aluminium industry supposing that we should run our gas fields at a loss in order that they should make a profit?

Mr W.J. JOHNSTON: I do not know. I am putting their perspective. We have not interviewed them yet.

Dr Joy: Those companies operate in a free market just as we do. I guess we are not obliging anybody to pay our prices. All we are saying is that we are going to develop the gas only if you pay prices that will reward our shareholders for the use of their capital.

Mr M.P. MURRAY: There are some gas leases where some small amount has been found on the lease, but it has been sat on and not fully developed and not fully looked at to see whether it is a profitable position. I am wondering what you think about those people when in some cases you could have an amalgamation and still have domgas as well.

Dr Joy: We did talk about this before you came in. We are very much in favour of a very much more stringent application of the commerciality test in the retention lease regulations than has been custom and practice in recent years. We do think that gas is being warehoused for export and we do think that some of those retention leases should be made available in order that the fields can supply the domestic market now rather than supply the Japanese in 50 years.

Mr M.P. MURRAY: I will look at the transcript.

Dr Joy: We have talked about that. Yes, I absolutely sympathise with the intent of the question.

The CHAIRMAN: Thank you very much. Do you have any other comments that you want to make?

Dr Joy: I do not think so.

Mr Parker: No.

The CHAIRMAN: Dave has been remarkably quiet.

Mr Parker: Under strict instructions!

The CHAIRMAN: Thanks for your evidence today before the committee. A transcript of this hearing will be forwarded to you for correction of minor errors. Please make these corrections and return the transcript within 10 working days of the covering letter. If the transcript is not returned within this period, it will be deemed to be correct. No new material can be added and the sense of your evidence cannot be altered. Should you wish to add any additional information or elaborate on particular points, please include a supplementary submission. If any other issues subsequently come up and you want to make a supplementary submission, we welcome it but we need it in about three weeks' time.

Dr Joy: We appreciate that. Was there anything on notice? There were a couple of things that APPEA took action to respond on. Was there anything that we took a specific action to respond on?

The CHAIRMAN: You can send a letter. I cannot remember anything.

Hearing concluded at 2.52 pm