

TRANSCRIPT

STANDING COMMITTEE ON THE ENVIRONMENT AND PLANNING

Inquiry into unconventional gas in Victoria

Melbourne — 5 August 2015

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**Necessary corrections to be notified to
executive officer of committee**

The CHAIR — I begin by thanking the Grattan Institute for its submission and the material contained therein. If I can ask you to make a short presentation, we will follow with some questions.

Mr WOOD — Sure. Thank you very much for the opportunity. Our submission was short, and we did refer to some more substantial reports that Grattan has done on the gas industry, one of which was published in 2013 which fundamentally was a review of the overall gas market in Australia, and the second was looking specifically at the impact of gas price increases on Australian businesses and homes.

The Grattan Institute comes at this issue as an independent policy think tank. We are fundamentally interested in policy. We have no commercial interests in the industry, nor in the outcomes of this inquiry. We have also not commented, and we would not claim to be qualified to comment, on some of the technical issues that are raised by the inquiry, particularly issues to do with the geological formations in relation to the gas resource in Victoria or not, and the same thing would apply to a number of the environmental concerns that are fundamentally concerned with environmental chemistry and so forth. I have forgotten all the chemistry I used to know, so forgive us not getting into that territory.

Fundamentally, I guess, when we have looked at this gas market in Australia, you see a market which has historically been highly stable but is now experiencing several major concurrent shocks. To be frank, I would describe the gas market in Australia as a little bit of a mess. When things are like this you end up with a whole lot of different pressures from stakeholders and vested interests on governments. It is characteristically a small market with a small number of physical points of supply in Australia, a small number of suppliers and a small number of aggregators and retailers.

Victoria has been a leader in market development generally, particularly for the gas industry, although we have been in our published work critical of some aspects of policy in Victoria. The most recent, I guess, would be what was euphemistically called ‘gas to the regions’ in terms of policy development. Of course the nature of Australia’s climate means that household consumption of gas varies widely, and in particular a significant proportion of the gas that is used for domestic purposes is used in the state of Victoria. So Victoria tends to be a bigger deal when markets are going through a dislocation.

In terms of the current and recent changes that are occurring that provide some of the context in which you are doing your inquiry, we have seen household gas prices increase by about 30 per cent in real terms over the last five years. They have not had as much publicity as electricity price increases, of course, but that is only because electricity prices were much higher. If it had not been for that, I would suggest that gas prices would have got more publicity.

Secondly, whilst the majority of that increase has been driven by network price increases due to poor regulatory outcomes, we have not yet seen the impact of higher wholesale prices, and those wholesale prices are yet to play out. Whether they will be two to three times, as some people have talked about and we certainly refer to in our reports, or whether or not some of the more recent downward pressure on regional gas prices will have an impact, who knows? But the peculiar thing about this is not that there are a range of forecasts; it is the divergence of the forecasts that make it even more difficult for people who are participating in this industry, because there are projections of gas prices which are much higher and much lower than we have seen in recent times. So that is a particularly interesting challenge and a very difficult one for an industry and a market.

Export price parity seems to be a real shock. It is certainly the subject of a lot of inquiry, and we also appeared before the ACCC inquiry into the gas market last week. They are looking at some of the issues in relation to what this all means and what is causing it. The one conclusion, of course, is that for the first time the east coast gas market has been opened up to the regional, global gas market. However that happens, those markets are now connected, and that will play out in ways that anyone who thinks they can forecast or give you a forecast of that would be kidding themselves and kidding you, I would suggest. But there are significant market forces which have never been experienced on the east coast of Australia before.

Secondly, we have also got the challenge of climate change. There was an expectation that we would see a significant movement towards gas, and we have not. There are again associated reasons for that.

Finally — and more directly connected to the piece of work that you are interested in in this inquiry — as we have seen, the expansion of one of the triggers for some of the things I have just been talking about is the expansion of unconventional gas in Queensland. The issues that have then flowed out in terms of the other

states of Australia have not been insignificant in respect of community concerns, and I would suggest that the industry itself has done a particularly poor job of managing those issues both with government and with communities, and they have as much helped to create part of the problem that I think governments are now grappling with.

When we look at this, our conclusion is that there are significant challenges to get gas to market. On the basis of most numbers, Australia is not about to run out of gas anytime soon, and the issue is how you get that gas to the market. There are significant issues obviously associated with the points I have already mentioned. A number of the issues that are relevant to what will happen next are federal government issues, and it is not yet clear how they will play out.

When you come to the Victorian situation — and we have summarised some of these points — it seems to us that, firstly, it is as yet unclear whether there are significant commercially viable unconventional gas resources in the state of Victoria. There has been relatively little exploration of those unconventional gases. At the beginning of my introduction I did point out that I have some history in the gas industry personally, and I vividly recall, when I moved to Victoria, being told by the then state government that we were about to run out of gas. The government was not factoring gas into the future of the state of Victoria. That just shows you that, with respect, I would suggest some people do not understand the way industry measures reserves and resources.

Secondly, Victoria is part of an interconnected east coast gas market, and therefore it is highly desirable that any decision that is made on unconventional gas development in Victoria be part of a national, consistent approach. We have had a number of inquiries. We have had an industry that is going in fits and starts and certainly going aggressively in Queensland, but it is being challenged for good and maybe not-so-good reasons in other parts of the country.

To our view there is an issue to do with this moratorium. Firstly, we made the point that we have been puzzled and have not yet seen a good reason why there would be a moratorium on conventional gas development in the state of Victoria. It just seems somewhat difficult to see why there would be a justification for that, and in the absence of that, why would you, the government, not lift that moratorium immediately?

Secondly, the moratorium that was created has not addressed the concerns of the people, the communities and the environmental advocates who were concerned about unconventional gas; nor has it addressed the issues of industry. The sooner it is resolved, the better in some ways, because what it is doing — certainly in the case of New South Wales and maybe to a lesser extent in Victoria — is creating an uncertainty which means you cannot get on with the next best alternative. If, for example, the government was satisfied that there was a regulatory regime under which unconventional gas could be developed onshore in Victoria, then it seems to us that that would be a good outcome.

An alternative outcome which would equally address the issues would be to ban unconventional gas in this state. Then industry would get on with the next best alternative. There would be consequences whichever way you go, but it is the very uncertainty, it seems to us, which is fundamentally the biggest issue that is being created by the current situation that we have in Victoria.

With those comments I will finish my opening comments, and we will respond to your questions.

The CHAIR — Thank you for your submission. I note in your *Getting Gas Right — Australia's Energy Challenge* you talk about there being no market failure. You do not necessarily support the idea of making some reservation or quota for domestic markets. Would you have a different view if those domestic markets were reserved in some way and that was a way of initiating supply?

Mr WOOD — I do not quite understand why that — —

The CHAIR — If you had a guaranteed market but a reserved market, you may well be able to give a surety of supply on one hand but also have a sure market as well.

Mr WOOD — When you look at the resource in Australia versus the demand, there is no shortage of gas. The question is: is the connecting of the two — —

The CHAIR — And the price.

Mr WOOD — And most of these industries is taking time. There is a price question. It comes down to price. If you accept the shortcut — let us get to that issue — then the debate is around price. One argument would be if you impose the sort of restriction I think you were suggesting or some of the others that have been proposed under the various forms of domestic gas reservation or whatever, effectively what you are doing is providing some form of price subsidy which acts fundamentally as an anticompetitive arrangement. It is basically protectionism.

The CHAIR — It is not as anticompetitive as banning it.

Mr WOOD — No, that is probably true.

The CHAIR — You understand what I am saying.

Mr WOOD — I certainly would be careful in terms of saying that it is a preferred policy, but the issue around banning it is to do with the technical concerns and whether the environmental issues outweigh the commercial or the economic issues. The question I think you are raising is more to do with banning it — that is what banning would be.

The issue around do we have enough gas and are we seeing an upwards price pressure on households is yet to come, but in the case of businesses there are a lot of small businesses and small manufacturers in Melbourne and regional Victoria that are seriously being affected by gas price increases. I have enormous sympathy for their situation, but I fail to see that providing a subsidy to domestic gas consumers is necessarily by any means in the interests of the Australian economy. Fundamentally it is just another form of protectionism, and our history suggests that most of the time protectionism does not work. All it does, eventually, as domestic gas reservation policies tend to do, is put up prices and reduce supply in the long term.

Look at Western Australia: that is exactly what happened. Look at Egypt today: that is exactly what has happened. Australia is now looking to export gas to Egypt partly because they imposed a domestic gas reservation policy. If you have got gas, I fail to see how it affects either volume or price.

The CHAIR — But if you had gas and the only way to get it out was to supply it to a guaranteed market at a guaranteed price and the alternative was not to supply it at all — —

Mr WOOD — Sorry, are you suggesting that the government could ban the export of gas?

The CHAIR — No, I am suggesting that if the alternative was to ban gas from conventional and unconventional sources onshore, that is where we are at the moment. The alternative next step beyond that is to allow supply of gas from onshore to a guaranteed reserved market.

Mr BLOWERS — But I am not clear what the issue is that we are driving at. There is an outcome, and if there is a problem here in terms of there being a genuine gas shortage, then I can understand what you are getting at. But at the moment we have sufficient reserves in Australia to deal with the demand that is available — —

The CHAIR — But you are talking about a price issue as well.

Mr BLOWERS — But the price issue if you were to go down a gas reservation route — one of the issues that we saw in Western Australia was by moving to a gas reservation route it effectively puts a barrier on supply, and what that barrier — —

The CHAIR — At the moment the barrier is absolute.

Mr BLOWERS — At the moment the barrier is absolute, but at the moment we are not facing a specific issue in terms of a gas shortage or a gas price problem. Even the price problem is being driven by international factors and not necessarily by what is happening domestically — —

The CHAIR — I get that.

Mr BLOWERS — It is not clear why gas reservation policy would provide any particular benefit to Victorians, or Australians more broadly.

The CHAIR — It might provide cheaper gas.

Mr BLOWERS — I do not think so.

Mr WOOD — I doubt it. The evidence would suggest otherwise. It may for a very short space of time, but ultimately it would end up being more expensive gas. That is the evidence.

Ms SHING — I am just going to leap in here. Noting your earlier comments about reservation in the context of the Chair's question about whether that would in fact help to smooth prices and ease upward pressure, the BIS Shrapnel report that was referred to by the previous witnesses before the committee this evening — and I am not sure whether you had the benefit of hearing about that — referred to a doubling or tripling, which is again the figure that you referred to at the outset. That was used in the context of a report that has concluded that reservation would in fact have a positive impact on downward pressure or easing of the market for the purposes of domestic gas pricing. Do you have a view or a response to that in the context of the Chair's question?

Mr BLOWERS — I do not think I have seen the report.

Ms SHING — Sorry, I appreciate that.

Mr BLOWERS — It may be the report that BIS Shrapnel did for the Australian Workers Union.

Ms SHING — Yes, that is correct.

Mr BLOWERS — That is correct. I cannot remember it off the top of my head. It is not a report that I have referenced previously when looking at this subject. I have got to be honest, when we look at gas prices and gas price rises we generally use the model undertaken by SKM-MMA. But my personal opinion is pretty much coming back to what I said. While I understand what the report said previously, I did have some issues with the actual formulation of some of those figures that came out of it, and I think what we said previously in terms of gas reservation is yes, we have seen short-term impacts on price, but in the long term gas reservation policy is effectively a barrier on supply, and that barrier on supply is one of the things that eventually forces up prices.

The CHAIR — I think you are missing my general point here, and I will put it to you very clearly. It might be that the quid pro quo for certain risks for Victorians is that they would accept gas from onshore sources, where it is not supplied currently, if they could see cheaper prices. Otherwise they may not.

Mr WOOD — I understand the point you are making. I think that would seem to me to be a somewhat devil's bargain.

The CHAIR — A political quid pro quo separate from the market.

Mr WOOD — Yes. Firstly, one of the difficulties we have in constraining that gas to Victoria, because it is a market which is now physically and financially connected — —

The CHAIR — But the state Parliament could quite easily reserve gas onshore in Victoria, which is a Victorian product — —

Mr WOOD — So are you suggesting that the gas would not be physically allowed to travel interstate — or financially?

The CHAIR — I am asking you the question.

Mr WOOD — I do not see how you could do that.

The CHAIR — I think you could volume wise.

Mr WOOD — I am not a legislator honestly, Mr Chairman, so I would not even attempt — —

The CHAIR — I am asking you the question.

Mr WOOD — I would think that would be (a) a very challenging thing to do in Australia's current national energy markets, and (b) it would seem to be a rather perverse deal to do to say, 'Look, if the serious issue is' —

I do not necessarily accept this — but ‘if the serious issue is we are so convinced about the environmental arguments of this gas that we want to leave it in the ground, but we are prepared to let it come out provide we can get cheaper prices’. That would seem to go against a lot of the fundamental ways in which this country has approached a lot of resources. It feels to me like a very backward step.

The CHAIR — I understand your point completely. I am challenging the question, that is all.

Ms SHING — Sorry, I did leap in earlier, but I am going to ask a substantive question, if I may. Thank you, gentlemen, for your submission and also for talking to that submission at the outset. I note that one of the objectives of the Grattan Institute is as:

... an independent think tank focused on Australian domestic public policy. We aim to improve policy outcomes by engaging with decision-makers and the community.

It is the last bit that I am interested in — that is, engaging with decision-makers and the community. To that end, I am sure you would be aware of the very polarising elements of this issue and the way in which they have informed public debate here and more broadly. I would be interested from a public policy perspective in any comparisons that you see might be relevant to large-scale public policy challenges that have been experienced, either domestically or overseas, around what might be a tsunami of community resistance to an issue, how that has impacted upon decision-making for a legislature or any sort of decision-making body, and what themes have emerged from a public policy perspective that might inform the committee’s understanding of how to deal with the issue in this context.

Mr WOOD — I think the particular issue of unconventional gas — and sometimes I even struggle with the term myself — as I am sure you are very much aware, is that there are a whole range of geological structures which are used to define conventional and unconventional gas and all that, so I am not going to bore you with all that pseudo-technical jargon. But I think the particular storm arose around developments of coal seam gas and the particular fracture stimulation technology that has been used for many, many years around the world but only very recently in specific circumstances, and in a couple of cases I suggest in highly questionable circumstances that probably should never have been done in the first place, particularly in New South Wales. There was a particular storm created around that, a congruence of that, with an emerging concern amongst a number of environmental groups that instead of gas being their friend, gas might be their enemy. So there was a view that gas would be part of the climate change solution and then a realisation that if we had a global glut of gas, as was being seen in the United States, suddenly gas would be eating their lunch rather than the other way around. Also you had, not surprisingly — and none of what I am saying is in any way pejorative — people who for good reasons and otherwise were being told that issues to do with their lifestyle in particular parts of Australia were fundamentally going to be threatened.

So you had an unusual alignment of concerns, much more so than, for example, we see today in the people who align themselves against wind farms or against other things in terms of development. A particular example of unconventional gas is in the United States where there was a recognition that there was a range of views, both from industry and the environmentally concerned groups, about what you should do about it, and one way to resolve that eventually became a coalition, and we referred to this in our first report, in which there was fundamental agreement to put together an independent body that would be populated by both sides of the debate to establish some commonly accepted standards.

It starts by accepting that there is a framework within which, in that particular case shale gas, can be developed. It does not start by saying that the risk of this is so high that it cannot be developed. Once you start with that premise, then you can get to a different situation, and I would suggest that that is one of the things we have singularly failed to do in Australia — to find a way of bringing together the people who have done that. One of the things we have done in terms of your comment about public policy is that we have certainly run a number of public forums around our reports and some of the debate, and we have encouraged people from both sides of the debate to come and have that debate openly and try to share that to better inform the community, whether that be in Brisbane, in regional Victoria, in Melbourne or in Sydney. I do not know whether we have had much of an impact on that, because unfortunately I think in many cases people have arrived at the issue having made up their minds — on both sides of the argument, I should say. I think that has been particularly helpful.

The issue now, and in some ways what concerns me, is that because of the way the industry failed to come to grips with this issue soon enough, and they were focused on developing in Queensland and suddenly in New

South Wales, there was hardly anybody, certainly from any of the major companies, who was looking to develop coal seam gas or fracture stimulation in Victoria or even in Tasmania, where there has also been similar concerns about fracking. The attention was not here.

As a result, the game got away from them, to be honest. I think it is now very difficult for governments to get a serious engagement in which you can have an informed discussion around the merits either way. That is particularly unfortunate. How you then try to go forward from that, it seems to me — the only solution that I can see — is seriously trying to get the environmentalists who have concerns about the industry, the unconventional industry specifically, and the industry to come together and actually have a serious and frank discussion about the issues, because at the moment they are not.

Ms SHING — Just in your experience, and as a supplementary question, are there any other areas of public policy where it may have seemed that all was lost in relation to finding that level of common ground — whether it is an environmental issue or a civil rights issue or some sort of issue impacting upon public policy — that in your experience, looking at a range of issues as you do, there has been in fact a capacity to come back from the edge of that precipice of complete difference to find a sense of common ground?

Mr WOOD — There has been in some cases. They tend to be more local in the chemical industry — for example, when local communities have been concerned about the establishment of the chemical industry. I can specifically recall an example in Queensland where there was a proposal to establish a very large caustic chlorine plant in Brisbane, and the issue there was that there was a particular airshed. Concerns were about the environmental concerns if there was to be a spill of caustic chlorine, which is particularly nasty — chlorine in particular — because of the nature of the demographics of Brisbane.

In the end the state government got together with a number of councils and it was determined with the absolute enthusiasm of the Gladstone council that the plant should be built in Gladstone. In that particular case the community was very glad to have the development. It was similar to the Chair's comment. There was a 'We'll take it if you won't' sort of debate. It was seen that that was acceptable. In particular Gladstone did not have that same airshed problem that Brisbane had because of the nature of the Brisbane Valley, and the issue was resolved with the full support of the local environmental groups that I recall in Gladstone.

I have to say it was not as poisonous a debate — to use the word poorly — as we have seen, I think, in relation to the way in which this issue has developed in a way that, I would argue, both those who are concerned environmentally and those who are concerned in the industry have not been as full and frank as they could be. That would be my view.

Ms SHING — Thank you very much.

Mr DALLA-RIVA — Thanks, gentlemen, for your submission. I am trying to get a feel for the initial presentation dated July 2015, where you talk about the removal of the moratorium et cetera, yet when I look at your *Getting Gas Right* report of June 2013, in fact there is very little discussion in relation to Victoria. As I go through it, it is talking about getting gas to New South Wales. It talks about resolving the impasse on coal seam gas — that is on page 30. I am trying not to be selective. You talk in terms of the east coast as being the whole of gas supply rather than particularly Victoria, and then further on you talk about the West Australian gas market and the gas reserves et cetera there being quite proven and probable, around 90 000 petajoules — or 64 per cent of the proven and probable gas reserves of Australia.

It then goes on — which is why I am drawing down to my statement — to 'Let the market operate'. Then you go on to say at 4.41 on page 38:

The Western Australian government should end the gas reservation policy and allow the market to balance supply and demand. Forcing producers to commit to the domestic market could repeat history.

Then you go on:

Too much supply would again push —

down prices —

... This might seem attractive, but artificially low prices are bad for the gas market.

I am trying to reconcile the 2013 submission, which was very detailed but spoke more about the reserves in Western Australia. It spoke more about, if anything — the only thing that I saw that perhaps related to Victoria — increasing the pipeline capacity, which is referenced on page 31. It seemed to me in the initial report in 2013 that there was not the desire for coal seam gas expansion in Victoria, and you can correct me if I am wrong. We now have a moratorium, and your latest submission, which is presented today, talks about the need for a lifting of the moratorium. I am struggling to reconcile which report is correct, because one cannot be correct if you are referencing the earlier one as being the foundation for a reason for us to lift the moratorium when there was no justification for it back in June 2013.

Mr WOOD — The 30 June 2013 report was fundamentally a report looking at the overall gas situation in Australia. Because there are two physically disconnected markets, you have to talk about them separately and describe what is going on and how the dynamics are playing out. In particular of course, for some of the reasons we have already discussed, the Western Australian example needed to be gone through in some detail because of the particular issues associated with domestic gas reservation policy and how it is played out, because that state has an aversion of domestic gas reservation policy in place.

On the east coast of Australia, as we did, the issue emerging in 2013 was a ‘We are going to run out of gas in New South Wales’ issue. The question then became ‘Is that real, is it likely to be real, and is it appropriate for governments to intervene in some way?’. Our conclusion was when we looked at: first, that was highly unlikely based upon the physical supply of gas; and second, it was highly likely that commercial solutions were more likely to be found under those circumstances than government intervention. No-one at that time was seriously as concerned about gas in Victoria as they were in New South Wales because a number of companies were at the very crux of trying to develop coal seam gas in New South Wales. This is why I find the industry’s approach questionable, because they were running the argument that if you do not let us develop this gas, we will run out in New South Wales. Whereas demonstrably New South Wales had not had, except for a trivial amount I would argue in some parts of the state, any of its own gas and yet had never run out of gas before, except in a couple of circumstances where it looked like they might have done when the Cooper Basin facility had some difficulty for short periods of time and the South Australian minister may not been as friendly towards his New South Wales counterpart as he otherwise might have been. That did not happen in the end, obviously.

That was the issue, and that was what we were fundamentally grappling with. The question that any moratorium on Victoria was yet starting to have an impact was less clear or less visible at the time. It certainly was not invisible, but it was not particularly as acute as the issues we were trying to grapple with, one of which was just to explain to the broader community, ‘What is all this about?’ in terms of the global gas industry.

The second report, however, then started to become much more specific about the impact on consumers, and that is when you start to see issues which are much more pertinent to Victoria, for example, not just on the supply side but on the demand side. The impact on Victorian households of a doubling of the wholesale price is far more significant in dollars per household per year than it is in the other states of Australia. In my case, my gas bill would go up by \$500. For my brother who lives in Brisbane, his gas bill would go up by \$10 for exactly the same increase in wholesale price. We were trying to explain that story, and it seemed to us that there are a number of issues associated with gas in Victoria. Given that a lot of the policy issues are still federal government policy issues, the two that were focused on in relation to Victoria — and this is in common with New South Wales, although I do not think the New South Wales one has actually been called a moratorium — were, firstly, the constraints on and the uncertainties created by allowing development to proceed or not in both states, and secondly, in the case of Victoria, we were critical of the point I made before about the gas to the regions, which seemed to us to have been a particularly poor use of funding. That is not relevant to the issues that your inquiry is addressing, but it certainly was the other issue from a public policy position that had emerged from looking at the Victorian-specific issues in relation to gas.

I would argue that there is not an inconsistency with the reports. The story had developed, as did both the physical and the policy questions related to the gas industry on the east coast of Australia and the Victorian-specific issues.

Mr BLOWERS — Just in terms of clarification, in our submission we are not specifically calling for a lifting of the moratorium. I think what we are asking for is that somewhere out of this there is a recommendation to either lift the moratoria or make a decision to ban the unconventional gas industry in Victoria. What we are saying is that the uncertainty created by the moratoria is hurting both sides of the

argument and that a decision is probably pertinent. What we have called for is a lifting of the moratoria on conventional gas exploration in Victoria, and that is something that is slightly different.

Mr WOOD — In our discussions with the previous government — and this was not public in the report, and I would struggle to even remember with whom the conversations took place — on just trying to understand why there would even be a moratorium on conventional gas, we could never get any answer as to why there would even be such a thing. It seemed to us that it was political in the politically logical as opposed to the politically illogical context. There was a view that if we are going to have a moratorium, we should just have a moratorium on all gas. You will have seen, I am sure, in the other responses to your inquiry the arguments where you end up with a very unusual situation in which the same geological structure can be developed if you develop offshore versus onshore.

Mr LEANE — Just to follow up on what David just said, when you say that you recommend that there be a definitive outcome, what we have found is that the moratorium has not resolved the concerns of developers, landowners and environments — in fairness it has not in any hearings we have had. That really leaves us, if you are looking at recommending us to take definitive action, with only one course of action, which is to ban it.

Mr WOOD — I do not understand why you would come to that conclusion.

Mr LEANE — Because these concerns are real. We have conflicting evidence — evidence of the environmental concerns and the landowner concerns, and the polarising evidence you get from the developers. We have not had any definitive evidence that will allow us to say as a committee that this end of the argument is right or any definitive evidence to say this end of the argument is right. That is why I say that getting to a point where we take a definitive decision gives us only one way to go.

Mr WOOD — If I were your adviser, I could find you different ways out of that particular problem. For me I could quite rationally see an argument based upon work that has been done, including that which has been referred to already this evening by the chief scientist of New South Wales, and there has been work done in other places, some of which has been done, I accept, by the industry. As in any other industry there are risks to be managed, and they can be managed with an appropriate regulatory structure. It does not mean that there will not be problems, as there have been with just about every industry you can think of, but to suggest that even if there were a problem, as there has been from time to time with coal seam gas development or shale gas development, that those problems are of such a nature that they cannot be remedied in a way that provides minimal environmental damage, I would be staggered from what I have seen if that regulatory regime could not be put in place.

Our only conclusion was that if you decided that that was unacceptable, it would be better to move to that solution quickly. It would be somewhat bizarre, can I suggest, if you banned coal seam gas in Victoria, because you would almost have to think about banning the importation of coal seam gas into the state of Victoria, because again you are faced with exactly the opposite of what we were talking about before — about gas being exported from Victoria. If you do not want coal seam gas, would you also not accept coal seam gas from New South Wales and South Australia? You would be faced with what would seem to be a hypocritical — it would certainly be viewed as hypocritical — outcome in the same way that you do not like nuclear energy but you are happy to buy it from France. It would be a similar sort of argument.

I think you would run into those sorts of things. It may very well be that you decide that the issue are such that you end up in that place and therefore you have to put in place a set of regulatory structures to do that.

The CHAIR — You may just free ride. You might want the risks over there and accept the gas over here.

Mr WOOD — Yes. There are so many things in the energy industry, and it is not the only industry, where you see unintended consequences of policy. Because of the interconnectedness of the market, both physically and financially, you would have to think very carefully how to create a circumstance in which you did not actually get almost the opposite of what you were trying to do. If that is what you decided to do, I am not suggesting it could not be done, but I think it is a lot more complicated than just saying, 'We will ban coal seam gas and unconventional gas in Victoria'. I would reject the argument that, 'On the basis of we have seen conflicting evidence on this, and therefore the only answer is to ban it'.

I would suggest that many industries in this country have seen the same thing, and there are perfectly sound regulatory structures under which they are managed, there are environmental issues which get managed, and most of the consequences of those. There are certain circumstances where you could argue that the environmental consequences — and not just environmental; I mean aeroplanes falling out of the sky — —

For example, people would argue that a nuclear power station catastrophic failure was pretty serious. That may be a reason why we currently have a ban on nuclear energy in this country. It does not seem to me — and I hesitate because I am not putting this forward as a technical argument; I am not an expert — but it seems to me when you look at public policy it is hard to conclude that the evidence is such that would result in you concluding, ‘The only thing we can do is ban it’.

Mr LEANE — I would argue that when you talk about the interconnectivity of whether we are being hypocritical about coal seam gas coming in the pipeline to Victoria. It may be coming from a region of Australia that is not prime agricultural land that Victoria is, and the reverse economic argument about that land produces more economic value to the state and it may be in another state where you could be in the middle of the desert — —

Mr WOOD — That is a perfectly sensible argument, and I think that there have been cases where I would suggest — and this would not be unique to coal seam gas — where resource development in some parts of the country is inappropriate. For example, the idea that you would mine for these resources under Parliament House would seem to be somewhat challenging. I could certainly see a situation where on that basis you would have constraints around certain areas that would be off limits, and I cannot see how the industry could ever argue the alternative. When you look at definitions of prime agricultural land, there may be cases in which the argument is, ‘Look, there are some situations where it just is not going to be appropriate’. I think there were certainly cases in New South Wales where that was the case. I would not attempt to give you a map this evening, but I can see how that would make sense.

Mr YOUNG — Thanks, guys. What I am interested in is provoking a response from you around the regulatory framework, and you have touched on it a couple of times already. You have suggested that the moratorium should be lifted in conjunction with an appropriate regulatory framework, but we have just heard from a previous submission that there is no framework that would be appropriate in mitigating, or along the lines of mitigating, a negative impact to environmental factors. What would your comments be on that? What would your thoughts be on that? Further than that, do you think the existing regulatory framework was appropriate for the existing gas attraction that we already had in operation?

Mr WOOD — Conventional gas?

Mr YOUNG — Yes, conventional gas.

Mr WOOD — On the last bit demonstrably so. I am not aware of any incident that would suggest that the regulatory framework was fundamentally flawed. There may very well have been incidents in which, as a consequence of what people have learnt from an incident, the regulatory structure has improved. I would almost be surprised if it has not been improved over many years because we have had a conventional gas industry in Victoria for several decades now. The same thing applies to onshore gas development as well.

It would seem to me that the nature of the potential risks that would result from the sort of particular things that might happen, incidents that might happen, are such that, first, you could never — —

Whenever I in my own experience have looked major catastrophic events, often they are multifactorial — that is, three or four things go at once. Some of you would be aware of the Longford thing back in 1998 in Victoria. I have a chart on my office desk that shows exactly the gas flows at that time. That was a result of multiple things. Several things usually have to go wrong. I am not suggesting that things cannot go wrong, but to suggest that this would be such a catastrophic failure that it would result in a situation where you would say, ‘We should never have allowed this to happen’, I still find it hard to see the circumstances in which that would be a result.

For example, one might be a permanent widespread contamination of an aquifer which was used for agriculture. That sounds pretty horrendous. That is probably about the most extreme I could think of. If that was seriously likely to happen, you would say, ‘That’s pretty serious’. Is it likely? I think it is extraordinarily unlikely. The evidence is that these technologies have been used for many years in various places and there is no evidence of

that happening. We as a community can track what is going on. It does not suggest that you will not have rogue operators and it does not suggest that things will not happen. I would suggest that you can describe a catastrophic event for many industries, but to suggest it is likely and that therefore it is of such a probability, a fat tail in the way that probability is described is, I think, remote.

Mr BLOWERS — I go back to the O’Kane report which effectively came out and said that the risks associated with the coal seam gas industry are not that different to the risks associated with lots of other extraction and mining industries and that those risks can be managed through a proper regulatory framework if that regulatory framework exists. I also make the last point, which is that you cannot mitigate every single risk you are going to come across. That is true for a whole different range of industries as well.

Ms DUNN — I just want to go to gas generally. A previous submitter suggested that there is no need for additional gas supply and cited some reasoning behind that view. You have said we will not run out of gas anytime soon. Does that suggest that in fact there is enough conventional gas to supply our needs?

Mr WOOD — The honest answer is that nobody knows because it comes back to the question of price. Most likely the world will never run out of fossil fuels of any sort because it will be economic issues; it will not be physical. The question, ‘Have we got gas?’ is in some ways the wrong question. With respect I would suggest that the question is, ‘At what price?’. When you think about deciding to permanently put aside a potential asset, there is a price associated with that. That would mean that there would be a consequence in terms of gas. The other part of the argument which, I think, will become a far more interesting one in the coming decades is, ‘Will there be a gas industry in this country?’. I would suggest there is a scenario which is more plausible than a catastrophic failure of an aquifer in which gas becomes for both commercial and environmental reasons no longer a significant fuel in this country. Our last report basically said that even today for the majority of people in Australian households it is cheaper to use electricity. Many people would say, ‘I would rather have my gas central heater, thank you much’ than stick in one of these reverse-cycle air conditioners — it feels better. There are a whole lot of arguments around why people prefer gas, but on the economics today for most people — —

Most people do not know this, by the way. Most people we spoke to when we did our work thought that gas was cheaper because it used to be. It is not anymore. And it is going to get more expensive.

Secondly, for many industries — presumably the inquiry is as much concerned about manufacturing and industries as it is about households — it is a much bigger challenge because the choices are much more difficult. We spoke to a number of manufacturers in regional Victoria who had not been informed by their supplier that they were facing some price increases and for whom a gas price increase of 50, 80 and 90 per cent over three years, when they had had a stable price for several decades, was an extraordinarily painful event. Not surprisingly, it has resulted in the sort of extremely aggressive approaches that industry has taken with not only state governments but with federal governments about domestic gas reservation, because this is what driving it. It is about a significant, sharp, dramatic uplift in price. In many cases these are industries — the ones we used in our case — where they had just recently spent a lot of money upgrading their facilities.

I think the issue there is more about the economics and is it likely that at least in the short term we might see an economic negative impact if we do not develop this gas? In the long term it is quite likely there is a scenario in which the gas stays in the ground for the reasons I mentioned.

Ms BATH — With respect to our Victorian sites, when we are looking at putting wells into the countryside, that countryside is farmed quite intensively and our produce from that farming arrangement we export overseas, and it has a very good reputation for being clean and pure product, into the Asian markets for export, for example. I guess I would like your opinion, and if we talk about policy, about the economic consequences of whether it be a real or perceived threat that that would produce through mining exploration. And I would just like a commentary around the danger or how to minimise the danger of our tarnishing our image.

Mr WOOD — This may sound like a somewhat facetious response, but one is to say the electricity we produce in this state is amongst the highest greenhouse intensive electricity in the world and that electricity is used to produce our agricultural exports and we do not seem to have a push back from other parts of the world who do not want to buy our produce which has been produced partly as a result of highly carbon intensive electricity.

The linkage of activity between two products would require some degree of clear connection. In the example I just used, there is no connection except for the fact that they both happen in Victoria. Now that would mean that the question is: is there a situation in which the way in which we extract unconventional gas is likely to contaminate the food? And I have not seen anything that would suggest that that is likely. My understanding is that firstly the materials that are used, even in the situations where fracture stimulation is applied, are not of that nature anyway. If you were spraying these on crops, it might be a different situation, but the consequences in which those would somehow or other enter the food chain seem to be fairly remote, and I would certainly react with concern if I thought that was likely to happen. But I would think it is such a low likelihood — I am not saying that you would ignore it, but I have never heard that sort of connection being made previously.

Ms BATH — I guess from my point of view we have heard a number of times that one of the biggest concerns that people would have coming and presenting to us is the risk of damage to aquifers. I am aware that the technology is fantastic with respect to drilling et cetera, but there is still that risk to the land and the quality of the water, so I am just throwing it out there as devil's advocate and in terms of policy around keeping our reputation intact.

Mr DALLA-RIVA — It is reputational.

Ms BATH — That is it. It is reputational.

Mr DALLA-RIVA — Reputation is enormous.

Mr WOOD — I think it is an absolutely reasonable question, because it is one, particularly with the markets into which Australia may be selling its food into the future, where that very marketing position may very well become a critical differentiator for us, as it has already for New Zealand, as we know, in the dairy industry. So to be able to sell products that have that aspect to them, that would be important. You then come back to the technology and the science, it seems to me, and it certainly would not be for us to presume that we know enough about the potential for an aquifer to not just be contaminated but to be contaminated in a way that those materials would enter the food chain.

My understanding is that the way in which you would regulate would ensure that the injection, the fracture stimulation, firstly, is done in a way that you effectively make that highly unlikely. Secondly, the very agriculture industry on which we are dependent in this country and which you have just been describing uses many fertilisers and chemicals which could just as easily enter the food chain, and we find ways to manage that in a way which seems to be fine. I do not see why this would be any different, to be honest.

Mr RAMSAY — It will be a quick one, Chair, because I appreciate that we have been here for some time. I was interested in getting a response, given that basically you are a public policy organisation. I come from western Victoria. It probably has some of the richest coal veins in the state, and it probably has one of the most sensitive communities, running from Geelong to Warrnambool, in relation to fracking. Most councils have taken a very strong position of no fracking, and quite frankly the communities would prefer a nuclear power plant in their midst rather than a coal seam gas exploration drilling rig. That is what government is faced with in relation to political sensitivity.

The CHAIR — We will let you advocate that, Simon. We are not.

Mr RAMSAY — The VFF has called for a five-year moratorium and a right of veto. As we have heard today, Environment Victoria have made some strange connection between use of gas, greenhouse gas emissions and climate change. You can sort of see where that argument boils away to. Is there any point in furthering a moratorium, given the science and the information we know, as against what purely the community sentiment is in relation to the fear of contamination of waterways, protection of food, branding of agriculture et cetera?

Realistically, forget the science and forget the good public policy. At the end of the day we have a community that is very nervous and sensitive about coal seam gas exploration in Victoria, and we have local councils all getting together talking about 'no fracking' and 'no-go zones'. We have an agricultural industry that is equally nervous about contamination of waterways and protection of food and branding overseas. We have developers seeing some economic wealth opportunity, and local business because agriculture uses a lot of gas too in its processing, such as milk companies et cetera. So where do you foresee, maybe, there would be some public support for a balance, if any?

Mr WOOD — It is difficult for one of the reasons you have outlined and some of the points I made before. We have spent some time talking to local communities. We have had representatives of those communities come and speak at our public forums, and the angst is palpable. In fact it is even so palpable it is difficult sometimes to get to the core of why people feel like this. I know even when talking to some of the media in the part of Victoria you are speaking about, they would say it is almost impossible to place what they would argue is a reasonable, balanced view into their local newspaper because there is such a negative view in the community against the technology.

A part of it of course, I would suggest — but this does not help in answering your question — is because the initial information into those communities was so one way. The arguments in favour of gas development were never put. With industry in many cases when we even tried to get the industry to engage, to be frank they just did not see the point in many cases because they were not even sure there was enough gas to be bothered with in some parts of the state. As I said before, no-one really knows. No-one has seriously done any three-dimensional seismic look at the activity in this state in looking for unconventional gas.

To come back to your point, then, it may very well be. The moratorium I agree with. I think the argument that we should discontinue the moratorium seems to be challenging. To what end? What you might want to do is say, 'Well, there are certain specific things happening with time lines that we want to get some information on'. So we will say, 'Okay, we are going to seek further specific information'. I am not sure what that might be, but you could do that, which is to establish some clear criteria that would definitively say either yes or no. It may require industry to do certain things, for example, but just extending the moratorium would seem to be leading just to more of what we have already had, and I am not sure that helps anybody.

Again, I would strongly argue that you should lift the moratorium on conventional gas. I know in some cases the community does not necessarily even see that difference, because they have such a negative perception created by, I would suggest, all sorts of pieces of information. I was going to use the analogy of the wind industry, but I do not think it is even as simple as that. I am sure you have seen it and I have certainly seen situations in which in the local community there is a degree of jealousy because someone is getting money for the wind farm and they are not.

Mr RAMSAY — I could tell you about that all night, but the Chair would not let me!

The CHAIR — The Chair will stop you; that is right!

Mr WOOD — I think it is even worse than that, in a sense. I think there has been a very one-sided — —

I am not suggesting it is black and white, by the way. I hope we are not creating the suggestion that this industry should be allowed untrammelled development, but I do suggest that it has been a very one-sided discussion in many of those communities. In some cases it almost feels like it is too late for the industry to seriously go out there and try. We have had people talk to us and say, 'Our community is 98 per cent against it'. 'Well, why?'. 'Our community is 98 per cent against it'. 'To get the bottom of it, is there a reason? What are you concerned about?'. They do not even know what they are concerned about in some cases, I would suggest. I completely understand the sentiment you are raising, and I would struggle to give you the ammunition to suggest how you might overcome it because I think it has become, unfortunately, in some parts of the state particularly a very difficult public policy position.

The CHAIR — Tony, thank you for your evidence, and David too. Our secretariat may be in contact with you to follow up some points. There will be a transcript coming in the next few days for typographical and other corrections. Thank you. I declare the hearing closed.

Committee adjourned.