

**ECONOMICS AND INDUSTRY
STANDING COMMITTEE**

INQUIRY INTO DOMESTIC GAS PRICES

**TRANSCRIPT OF EVIDENCE
TAKEN AT PERTH
MONDAY, 25 OCTOBER 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 10.32 am**DAWSON, MR ALLAN HUNTER
CEO, Independent Market Operator WA, examined:**

The CHAIRMAN: Welcome, and thank you for your attendance. I will read the opening statement first. This committee hearing is a proceeding of Parliament and warrants the same respect that proceedings in the house 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 number of procedural questions I need to ask. Have you completed the “Details of Witnesses “ form?

Mr Dawson: Yes.

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

Mr Dawson: Yes.

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

Mr Dawson: Yes.

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

Mr Dawson: No.

The CHAIRMAN: The committee thanks you for your appearance today. Do you have any questions or do you wish to make an opening statement?

Mr Dawson: No.

The CHAIRMAN: Could you describe the Independent Market Operator and what it does and how it could potentially relate to the gas industry?

Mr Dawson: Sure. The IMO is a body corporate. It was established in December 2004 to administer and operate the wholesale electricity market of Western Australia. Its key roles and functions are set out in the electricity industry regulations of 2004. There are two sets of regulations that apply—the Electricity Market Regulations and the Independent Market Operator Regulations. There are also the Wholesale Electricity Market Rules, which is a some 500-page document that represents the rules of the Wholesale Electricity Market. Largely we are responsible for the following aspects of the wholesale electricity market: operating of the reserve capacity mechanism; operating the short-term energy market and balancing market; and settling those two markets, including management of the prudential risk within the wholesale electricity market; market development, including rules evolution, and market systems, including publication of all market data. The IMO board is appointed by the Minister for Energy and is the primary governance body of the Wholesale Electricity Market. The IMO role in the electricity market commenced in 2005 with the establishment of the reserve capacity mechanism. The energy market commenced in September 2006. The Electricity Industry Act 2004 outlines a set of market objectives that all market rules are assessed against, including any market rule changes. The reserve capacity mechanism is a mechanism to procure capacity, essentially two years in advance to meet Western Australia’s need. We establish a price based on a theoretical marginal technology, which at this stage is the entry of 160-megawatt open cycle gas turbine; so it is a theoretical construct of the price of entry for that technology. Over the past five years we have seen the installed capacity of Western Australia move from about 3 500 megawatts to close to 6 500 megawatts. This mechanism has kept up with the

impressive economic growth of Western Australia. Essentially capacity grows in line with the economic growth of the state.

The CHAIRMAN: Is that just in the SWIS or the whole state?

Mr Dawson: Everywhere in the world capacity grows with --

The CHAIRMAN: No --

Mr Dawson: Sorry; we operate in the SWIS; we do not operate outside the SWIS. The energy market is predominantly a bilateral contract market so participants contract between themselves, although the IMO operates a short-term energy market and a balancing mechanism which allows participants to trade around the outside of their bilateral contracts. We have seen the short-term energy market price go from, at market commencement, approximately \$55.50 per MWh to \$31.30 per MWh during the four years that the market has been operational. The balancing price has had a similar trend, moving from \$67 per MWh down to \$32.50 per MWh. We have also seen the increase of market volumes exposed to both of those price movements moving from 5.5 per cent of the market at market commencement to 11.3 per cent of the market in 2010. Gas has a significant influence on the electricity market with over 50 per cent of our installed capacity gas-fired or dual-fired, which means either gas and liquids or gas and coal. Gas is becoming an increasingly important bridge between intermittent renewable generation, which is heavily incentivised by various federal policies and our baseload coal. That is really the relevance of the gas with the regard to the wholesale electricity market. It plays an important role in our market.

[10.40 am]

The CHAIRMAN: Just to clarify a couple of points: one is, we heard this figure about how important gas is to electricity production, he said 55 per cent —

Mr Dawson: Approximately 50 per cent.

The CHAIRMAN: How many of the electrons consumed, are produced from gas?

Mr Dawson: I do not have that figure with me at the moment, but can I take it on notice?

The CHAIRMAN: Yes.

Mr Dawson: And I am happy to provide a breakdown of energy generated each —

The CHAIRMAN: Because there is a difference between installed capacity and production —

Mr Dawson: There is.

The CHAIRMAN: — because a lot of gas installed capacity is peaking and sits around and does not do much except at peak time.

Mr Dawson: Yes. I am happy to provide that data.

The CHAIRMAN: Great, okay. You mentioned that one of your tasks is to predict long-term needs for installed capacity. Is that a two-year time horizon?

Mr Dawson: We secure or procure capacity two years out—more like two and a half years out. However, we project electricity load 10 years out, so we get a fairly clear signal of what Western Australia's load will be for 10 years, and we procure capacity to meet the two and a half year load forecast.

The CHAIRMAN: What do you mean procure?

Mr Dawson: We run an annual process where potential providers of capacity, and existing providers of capacity, apply to provide capacity. We then do a due diligence process across that capacity, particularly the new capacity, and we will then allocate capacity credits, which are worth money to the market participants. Then they are free to go and trade their capacity credit amongst

themselves, or if they are unable to contract it bilaterally, the market will pay for it in two years' time when it is used.

The CHAIRMAN: Do you have any preference between coal and gas?

Mr Dawson: No, in fact our market objectives require us to treat all technologies evenly, so we have a very strong requirement to treat all technologies the same.

The CHAIRMAN: What about renewables?

Mr Dawson: Similarly.

The CHAIRMAN: Renewables are much more costly, let us say, than coal, so you do not want to be choosing too much in the renewables?

Mr Dawson: It is up to the investors who are investing in that technology. They receive the same income from that. So that is an investment decision made by the investors who invest in that. Clearly they will weigh up the incentives that they have provided and the revenues —

The CHAIRMAN: So the incentives are outside your domain?

Mr Dawson: Absolutely.

Mr M.P. MURRAY: My understanding is that there was a cap of roughly 3 000 megawatts on Verve or the government providers of electricity and that has now been removed. What impact has that had, if any?

Mr Dawson: I understand that it has not been removed. My understanding was that there has been a ministerial direction that was tabled—I have seen a copy of a ministerial direction that was tabled—that allowed for the cap to be eased until 2014, I think, with regard to Muja AB. So the impact of the market has been that the state allows Verve to enter Muja AB into the capacity market, which they have done for 2012–13 capacity year.

Mr M.P. MURRAY: So it is not a complete removal —

Mr Dawson: Not that I am aware of. Again it is from the ministerial direction that I saw; it was an extension until, and my recollection is, 2014.

The CHAIRMAN: So what is the significance of that?

Mr Dawson: Largely Verve, who is our dominant generator, it limits their ability to—while they can replace old plant under their cap, they were unable to invest in new capacity. That allowed for the private sector to invest in the market, and the capacity increase that I outlined before has been largely procured from the private sector. In fact, the state has paid very little role in that increase of capacity. So, Verve's installed capacity has moved from above 90 per cent at market commencement, I think it is projected in 2012–13 even with Muja AB coming in, to be about 53 per cent installed capacity.

Mr M.P. MURRAY: Just further on that, do you think it is then time, for the market forces to work, for that cap to be removed?

Mr Dawson: My personal opinion is that I would like to see Verve be closer to 40 per cent of the capacity market before it was removed entirely, but at some point, I think, that cap should be removed.

Mr M.P. MURRAY: One is about ageing capacity where they cannot reinvest, really, in a new plant that may be bigger and bring economies of scale, yet at the same time we have got this imbalance where—because they are a corporation as such, so really they should be in the market to be driving the private sector back down. Because, you know, the market itself: the private sector is working over there, you have got a major company over here that is not allowed to compete against it to be able to drive that price down. Do you have any comments on that?

Mr Dawson: I am not aware of the bilateral contract price, but certainly in the market we have seen prices reduced significantly, we have seen quite a lot of competition in the market without the modification of the cap. There is a certain amount of market dominance that you need to be careful of in markets and while I think there is a point where Verve should be allowed to freely compete, I am not sure where the balance is. My gut feeling would be around the 40 per cent of installed capacity mark, but again there would have to have some sort of economic analysis performed over it to determine what the appropriate level would be.

The CHAIRMAN: Are any of the alternatives to Verve becoming dominant players themselves?

Mr Dawson: Not that we can see, there is a very good—if you look at the players there, you have got Alinta, Griffin, Perth Energy, NewGen which is —

The CHAIRMAN: Wesfarmers?

Mr Dawson: Wesfarmers have a small retail market participant called Premium Power, but they have not gone into the generation sector competing with Verve. There is a very healthy mix of players and I would say that none of them have market power.

The CHAIRMAN: There is an issue with the regulated and unregulated side of the market, how do you play in those?

Mr Dawson: We run the wholesale electricity market to regulate—I assume you are talking about the retail market when you refer to the regulated market?

The CHAIRMAN: Yes.

Mr Dawson: Synergy is by far and away the most dominant retailer in our market, I think it is close to 80 per cent of the market. That is driven by both its regulated business and its unregulated business. We do not see an awful lot of detail on the retail market, other than them buying from our wholesale market, so we do not get to see that area, and really, I do not think we would even see a differentiation in the way Synergy procure their energy—I am sure their books have to be split internally—but we do not see difference in the way they trade for their regulated and unregulated books.

The CHAIRMAN: You observe the market, and gas is very important in generating electricity. Do you have any comments on the long-term capacity to supply gas? Do you hear issues about that?

Mr Dawson: From my perspective, I think there is a lack of transparency around gas supplies, both short and long term; I think supply and demand are very murky. We have seen, largely in the pages of *The West*, both sides of the equation; both the supply side and the demand side claiming opposing positions on the supply and demand balance. You have the gas users claiming that there is insufficient gas supply and the suppliers are suggesting that there is sufficient supply; they just have to pay for it. I think there is a need for greater transparency about gas supply and demand to enable both sides of industry—the supply and the demand side—to manage their risk appropriately. There is not a clarity around the supply and demand balance of gas and I think there is a need for it.

The CHAIRMAN: We obviously get the same feedback, there is a great deal of reluctance—most of it is about contractual arrangements—there is short-term trading, but again that is not fair—about transactions, it happens. What would your views be if the government said that all contracts have to be disclosed? Do they do this elsewhere, or would it be too much of an imposition on the rights of the contracted parties?

[10.50 am]

Mr Dawson: We do not do that in the electricity sector. We are able to provide a clear picture of supply and demand through a statement of opportunity document that we do for electricity. Clearly you could do something similar and give a supply and demand picture for the gas industry without necessarily seeing the contractual structures below. I do not necessarily think it requires the disclosure of commercial contracts in order to facilitate that.

The CHAIRMAN: Another issue is that contracts ain't contracts; it depends on the terms. You might have a contract that is 100 per cent take-or-pay without any flexibility, so you pay a lot less per unit than if you have a lot of flexibility. Does that apply to electricity too? Is there this diversity in the electricity market about the terms?

Mr Dawson: Again, I do not get to see the bilateral contracts and the flexibility —

The CHAIRMAN: But you would understand—you do not have to see the details.

Mr Dawson: I do not think they are as necessarily as strict as the gas. I think the inflexibility of gas transport and supply arrangements is quite an impediment to the electricity market. Often in electricity we see people trying to arbitrage their gas and electricity exposure; if they do not use gas in their generation, they may want to sell their gas. I am aware of restrictions on the onselling of gas that make that efficient mechanism not work very well.

The CHAIRMAN: Where do those restrictions come from—the contracts?

Mr Dawson: I am assuming the contracts, yes. We saw a little bit during Varanus Island; the IMO played a role in running a small gas bulletin board to enable the efficient transacting of gas. We saw parties with gas contracts unable to sell excess gas on the bulletin board as a result of those contract terms. In fact, the gas had reverted to the gas sellers, which they then onsold, I think. There was quite a lot of inflexibility and we were aware of —

The CHAIRMAN: Are there conditions in the contracts that stop people from selling to third parties?

Mr Dawson: Allegedly. Again, I have not seen the contracts, so I cannot comment factually. There were anecdotal comments made during that time that suggested that that was the case.

The CHAIRMAN: That is potentially a significant impediment to efficient operation.

Mr Dawson: Absolutely. It is no good having an efficient electricity market if there are impediments in the gas market, because they are so inextricably linked. In fact, globally we have seen gas and electricity markets coming together and having similar structures and disclosures and transparencies in order to facilitate that efficient transacting.

The CHAIRMAN: You are not across all the issues on the gas market, but what do you think could be done to improve the transparency and the efficient operation of the gas market?

Mr Dawson: Well, I think the recommendations from the Gas Supply and Emergency Management Committee is a starting point. I would start with two areas, which are embedded in the gas emergency management committee's recommendations. One was a gas SOO, which would be a longer term view of gas supply and demand, similar to the electricity SOO.

The CHAIRMAN: What do you mean by SOO?

Mr Dawson: Sorry—Statement of Opportunity. That is what the long-term planning document is for electricity. I think something similar to that for gas would be useful. Then having a picture of daily supply and demand, similar to a gas bulletin board that functions in the east, could be useful for people to understand how supply and demand varies on a day-to-day basis and from weekday to weekend and various periods of the day. I think that would be useful for people to contract and to empower both sides of the gas industry to understand the supply and demand balance.

The CHAIRMAN: Queensland's gas market is in a big state of flux, as you would know.

Mr Dawson: Yes, it is.

The CHAIRMAN: They looked at some policies and one of the things they have done is set up a gas commissioner who monitors the market and looks at it and gives an annual report about supply and demand balance and policies. Would this be useful?

Mr Dawson: I do not know the Queensland experience. I think there are enough entities within the industry to be able to perform those roles without creating a new role.

The CHAIRMAN: That is very admirable for a member of bureaucracy to say we do not need any expansion of the bureaucracy!

Mr Dawson: I am not part of the bureaucracy! I believe in markets and I believe that good market mechanisms deliver good efficient outcomes. I just think there are enough people with an eye on gas and electricity to perform this role.

The CHAIRMAN: Who would do that? Our task is to come up with a recommendation for an institutional structure that would improve the transparency and operation of the market. I think that will be a focus of the report, or at least be a discussion among members. What would your recommendations be?

Mr Dawson: You have an economic regulatory authority now that performs the roles, networks, and oversees the electricity market from the economically efficient perspective. They provide a report annually to the Minister for Energy, or Parliament, on the efficiency of the electricity market. It would not be a huge leap for them to do something similar for the gas industry. With regard to running the statement of opportunity and, I guess, bulletin board, I am reasonably frequently on record suggesting that I believe the IMO is the appropriate place to perform that function simply because of the links between gas and electricity. I believe there still is —

The CHAIRMAN: Are the methodology and software already developed over in the eastern states?

Mr Dawson: They are. The Office of Energy has run a process where they have asked both the IMO, and an organisation called REMCo, to put our credentials forward to run that. In the process of establishing credentials we had discussions with AEMO, the Australian Energy Market Operator, and they have indicated that they are prepared to supply the software on a cost basis to us. The methodology for the electricity statement of opportunity is already established. A gas statement of opportunity would not be a huge extension of that.

The CHAIRMAN: Do you have any issues about reservation policies? The government has a policy of flexible reservation of the offshore projects and they have to supply a certain negotiated percentage to the market.

Mr Dawson: Look, I do not really have a view on the reservation policy. That is really up to the policymakers of the state. I tend to like market forces to establish the supply and demand and the price balance. Artificial reservation policies have a tendency to cloud good economic signals. That is a personal view. I do not have a view on the reservation policy.

The CHAIRMAN: Are there any issues about alternative sources of gas in the market that you have heard about or dealt with? In Queensland there has been a rapid growth in unconventional resources that have affected the electricity market significantly.

Mr Dawson: And the gas market. The gas prices in Queensland have dropped away as a result of that as well, until they start exporting, of course. If you look at the United States and the tight and shale gas technology over there—I think there are some examples of tight gas in the state, in the Perth Basin, which is quite close to Perth. Keeping an eye on those technology changes and the costs of extracting gas from that type of rock structure will be interesting and it could play a part in Western Australian's energy in the medium-term future, but that is the only issue that I am aware of.

[11.00 am]

Mrs L.M. HARVEY: I am not familiar with the New Zealand energy market, but I understand that you were involved in the process when the wholesale energy markets were introduced.

Mr Dawson: I was.

Mrs L.M. HARVEY: I do not know about New Zealand gas reserves. Is New Zealand self-sufficient with its reserves or does it have any reservation policies on those reserves?

Mr Dawson: I am not aware of any reservation policies. New Zealand does not have export quantities of gas. It is a bit lucky; it does not export because the field size was not big enough to justify export capabilities. New Zealand has issues with its significant gas field—Maui gas—running out. It has been suggested that it ran out quite quickly as a result of not having very good price signals. There are very good price signals around scarcity of electricity supply, particularly in the New Zealand hydro-dominated power market; when water is scarce in the dams, the price goes up. It was not the same in the gas market. The supply from the Maui gas field ran out quite quickly. I understand that field's life has been extended a couple of times because of technological changes. But I think there is an issue with future gas supplies and some suppliers. There are fields that could be developed, but I think that they are looking for the New Zealand government to subsidise the development of the gas fields.

The CHAIRMAN: What did you mean when you said that there was some issue with the price of gas affecting the length of the life of the field?

Mr Dawson: There were no scarcity price signals. They were 25-year gas fields. They were priced quite poorly. There was no transparency around price so there was no scarcity pricing established for the resource. I cannot remember the price of gas, but it was quite cheap and it did not indicate whether supply and demand were tightening up. It meant that the resource was not well managed and that people's risks were not well managed. The New Zealand market was still building natural gas plants when supplies were running out. Really, it should have been looking at alternatives as far as investment and generation capacity were concerned.

Mr M.P. MURRAY: I have a very poor recollection of an electricity shortage in New Zealand at one time. Was that anything to do with the supply of gas? I am talking about something that happened a few years back.

Mr Dawson: You are talking about Auckland and when the networks failed. I think you are referring to the networks failing in the Auckland region.

Mr M.P. MURRAY: Yes; that is probably the one. I am just trying to think whether it was a supply issue or —

Mr Dawson: No; that was a technical delivery issue. They cooked a bunch of wires that supplied Auckland. For fear of upsetting a few people, they kept supplying Auckland when they had technical issues with the network and they ended up, essentially, frying four or five lines that supplied the Auckland CBD. As a result, the power in central Auckland was out for six weeks.

Mr M.P. MURRAY: Was it something similar that happened in California?

Mr Dawson: No; California was slightly different. California had a wholesale electricity market and the retailers did a deal with the regulator to cap retail prices in return for maintaining their monopoly position. However, the retailer was exposed to wholesale electricity market prices that went up and so went out of business quite quickly. The retailer had to be saved by the state; I think it was underwritten by the state. The retail prices were capped and the wholesale prices went up, and the retailer had no ability to recover the increased costs because it had done a deal with the regulator.

Mr M.P. MURRAY: Is there no chance of that happening in WA? That is, disregarding the above electricity example, is there any chance of supply lines and contracts having the same say, whether be it for gas, coal or electricity?

Mr Dawson: It is not dissimilar to the retail tariffs not going up for several years in this state and one entity incurring losses as a result of that—that is what happened to Verve.

Mr M.P. MURRAY: Okay.

Mr Dawson: In this case, Verve, and in the Californian case, both the exposed retailers were publicly listed companies that had no ability to —

Mr M.P. MURRAY: Yes; okay.

The CHAIRMAN: One of them was Edison, was it not?

Mr Dawson: Yes; and P and G.

The CHAIRMAN: Yes.

Mr Dawson: There were huge losses. Essentially, the retailer tried to maintain a monopoly position by doing a deal and capping the prices, which was great for the consumer, but which essentially put the retailer out of business.

Mrs L.M. HARVEY: Going back to your comments on the management of the gas resource in New Zealand and when you are talking about no scarcity pricing signals: is that reflected in long-term gas contracts at a specific price or is that government regulation of the price of gas or —

Mr Dawson: No; it was the former. It was contract positions. That prompted New Zealand and it now has a gas market and a gas market company. When I was talking about the gas issue, I was talking about history. I have not worked in New Zealand energy since 2001. Since that time, New Zealand has started a gas market; it has a gas market operation and regular prices. It now has a price signal and is managing its resource much better. It is sending good signals to developers to find and develop gas fields, and they are looking for gas onshore as well.

The CHAIRMAN: I know that it is a long time since you were involved, but what have gas prices done in New Zealand since?

Mr Dawson: I do not know.

The CHAIRMAN: Okay.

Mr Dawson: I imagine prices would only have gone up.

The CHAIRMAN: Yes. If you look at the structure of our gas industry, it is not very open or, more importantly, it is congested with few producers; two pipelines, both regulated; a few major dominant purchasers; and restricted markets. If you look to the eastern states, there is a big market down south in a big market up north with a big pipeline between. It is not one in which there is a lot of dominance on all aspects of the chain. If your aim is to open the market up to competition, encourage more producers and increase the diversity of consumers, what kind of policies could you put in place—about the geography and supply of pipelines?

Mr Dawson: If you look at what is coming on stream as far as suppliers of gas, it looks as though quite a number of gas projects are coming to market in the next five or six years. One has suggested that the ownership of those is largely the same as for the other projects—it is just a different mix of owners. You are seeing some innovation occurring; there are some smaller producers, particularly in the Perth basin on the Parmelia pipeline. You also have some gas storage capability. So there is quite a lot of innovation. Although there are some dominant buyers of gas, I think there are 20 or 25 entities that have transport contracts on the Dampier to Bunbury pipeline. I think an increase in transparency can only help the development of the market. At the moment, it is pretty much only the big players who can start playing in the market—if they know the game. I think that increased transparency will provide the environment for greater participation by other entities. The question is whether those other entities will come and there is no guarantee. However, I think transparency is the starting point. Once you have some information to start assessing supply and demand, policymakers would find it easier to start establishing policies as well. I think that when there is a lack of information it is difficult to establish policies and it is difficult to manage risk. Everything becomes difficult if you do not have the information, and that is a basic need for supply and demand. I think is important to have transparency.

[11.10 am]

The CHAIRMAN: Just in summary, the first step to improve the diversification and structure of the market is in fact to get information successfully.

Mr Dawson: Yes, and that will allow people to establish the policies. Without that, you cannot establish good policies.

The CHAIRMAN: We hear from other sources that not too many people are interested in building coal-fired power stations around the country. I suppose it is because of the risk of uncertainty about carbon prices and whatnot. You are not involved in those choices of technologies. Do you get very many people coming to suggest to you about coal-fired power stations?

Mr Dawson: Yes, there is no lack of interest. There is concern; not knowing what is happening with carbon pricing. Western Australia is one of the few jurisdictions that have developed coal-fired power stations in the last five years. I am aware of another entity that was promoting the idea of a coal-fired power station and would be probably interested, depending on where the carbon price goes, and it is largely dependent on the northern extension of the Western Power transmission line as well. So there are people interested in coal, depending on where carbon prices would go. At the industry talks about the contracted price of natural gas, coal would probably be reasonably attractive, depending on the carbon price.

The CHAIRMAN: The coal here relative to the export market is quite cheap.

Mr Dawson: Again, I am not a coal expert. From what I can tell, there is minimal opportunity to export Western Australian coal because it has technical issues with transport. It has a tendency to set itself on fire if you do not store it appropriately.

Mr M.P. MURRAY: I might just chip in there. As a result of the commission report into that, that has been fixed up.

Mr Dawson: Has it?

Mr M.P. MURRAY: Yes, they run the exhaust flues of the ship through the hold.

Mr Dawson: I think Western Australia's coal is more inclined to do that than any other jurisdiction's.

Mr M.P. MURRAY: Yes, it is very volatile.

Mr Dawson: It is very volatile compared with other coal.

Mr M.P. MURRAY: Just leaving it on the shore is bad enough.

Mr Dawson: I think they have to pay particular attention to it even in a stockpile, so it is difficult coal to export.

Mr M.P. MURRAY: Can I just come back to market forces. I am talking about Verve's cap again and how the Californian experience was there, but as we move further towards—I think you are saying—a 60:40 ratio you would like to see before Verve comes back in, does that expose Western Australia to the same problems, by going that distance, about someone locking themselves into—we have seen some of the gas prices as well—a long-term contract when the costs of supply outweighs their wholesale because we are going into the 60:40 scenario you are talking about. I just see that we could possibly be in the same position.

Mr Dawson: I think there is no shortage of capacity in Western Australia.

Mr M.P. MURRAY: I am not trying to butt in across you, but if at the moment there are a lot of people sitting and watching the carbon market, we could get caught short if someone does not make a move.

Mr Dawson: We have seen no indication of people being unwilling to invest in a state, and we have had a lot of capacity come in, a lot of innovation, and we have had a lot of demand-side

management come in. I think one of the key issues for investment in the state for generation, whether it be by Verve or anyone else, is access to the grid. I see that as one of the key impediments for both the supply and demand within the state, and access to the grid is a key issue. We are seeing new projects that have access to the grid being implemented and supplying capacity. Anything that does not have access to the grid is sitting on the sidelines waiting to have access to the grid.

Mr W.J. JOHNSTON: Are you talking about the north country reinforcement?

Mr Dawson: I am talking about access to the Western Power grid, whether it be in the north or anywhere, is starting to become a big issue I think for the development of the electricity. We are seeing anyone with access to the grid, or an agreement to connect to the grid, is actually implementing that generation capacity. We are not seeing a heck of a lot of extra capacity made available now by Western Power. I think that is going to be an issue for investment and generation beyond two to three years out. We have seen all of the spare grid capacity taken up.

The CHAIRMAN: Is it an issue of the extensive nature of the grid or is it just the capacity of the grid?

Mr Dawson: It is one of two things. Again, I am not a grid expert. Firstly, we have a philosophy in this state of the Western Power grid functioning on an unconstrained basis. No other jurisdiction in the world, aside from Singapore, that I am aware of, functions in such a manner, which means that essentially for every 100 megawatts of capacity installed on the grid, or load, you need 100 megawatts of network capacity to go along with it. A lot of those generation types, like peakers and intermittent wind generation, do not operate at 100 per cent capacity, and it is reasonably inefficient to provide 100 per cent network capacity for those, and sharing capacity is how other jurisdictions manage that. That policy also tends to result in significant overinvestment in the grid.

The CHAIRMAN: So you are saying there is overinvestment in the grid because of the policy of having grid capacity match generating capacity?

Mr Dawson: Potentially—again, I am not a grid expert—if that policy was implemented and continued to be implemented, it would result in overinvestment.

The CHAIRMAN: Why would they do such a thing?

Mr Dawson: I am not aware of why the policy was established to start with. It has been a long-running policy. I think it is one, to be fair, that Western Power is concerned about as well. In their strategic energy initiative submission they raised it as an issue that needs to be resolved going forward. I think they recognise the fact that to maintain its policy would require a significant investment for the state.

The CHAIRMAN: Do you see much hope for geothermal; do you get very much input from people contemplating geothermal investment?

Mr Dawson: Hot rocks, yes. There are a couple of entities that are looking at it. In the renewable space, wind is by far and away the most cost-effective at the moment, but we are seeing significant changes in the cost structures of renewables. Solar panels are becoming more and more affordable. Hot-rock technology is being looked at. I think there are examples in the Perth area where hot rocks are starting to supply things like heat for swimming pools. Whether someone will get a hot-rocks generation station up—I have seen a plan for one in Western Australia—again, it would depend on costs and investors really. It has to stack up economically.

Mr W.J. JOHNSTON: On the issue of renewables, are there any baseload solar thermal projects that talk to you?

Mr Dawson: The only solar plant that I think has got the green light is the Verve 15-megawatt plant that was announced recently by the minister. I am not aware of any other solar baseload projects that are being contemplated. I think there were a few vying for some federal subsidies a while ago, but I think the state missed out to Queensland and New South Wales.

The CHAIRMAN: What about co-generation? If a company produces steam and sells it to its neighbour, are you involved in that?

Mr Dawson: Yes. They are market participants. Alinta and International Power both have facilities that provide steam across the fence to manufacturing, and participate in the market like any other generator.

The CHAIRMAN: Very good. I will give my closing statement. Thank you for your evidence before the committee today. 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 date of the covering letter. If the transcript is not returned within this period, it will be deemed to be correct. New evidence cannot be introduced via these corrections and the sense of your evidence cannot be altered. Should you wish to provide additional information, which you have agreed to do, or elaborate on any particular point, please include a supplementary submission for the committee's consideration. Thanks very much.

Mr Dawson: Thank you.

Hearing concluded at 11.21 am