

PETROLEUM AND GEOTHERMAL ENERGY SAFETY LEVIES AMENDMENT BILL 2012
PETROLEUM AND GEOTHERMAL ENERGY SAFETY LEVIES AMENDMENT BILL (NO. 2) 2012

Cognate Debate

Leave granted for the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012, and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012 to be considered cognately, and for the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 to be the principal bill.

Second Reading — Cognate Debate

Resumed from 23 May.

MR W.J. JOHNSTON (Cannington) [12.31 pm]: I rise to put on record the Labor Party's position on these two bills. Although the Labor Party supports the passage of this legislation, we believe a single regulatory environment is preferred. Given that the state government has already decided to have a separate regulatory environment in Western Australia—last year it introduced legislation to provide for that framework—we are not going to oppose this subsequent legislation that continues that process of moving regulation of the industry of oil and gas and geothermal energy in Western Australia from what was originally the National Offshore Petroleum Safety Authority and the National Offshore Petroleum Safety and Environmental Management Authority, to the Department of Mines and Petroleum. This bill extends the current regime not for the regulation but for the taxation power to take account of the coastal waters—from the beach to the end of state waters. As I understand from the briefing given to us by the government, the regulations apply to that part of coastal waters and there is currently no mechanism for levying the costs because this is a jurisdiction where the cost of the regulation is put onto the industry. I am not saying that the industry likes that, but it accepts the process.

When the previous legislation came through this place I made some comments, but I will not go back over all of them. I make reference to the Varanus Island report that has come down since I made those remarks. The government has chosen not to implement its election commitment to hold a royal commission into the Varanus Island issues. Clearly a royal commission would cost a lot of money, and given the collapse of the prosecution actions against Apache Energy in respect of the Varanus Island matters, it is highly unlikely that a royal commission would make recommendations leading to any prosecutorial action against Apache or any other person involved in that matter. It is probably worthwhile at some point to have a review of the whole safety regulation system for oil and gas. Before I start getting all those phone calls from oil and gas companies asking me what I am talking about, I am just saying that at some point we should have a review. It is not urgent, and I understand the strong support from industry for the safety-case approach to regulating safety in the oil and gas industry, and by inference into the geothermal energy sector. I know that some of my colleagues might make some remarks about geothermal energy processes later on. I do not think a royal commission is needed, but at some point we should look at what we are doing.

The Labor Party's view has always been that there should be a single regulator; that is the industry's position as well. The government wanted to have a separate regulatory body in Western Australia, and that is what we now have. Many of the oil and gas companies operating in commonwealth waters off Western Australia will now need to deal with two separate regulatory regimes. If they have a pipeline that runs from an offshore facility to an onshore facility, then at the coastal waters mark they stop dealing with NOPSEMA and start dealing with the state government regulatory regime. In that example they have to produce a safety case for their facility and present it to NOPSEMA and to the department. It is clear that the two organisations are going to get follow through on the safety case in the same way because it uses the same documentation, but industry has to deal with two separate regulators. I understand the philosophical position of the Liberal government to assert the rights of the state to regulate, even though it is adopting the same regulatory framework, but I know that industry does not support that position, and I am not sure it is the best way forward. However, we are not voting against this regime, because we accept that it will be introduced.

We need to get one technical issue on record. I understand from the briefings we received that dive boat operators are currently not levied by NOPSEMA, but under this legislation they will be levied by the department. Perhaps the minister could make some remark on that at the end of the debate. It would be interesting to know how many operators will be covered by this new levy; the total amount of money that might be raised by the levy in respect of those operators; and the average charge for one of those operators. I understand that there are a limited number of these dive operators in the industry around Australia, and the only operators that will be levied are those who effectively say that they will be operating in state waters. Of that total set of dive operators, a very small number operate in Western Australian state waters. A dive operator could be based in Victoria and serving the Bass Strait fields where he is not levied, but if he gets a contract to work in Western Australia he will be levied, and at some point he will have to tell the department when he is going to work in Western Australian waters. It is worth getting a comment from the minister about the framework around those charges. I would also

like to find out whether there is a reason that state inshore waters were not covered in the original legislation. I understand the industry does not want the levy—I am not suggesting that it wants the levy—but can the minister give me an indication of the acceptance of the rates that will be charged to these operators working in inshore waters? It is probably worthwhile getting the minister to indicate who he has consulted and what their position is on these matters. Our understanding is that apart from the operators who are currently not levied but who will be, everyone is relatively comfortable with the arrangement.

Mr W.R. Marmion interjected.

Mr W.J. JOHNSTON: We will see what happens there.

We were pleased to be given a copy of the letter that was sent to operators in potential companies that are operating, showing where they might get the additional levies. I know that the minister is keen to get the framework up by 1 July and given that, as I understand from the briefing, the minister needs to not only get the legislation through, but also the regulations completed; I am sure it will be a rush to get them done on time. We will see how he goes; we will not try to delay him or anything like that, and next week the legislation could get through the other place. Before I move on to general comments, there is one other thing about the briefing we received. What is the inspection regime and how many facilities will be covered under each of the categories that lead to the different levying levels—I think it is A to F? How many facilities might fall into each category? I think that is the other question about the levels that I needed to ask the minister.

I want to make a few comments about the offshore oil and gas industry. Obviously this is a critical industry to Western Australia and Australia. We are very lucky to have such an incredible amount of resources off our coast. I was very fortunate recently to go to the Apache Energy Devil Creek project to represent the Leader of the Opposition. Apache was very generous and flew us in a helicopter over some of its offshore facilities and also over the Gorgon facilities that are under construction. It is an amazing sight. I remember going up there with the Australian Petroleum Production and Exploration Association when I was state secretary of the Labor Party and standing on the beach with the Chevron people when there was just a vast expanse of scrub. Now it is a major industrial site with the loading facility under construction out into the sea, the pier and the large trains under construction; it is quite a remarkable sight. There are literally thousands of people now generating an income and being part of that massive construction workforce. Of course, when the construction workforce finishes, the operational workforce is quite small. One of the things that happens with all of these offshore oil and gas facilities is the incredible level of automation that is built into them. It is a challenge to cope with that huge peak workforce. We now have the Wheatstone project committed to and there is another opportunity for workers in Western Australia to benefit from that massive project as well. Again, when Wheatstone is finished, the operational workforce there will be quite small. We hear about other projects that are named after every Greek god; they seem to follow these different paths of naming fields. Someone is sitting somewhere or other —

Mr W.R. Marmion: It is hard to pronounce some of them, isn't it?

Mr W.J. JOHNSTON: Yes, some of them. Five fields next to each other will be named after a Greek god, somewhere else there will be a couple of Roman gods and a couple of names will be related to English geography and all these other things.

Mr F.M. Logan: Motorbikes.

Mr W.J. JOHNSTON: And motorbikes. Someone is having a bit of fun naming all of these fields.

Mr F.M. Logan: It's the geologists!

Mr W.J. JOHNSTON: The member for Cockburn says that it is the geologists!

The point I am getting to is that there is a limit to how many new projects will work. At the moment, the export gas price to Japan is very favourable because of a whole range of issues. If we go back to the first term of the Gallop Labor government, there was a great prospect that we would be selling massive gas supplies to China. That has never eventuated because although we have done a deal with the Guangdong liquefied natural gas contract, China has changed its profile and its energy needs. Also, because of the shale gas revolution, the technology for which is being applied in China, and the pipeline gas from Central Asia, it is quite likely that the Chinese will not have any major demand for Western Australian gas. I remember too when Scarborough and Wheatstone were talked about when we were in government and it was envisaged that gas from those projects might be exported to the United States. I read the other day that the price of gas on the Henry Hub is down to \$2 a million metric British thermal units, which is a bit over \$2 a gigajoule, compared with what is reported in the media of about \$12 a gigajoule for the import price of gas into Japan. It will be very interesting to see how the traded gas sector works in the next 10 or 15 years. It is quite likely, and there is speculation in the media already, that projects that cannot get to financial closure in the next four or five years might miss a window. Of course, as

I say, if we look back 10 years, no-one predicted the coal seam gas revolution in Queensland or the shale gas revolution in the United States—all these changes to supply have made things unrecognisable. Therefore, trying to predict what will happen five years in the future is very difficult.

Of course, all those projects need to account for the demands in domestic energy. I have had conversations with a number of major oil and gas organisations recently and I want to address the suggestion that the gas reservation policy for Western Australian domestic use is about providing a subsidy to domestic consumers. I do not see it that way. I see the reservation policy as creating a domestic market that is unlinked to the export market in the same way as the United States, through the operation of government regulation there, has created a separate market. That has driven down the Henry hub price so far. If we look backwards, a Henry hub price of \$10 looked very attractive for LNG imports and Scarborough was being pitched on the basis of exporting the gas to the United States. Suddenly, the shale gas revolution came along, applying technology to the hard-to-get resource of gas, and we have even the Henry hub forward-sale price at only \$5—it has changed. The reason that the gas price is so low is that the regulation says that gas cannot be exported from the United States. It may be that American energy policy will change, and there is a lot of discussion about what will happen with American energy policy, but the tradition of course has been that US energy policy is based on the idea of domestic energy independence. Therefore, that plan to have domestic energy independence has driven down the gas price in the United States. That is what our domestic reservation policy here in Western Australia is trying to do. The former Premier, Hon Alan Carpenter, once talked to me about why he came up with the idea of the reservation policy. He said he was talking to the head of a large Korean company and the Korean CEO asked why Western Australian gas was being sold to Korea. He said that if it was the reverse, Korea would not be doing it. That struck Hon Alan Carpenter, and when he returned he asked the department to come up with this policy, and this is the framework. It is of course true that every LNG project in Western Australia has always had a domestic gas obligation, but each of them has been negotiated separately. With the original North West Shelf project there was a specific state agreement that provided a particular set of obligations, and those obligations are just about to expire.

There was a specific negotiation for the Pluto LNG project, and it was the same with Gorgon with a specific set of obligations. It is interesting that with Gorgon, the nature of the project changed after the state agreement was entered into and it became a very much larger project, so the percentage of domestic gas is much less than was originally understood because the project scale changed dramatically. It went from one train to three trains; effectively eight million tonnes to 25 million tonnes. It was a very different project when it got final investment approval compared with when it was agreed. I am the first one to say that these projects have to make financial sense, otherwise they will not happen. But in making financial sense, the operators need to take account of domestic demands. That is what the domestic gas policy is about. It is saying that we are happy for someone to make money selling our gas to offshore markets. When I say “our gas”, I mean Australian gas, because most of these projects are in commonwealth waters. But in doing the financial sums we ask them to build in the fact that we need them to supply domestic demands, and we reckon that 15 per cent is about right. We do not want gas for five years; we want gas for 30 years. There is a strong argument that says: if I am selling gas to Alcoa or Nickel West and they are selling their product in the world market, why should I sell my gas at lower than world price if they are selling their alumina or nickel off-take on a world market? The problem is that there is not a world market for gas; there are separate markets for gas because of the problems with transportation and the need to build either LNG facilities or pipelines. Gas is not tradeable in the same way as these other products are traded or as the energy alternatives such as coal and liquid petroleum are traded. That means there are these separate unlinked gas markets. All that the Labor Party is saying about the domestic gas policy is that we want a domestic market that will have a domestic clearing price. That domestic clearing price is almost certainly going to be different from the LNG export price to Japan, which is what we are trying to achieve.

Mr F.M. Logan: And as it should be, because there are two different processes.

Mr W.J. JOHNSTON: The problem with that, member, is that we get into this argument about what is the net back price. I am saying that I do not think we should be linked to the net back price. I am sure that the Premier agrees with me 100 per cent. In fact, in his commentary at Rice University in Houston, he said that the price should be linked to a lifting price. I am going beyond the lifting price and giving them even more flexibility. This is a bipartisan thing. This is not an argument about politics; it is an argument about the needs of Western Australians and the oil and gas companies. No project is going to go ahead if it does not make financial sense. Of course, the gas is in commonwealth waters and the commonwealth government does not necessarily agree with us. Former Liberal government minister Hon Ian Macfarlane, a resources minister under the former Howard government, said some very unkind things about us, and that is equally true of Hon Martin Ferguson.

Mr F.M. Logan interjected.

Mr W.J. JOHNSTON: He does not say quite the same thing, but he is not necessarily convinced of all the arguments. I welcome the commonwealth government's energy white paper and it will be interesting to see what comes out of that. I have read with interest some of the comments of people putting in submissions to the energy white paper and particularly draw attention to the media reports about Rio Tinto and its aluminium asset in Queensland and its need for certainty about the gas price going forward. It will be interesting to see what comes of that. I do not know what is going to happen. I am not directly involved in that process, but I reckon there may well be a move towards some sort of energy policy that in many ways looks familiar to Western Australia with our gas reservation policy. These are significant issues because we are the most gas intense state in Australia. We need to ensure that gas prices are moderate. What do I mean by "moderate"? People ask me whether I am arguing about price or supply. I say that if we can generate the supply, the price will sort itself out. The reason the price goes up is that the supply is not there. People say there is one set of demand at \$3 a gigajoule and a separate demand at \$12 a gigajoule. That is true. I do not think that the price will settle at \$3 or \$4 a gigajoule; I think it will settle somewhere in the middle. However, if it does not settle somewhere in the middle and it gets above that into the \$6 to \$8 a gigajoule range going forward, then we have a problem, because our economy is based on the idea that we can get gas that is not outrageously expensive compared with gas in the United States. It is an appropriate and reasonable thing to do as a state to say that we want our energy supply at a reasonable level, and it is appropriate and reasonable to have some intervention in the market. Let us face it, the oil majors based in the United States cannot export any of their domestic gas at all because it is against American law to do that. We are the only LNG exporting country that does not have direct government participation in projects. If a 15 per cent reservation policy is bad, imagine having a 25 per cent giveaway off the top for a production sharing agreement, which is what happens in many other parts of the world for LNG projects. None of these things is unreasonable. It is tricky, and it is not going to be done easily, and there are many balls in the air at the same time. The media is reporting that many of these projects are marginal on their financial plan. I read a comment recently about the Woodside-Browse LNG project that a project that works at \$30 billion is unsustainable at \$50 billion in terms of the capital cost. I do not know; I have no inside knowledge other than what I read in the media about that project, but that is absolutely true. If these projects are too expensive and they do not make sense, they will not happen. But, as a state, we need to give them a regulatory environment in which they at least understand what their costs are. That is what the domestic gas reservation policy does and what this bill provides.

I have not talked much about geothermal energy. Geothermal energy is one of those great opportunities. The trick will be to take the technology, as happened in the United States with shale gas, from being an opportunity to an actuality. It is very interesting that many of the technologies that are used for shale gas can be transferred over to use in geothermal energy in finding the hot rocks, drilling down to them and cracking them open to allow a flow of hot water through the rocks to generate this potential energy. None of us knows where that is going to go, but if it works, it will be great because it is potentially a lower emission form of baseload energy, which is always the trick. The problem with a lot of good energy production sources like wind and solar is that they are difficult to implement in a baseload situation. They are getting better. Solar photovoltaics are quite predictable in their contribution to the energy sector, and it is becoming easier to include them in the energy mix. Wind has a lot of attractions as well. It will be good for a greater examination of the opportunities for hydropower in Western Australia. We do not have a lot, but people in the industry tell me there are probably a few more opportunities that have not been exploited, which is probably worth looking at. But if geothermal works, it will provide a real opportunity for Western Australians and others to provide a long-term baseload supply of energy for our future. To the extent that this legislation facilitates that, that is a good thing. If the minister has the answers to the questions I asked, I am not proposing to go into the consideration in detail stage. I know a couple of my colleagues want to make some remarks as well. I am happy to have recorded the Labor Party's position on this legislation.

MR F.M. LOGAN (Cockburn) [12.59 pm]: I will add a few comments to those that have been put forward by my colleague on the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012. I know that the Petroleum and Geothermal Energy Safety Levies Amendment Bill is only a very short bill that amends the act to impose energy safety levies on this part of the industry. Again, I would like to know from the minister exactly how the rates are to be struck. Are they to be struck as a percentage of something or will they be a flat dollar amount? I would like the minister to explain that to the house. As my colleague asked, what amount is expected to be raised on a per capita basis from these energy safety levies and how does the minister expect them to be spent? I understand that the minister will be working in conjunction with the National Offshore Petroleum Safety and Environmental Management Authority, as it is now known. Obviously, from discussions that the minister has had with that organisation, he will probably know how it will go about applying its safety regime, particularly its pipeline management plan.

Given the fact that this legislation covers onshore and geothermal energy, how will the levies be struck against organisations such as geothermal energy companies? The reason I ask is that, as the member for Cannington just

pointed out, although work is being undertaken now in Western Australia on geothermal energy, it is very marginal because of the cost involved in drilling. The geothermal energy companies in South Australia are subsidised by the South Australian government, and the federal government to a certain extent, to carry out their deep drilling for geothermal energy north of Roxby Downs. We are not in that situation in Western Australia, but I can imagine that geothermal energy companies that are anywhere near the possibility of getting a successful plant up and running would seek state government assistance. Therefore, when geothermal energy companies are operating marginal businesses, what will be the impact of applying a safety levy to those companies? I imagine we would probably hear them screaming from here. In fact, will the levy apply to them or have they asked for an exemption; and, if they have asked for an exemption, will they be given an exemption? I would like to know about that and, further, I would also like to know about its impact on onshore petroleum exploration. As the minister knows, a significant amount of gas exploration is underway at the moment, possibly leading to production, in the Great Sandy Desert, and a significant investment has been made by some of our major resource companies to assist exploration companies to find onshore gas in that part of Western Australia. They are marginal operations also. In fact, most of that onshore petroleum and gas exploration and production is quite marginal. I would like to know exactly what will be the impact of these levies on those operations. Like my colleague the member for Cannington, I would like the minister to provide some advice and assistance to the house on those questions.

I want to also say a few words about the oil and gas industry, in particular about the availability of gas for domestic purposes, as the member for Cannington referred to earlier. I will take a slightly different tack and talk about stranded gas. The Premier, in his role as the Minister for State Development, said a few words about this. Certainly, when he was Leader of the Opposition, and also when he was simply a backbencher during the time when he was not Leader of the Opposition, he made significant comments on the issue of stranded gas, and in particular the Prelude field. The Prelude field is a stranded gas field made up of the Concerto and Prelude fields, which are around the Browse Basin, but significantly north of Broome. It contains three trillion cubic feet of gas. It is not very big at all when we compare it with the size of the Gorgon and Woodside fields, and the Browse field, for example, which is alongside it.

When I was the Minister for Energy; Resources in Western Australia, the idea of a floating liquefied natural gas facility was put forward by Shell to take advantage of sucking up the stranded gas in offshore Western Australian waters, particularly targeting those small fields. When I raised this in the house as an issue that I strongly disagreed with, as the minister, I expressed that to the then new federal Minister for Resources and Energy in Canberra, who was Martin Ferguson. I put it in writing to him on a number of occasions that I strongly opposed this approach of a company coming in and then sucking up a small three trillion cubic feet field, liquefying it, upping anchor, then moving off to the next field and continuing on. I was supported in that view by the member for Cottesloe, who strongly argued against it also. At the time when I was arguing the case with Martin Ferguson, he was equivocal on the matter. He would not commit to approving Shell's proposition and he would not oppose it. He was very cagey on the matter and very equivocal. Nevertheless, something must have struck Shell as though it would get the approval for that because it continued on with the project, and then gave a contract to Technip and Samsung Heavy Industries to do the design work on the world's first floating liquefied natural gas barge—it is not even a ship—and it then went into production in South Korea. Consequently, Martin Ferguson signed off and approved the access to that stranded field, and the member for Cottesloe, who is now the Premier, acceded to it also, which I thought was quite a surprise. I know that at the time he expressed his concern over what the federal government was doing —

Mr C.J. Barnett: I think I was convinced that that field was not large enough to ever support a traditional LNG development. I think that is the case. What concerns me now is that people are starting to talk about floating LNG for far bigger fields. I think that one was a bit in the middle. It did not change my mind, but I guess on that point I was convinced, and I think it is probably right, that that field would never support a major development by itself.

Mr F.M. LOGAN: I think, given the remote nature of the field—the Premier is probably right; it is 470-odd kilometres offshore—and that it is a small field, the likelihood of development for domestic gas is very, very remote. I concur with that. But, as the Premier indicated, it is the principle of the matter. Once one FLNG project comes into operation, others will get hold of the concept and do the same. Also, the federal government gave the green light to move to stranded gas. As the Premier knows, when we talk about access to domestic gas and reserve policies, industry's view, member for Cannington, is, "Look, you leave the big fields to us; we will handle all the big fields because it makes sense to liquefy the gas out of the large fields and you, WA, go after the stranded gas."

Mr W.J. Johnston: They all say, "Leave the big fields to us and you can have the little fields". During the gas inquiry we asked a number of the proponents if they could name some fields that would be suitable for domestic production, and they would not name them. Whether they knew where they were or not, I am not sure.

Mr F.M. LOGAN: For good reason. They would not name them because the view in the industry now is that if Shell can pull off the Prelude FLNG, others can.

Mr W.J. Johnston: Also, member, you might not realise that the Io field, which belongs to BP, is not part of the Gorgon joint venture, but they sell the gas at the inlet valve to one of the operators and then produce gas as LNG at the off-take and sell it to Japan. It is effectively the first third-party LNG processing in Australia, and that provides a model for future projects.

Mr F.M. LOGAN: Including the stranded gas projects.

Mr W.J. Johnston: Including small fields of stranded gas.

Mr F.M. LOGAN: The issue with this, and following what the member for Cannington said about the domestic gas reserve policy, is that no matter which way nation states and states jump in to protect their own interests and the long-term energy needs for a growing state, the oil and gas industry has a different view and different argument and will continually move the goalposts to get access to every single last hydrocarbon drop offshore. That is the reality. If we look at the Prelude project itself, the real concern I had as the minister for not only resources, but also industry and enterprise, in trying to link the two to ensure that we got some work out of the project was that the scale of the project was absolutely mind-boggling. The FLNG Prelude facility is 488 metres long and 74 metres wide and when fully loaded will weigh 600 000 tonnes, which is roughly six times the weight of the largest aircraft carrier in the world. Of that weight, 260 000 tonnes will consist of steel, which is five times more than was needed to build the Sydney Harbour Bridge. We are talking about a floating project, the scale of which the world has not seen yet.

Mr C.J. Barnett: Local content will not be particularly high.

Mr F.M. LOGAN: The local content is zilch.

Mr C.J. Barnett: That I think is a big issue.

Mr F.M. LOGAN: It is a major problem for us. As the Premier just indicated, if FLNG is successful—I am sure it will be successful, because from an engineering perspective it will work—it will encourage other companies and other states because, remember, in the energy world we are not talking only about corporations; we are talking about nation states being involved in the game to invest in massive facilities like this. Unlike every other country on the planet, in Australia we literally have an open-door policy on access to our offshore energy resources, so we will probably see more FLNG facilities.

Mr C.J. Barnett: I will not interrupt your speech other than to say the other big game changer now is shale gas in the Canning Basin. That is presumably three times the offshore resource. That will fundamentally change all these issues again, and the good thing is the ownership is clearly Western Australian.

Mr F.M. LOGAN: It is clearly Western Australian.

Mr C.J. Barnett: It will affect prices all over the market too.

Mr F.M. LOGAN: The member for Cannington spoke on that before the Premier came in. It is about not just shale gas here in Western Australia, but shale gas projects around the world. As the member for Cannington indicated, the shale gas projects in the United States have brought Henry hub gas prices down to \$2.

Mr C.J. Barnett: We've got one of the world's greatest resources here.

Mr F.M. LOGAN: Yes, we have.

Mr W.J. Johnston: Some of the companies that have acreage in the Canning Basin want to export shale gas. Just as CSG was not —

Mr C.J. Barnett: This time the state holds all the cards.

Mr F.M. LOGAN: I hope we can exercise them in the long term, Premier, because we can see what is happening with coal seam methane gas in Queensland.

Mr C.J. Barnett: The Queensland government handed it over to the commonwealth. That will not happen here.

Mr F.M. LOGAN: Yes; they are pulling it out as fast as they possibly can and liquefying that as well. I think in Queensland they are facing the same problems we have over here with local content, and I think they will get worse—even though when I was minister, I advised them, “Be careful; you might see modularisation and most of that work being done offshore and it being barged in through Brisbane and Gladstone.”

Those are the issues relating to oil and gas that I would like to put on the record. My concerns about the knock-on effects of stranded gas are for not only the national and the state interests, but also jobs and the future of the fabrication and manufacturing industry here in Australia, and in Western Australia in particular. FLNG-type projects such as the Prelude field are just bad news. Despite the fact that I raised this over and again with Martin

Mr Bill Johnston; Mr Fran Logan; Mr Chris Tallentire; Ms Rita Saffioti; Mr Eric Ripper; Mr Bill Marmion

Ferguson, he approved it and signed off on it, and he did not seem to have any problems with it being completely fabricated overseas. As I indicated, this is one of the largest projects ever seen on the planet—260 000 tonnes of steel and all of that will come from overseas. I will sit down and look forward to the response from the minister.

MR C.J. TALLENTIRE (Gosnells) [1.17 pm]: I, too, would like to contribute to the second reading debate on the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012 and note that the reason for the two bills is the requirement for a taxing bill. I hope the minister can explain in a little more detail why, constitutionally, the second bill needs to enable that. Fundamentally, this amendment will enable us to extend the jurisdictional boundaries so that we can charge a safety levy on petroleum and geothermal energy operators.

I think this raises a question about the user-pays model, which is something, generally, I support. However, when it comes to safety, some questions have to be asked. In a user-pays situation, naturally those people who are using the service will want to contribute as little as possible to that service. If that means that we have downward pressure on the money that is raised to pay for services and the monitoring of safety, I think there are some reasons to be a little concerned. Nevertheless, I think the legislation does outline a good way forward and will ensure that we have the money necessary to maintain the highest safety standards. That is a positive thing.

I would like to focus a bit on the geothermal aspects of this legislation. I note that very close to us, I believe, in the suburb of Kensington, only a few kilometres away from here, a three-kilometre hole is soon to be drilled down to water with a temperature around 90 to 95 degrees Centigrade. That water will be used to cool the computing equipment that will be so critical to the SKA. The computing equipment that goes with the Square Kilometre Array has absolutely enormous needs. The amount of data that will be processed each day at this Pawsey Centre in Kensington, I think, is equivalent to the amount of data contained in any of the world's biggest libraries. That is the daily processing potential of the computing equipment at the Pawsey Centre. Naturally, a massive amount of computer capability is needed. To cool that computer hardware, a very powerful and energy-intensive cooling system is needed. That is where this geothermal application can be used.

In some ways, though, I think this is a bit of a prototype or an indication of the potential of geothermal energy. Often we hear about geothermal and think in broader terms about its potential application as a form of baseload electricity generation. That is where we are headed. That is where the really exciting contribution from geothermal energy will be. Initially we have these earlier stages such as the computer equipment in Kensington. Already the water at the Challenge Stadium pools is being warmed by geothermal energy.

Mr W.R. Marmion: Claremont pool.

Mr C.J. TALLENTIRE: There is Belmont pool and Beatty Park as well, I understand. We are seeing around us a succession of places using some form of geothermal energy. As I say, the really exciting application will be when we manage to produce energy that can be measured in megawatts. That is not that far away.

Sustainable Energy Now is an organisation that I know a number of members around the chamber are members of. It is a very good organisation and one that is fiercely not-for-profit. It is fiercely not an industry group as such. It is a group of people who are just passionate about getting Western Australia and Australia generally to switch over to renewable energy. They have in their membership some people who have real technical expertise. They are often people working as academics in the area. Some of the information they have assembled and put on their website really tells the story of the potential of geothermal energy.

One figure they have provided relates to the SWIS, the south west interconnected system—the grid that we are on here in Perth that extends from Kalbarri in the north and down to Albany in the south and out to Kalgoorlie. Sometimes around 3 700 megawatts of electricity is needed to meet demand on a peak summer's day. A geothermal area some 20 kilometres by 20 kilometres, one kilometre deep, would provide the energy to provide the electricity that would power us on the SWIS grid. In other words, it would provide us with around 4 000 megawatts of electricity. So there is enormous potential there. Of course, a suitable geothermal energy reserve of that scale would need to be found—20 kilometres by 20 kilometres and one kilometre thick of granite. Exploration work is ongoing in the Darling Scarp, I understand. It is an important consideration when we look at this legislation. I know that the member for Cannington touched on this aspect. When there is a new industry, with a potential tremendous source of energy, it needs to be nurtured along a little in the early stages. That is where I have concerns about the application of this levy to this industry, which is probably best described as being in an embryonic phase, or in its early stages at any rate. We need to ensure that industry in its early stage is not hit with excessive costs of any kind. Indeed, I think there should be generous subsidies from government for this sort of energy exploration and application.

Going back to what I said earlier about the Pawsey Centre, I note that the federal government has contributed \$47.3 million towards the generation or the creation of that whole system, including the drilling of the hole and the technology to ensure that it provides the cooling system we need for the Pawsey Centre. We often hear of

major pieces of infrastructure from the federal government. When we ask a few questions, we find that it is the federal government that is funding these things. There is scope for the state government to be involved as well. We would certainly encourage the government of the day to be active in pursuing, supporting and assisting geothermal energy generation as one example of the sorts of energy that we need for the future.

I think the rates that are applied need to be quite clearly spelt out. What sort of safety levy would apply to the Kensington Pawsey Centre air-cooling system? I can understand that there will be a degree of piping involved there, and there may be safety issues. My initial response, though, is that it would be a fairly benign form of system. I could not imagine that there would be an onerous demand on the companies, the organisations running that system, to monitor and report on their safety. I would like to know how much of a safety levy they would be up for and just what sorts of costs would be involved.

More broadly across the Perth Basin, though, it is worth considering what other costs could be involved as we explore this resource. I think of the Perth sedimentary basin and the potential there. My understanding is that quite a bit of the Perth sedimentary basin—I think this is demonstrated by the sort of early applications we are seeing—has a form of geothermal energy that is probably characterised by relatively low temperatures of water. That is perhaps a factor in the formula we use to calculate what the levy should be. The temperature of the water is a factor, whereas if we are looking at water that is, as is often the case, in the 200 to 300 degrees range, perhaps the safety implications for workers at the top of a borehole could be of a whole different nature from those for someone who is near water that is at source 90 to 95 degrees Celsius. Having said that, one could get a serious burn from water that is quite close to boiling point, so there would be issues there as well.

There are other aspects, though, about the Perth Basin. It has a high degree of natural permeability. That allows the flow of water to carry heat quite readily. That is seen as being a means of developing projects in a fairly cost-effective way. It can be done in a cost-effective way—more cost effective than what we might call the classic geothermal systems. When I think of the classical geothermal systems—it is a strange term to describe them as classical—I think of ones that are really well known such as the Cooper Basin system, which has a different and a much more costly approach. I think the difficulties people have had with commercialisation of geothermal energy in the Cooper Basin perhaps demonstrate that there are orders of magnitude involved in terms of the complexity of developing that resource. There are definitely some exciting considerations to be had.

More broadly, though, across Australia—I have mentioned the Cooper Basin—we have fields there that could potentially supply electricity to the order of 10 000 megawatts. Bearing in mind that I said before that the requirement for the whole south west on a peak day is getting up to 4 000 megawatts, we have fields—the Cooper Basin, for example—that could easily provide 10 000 megawatts. So there is enormous potential here. One of the difficulties is that they have to drill down to hot rocks that are three to five kilometres below the surface. So there is work to be done and there are issues to be managed. But it is certainly achievable with the sorts of technologies that we have today.

I want to note here the work of a company called Geodynamics Limited. That company is listed on the Australian Stock Exchange, and it is doing work around the Cooper Basin and attempting to fully commercialise its operations there. That company says that the water temperatures that they are dealing with are around the 200 to 250 degree Celsius range. They believe that they have access to some of the hottest spots on earth outside the volcanic areas.

Mr W.R. Marmion: Where is that company operating?

Mr C.J. TALLENTIRE: It is operating in the Cooper Basin. That is another indication of how fortunate we are in Australia, because not only do we have incredible wind resources and obviously incredible solar resources, but also we have geothermal potential. There has been some general comment that says that these are good resources, but they are often at a considerable distance from population centres. However, I think that with the development of grids and transmission lines, we can deal with that problem. In the case of the Cooper Basin, there is convenient proximity to a centre that requires an enormous amount of electricity, and that is the Olympic Dam operations. It has struck me that there is a certain irony in the fact that the operations at Olympic Dam, which already is an active uranium mine, need a massive amount of electricity, because they are producing not only uranium, but also gold and copper and I think other minerals. Geothermal energy, which would be one of the cleanest energy sources of all, would certainly make that mining operation at Olympic Dam more viable. However, I do not think that operation is currently using geothermal energy; I suspect it is probably using a lot of diesel, and it might even be connected to the national grid in some way as well.

In returning to the substance of this bill, I note that this bill is about achieving a means of equitably charging all those involved in petroleum and geothermal energy a safety levy and making sure that they are all involved in that. That is where I ask the question: how can we do that when there is such variability in the nature of the works that are taking place? One operator might be operating in an environment in which it is very easy to monitor the safety operations; and it is then very easy to say, yes, the company is providing a very safe working

environment for its employees and therefore it should not have to pay as much as another operator that is operating in an environment that poses a higher degree of risk. The proposal in this bill is that there will be a banded charging system that will determine the levies that individual operators will be required to pay. I suppose a lot will come down to how sophisticated those bands are. If we are talking about just 10 or 12 bands that will determine what levy is waged on a particular operator, I am not sure that will provide the level of sophistication that we need to differentiate between a company that is operating in almost a benign situation versus a company that is operating in a highly risky situation. Perhaps it is something the minister can address when he responds to our speeches. I am pleased to support this legislation and I look forward to hearing the minister's comments.

MS R. SAFFIOTI (West Swan) [1.35 pm]: I rise to speak on the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No 2) 2012. I am glad that I am following the member for Gosnells, because he is so knowledgeable in the area of renewable energy and clean energy. My comments relate mainly to geothermal energy and to what a prospective source of energy that is for Western Australia. As the member for Gosnells outlined, Western Australia is a very prospective jurisdiction in relation to geothermal energy. I remember that when I was working in government, people were very excited about geothermal energy as a very good clean source of energy for the future. It is interesting to look at the history of geothermal energy in this state. I note from one of the department's websites that exploration for geothermal energy in Western Australia was formalised in January 2008. Currently, seven companies are exploring for geothermal energy in this state and there are 41 geothermal exploration permits in this state. I note also that the University of Western Australia and the Commonwealth Scientific and Industrial Research Organisation are developing new technologies for geothermal energy exploration, exploitation and utilisation.

The member for Gosnells outlined that the Perth Basin is seen as one of the most attractive places in the world for geothermal energy, followed closely by the Carnarvon and Canning Basins in Western Australia. Geothermal energy is an industry in which I think Western Australia has a comparative advantage. In addition to solar and wind energy, geothermal is one area to which Western Australia can look in the future as a source of energy to fuel our increasing need for energy. Certainly when we were in government, geothermal was an area to which we were paying increased attention because of the role that it can play in the future. At the time we noted that geothermal energy is used to help heat the swimming pools at Challenge Stadium, and also in Belmont and other areas.

I was very interested to hear the member for Gosnells talk about the supercomputer at Kensington and the possibility that geothermal energy could be used to help cool that supercomputer. In talking about the relationship between new technologies in Western Australia and the importance of science and innovation, I want to compare the Square Kilometre Array project with geothermal energy. The SKA project will bring enormous benefits to Western Australia. Western Australia did not get the entire SKA project. We got a mini SKA, or a part of SKA —

Mr W.J. Johnston: Son of SKA!

Ms R. SAFFIOTI: Yes, son of SKA!

Ms M.M. Quirk: SKA tissue!

Ms R. SAFFIOTI: The distant cousin of SKA!

The SKA project will bring enormous benefits to Western Australia and the midwest region. It is important to trace back why we were even in the running for SKA and how government, through its science and technology portfolios, can help these new industries. I reflect back on the science and innovation effort made by the Gallop government and subsequently by the Carpenter government. I remember in particular when Geoff Gallop, back when we were in opposition, developed the Innovate WA policy, and how science and innovation can help fund and encourage new industries. When Geoff Gallop won government in 2001, he established the WA Science Council. That council came up with a number of recommendations on how to ensure that Western Australia would lead the nation and the world in its science and innovation effort. One of the Science Council's recommendations—I cannot remember whether it was in the first or second round of recommendations—was that the state government should provide assistance in the form of Premier's Fellows to attract to Western Australia experts in particular fields, who could then encourage other scientists and innovators in the Western Australian community, and we could then start to build economies of scale and a centre of expertise. The first Premier's Fellow was awarded to a radio astronomer. That radio astronomer set up in Western Australia. One of the reasons that I believe we were in the running and put up our hand for the SKA bid was the fact that we had a Premier's Fellow in Western Australia whose expertise was in radioastronomy. That person led the campaign and made sure that Western Australia was at the forefront of the bid. He gave WA a huge chance to win the project. As I said, we have the son of the Square Kilometre Array project, or a distant cousin of SKA or even a

mini SKA. Indeed, we have got part of it, and it will deliver immense benefits to not only the midwest, but also Western Australia as we build up our expertise in that area.

It is very important that through science and innovation we encourage new industries and that we look to where Western Australia has a comparative benefit for new industries. The term “new economy” is pretty much an old word in a sense and is yesterday’s term, but it is about making sure that Western Australia is taking advantage of its natural assets. Radioastronomy was a clear case because we have a big radio-quiet area and there are enormous benefits that we can bring through the midwest. SKA is a good example. I know this government likes to take credit for everything but, frankly, if there was no Innovate WA policy and that early investment in science and innovation, there would have been no project to pursue because we would never have been in the game. I compare it with the geothermal issue. One of the things this government has not done well—amongst other things—is its effort in science and innovation. It has not looked to the long term of investing in those industries in which we can develop expertise. I mentioned the SKA project as one example. I will talk about the National Centre of Excellence in Desalination, which the minister has been promoting. Again, that was initiated under WA Labor and supported by federal Labor, although it possibly could have been in the last days of the Howard government. Western Australia was the first state to go down the desalination path for drinking water. We have proven expertise and proven delivery in that area and we have used that to develop a centre of expertise. Geothermal energy should be one of the areas in which we as a state invest to ensure that we not only utilise the massive natural resource in this area, but also become a centre of expertise, which will allow us to export that intelligence and intellect to other states and around the world. There must be a bigger effort into science and innovation to ensure that we develop our comparative advantage and develop that expertise.

The opposition supports the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012. I share some of the member for Gosnells’ concerns about placing a levy on this sort of infinite industry. We can overcome that by ensuring that the state invests more into science and innovation to ensure that we encourage these industries. Although we support the bills, we have some reservations. The whole area of geothermal energy is very prospective for Western Australia and it is something the state needs to encourage.

MR E.S. RIPPER (Belmont) [1.45 pm]: I would like to comment on two aspects of the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012. The first aspect I will comment on is the government’s hunger for revenue. This is a relatively small item in the government’s chase for revenue, but it is added to a long list of initiatives that the government has implemented since it came to power. The government promised to reduce taxation should it be elected. It has broken that promise and compounded that broken promise by cancelling tax concessions for business that were already in the financial plan before its election. It has gone ahead with a number of revenue-raising measures since its election. I refer to what it has done with utilities. It has increased the dividend payout ratio and applied an efficiency dividend to the utilities, which will not in any way benefit consumers, but simply add to the effective utility payments to the government. It has also increased the loan guarantee fee charged to utilities for their borrowings. In at least three ways the government has significantly increased its take from the utilities while, at the same time, the people of Western Australia are groaning under the weight of the increased charges the government is applying. The government argues that these charges are required simply because the cost of supply is not met by the revenue received from consumers. The government cannot honestly argue that while it is increasing its own take from the utilities through the measures I have just described.

A second area in which the government has sought revenue is from the resources sector. While the government campaigns strongly against the federal government’s mining tax, it has substantially increased royalties taken from the resource sector. I am critical of the government’s approach to that exercise because, in effect, it eats the future. The government gets the cash from the royalty increases now while the goods and services tax punishment comes later. In the next term of Parliament, the next government will face serious revenue difficulties because the GST punishment for the royalty increases will kick in with real earnest. The government, therefore, has eaten the future with its royalty increases, just as it has eaten the future with its massive increase in state borrowings.

I now refer to the current revenue-raising exercise. Of course, we support more resources going into safety in the petroleum and geothermal industries. As a state, we have seen not only the potential dangers to individual workers, but also the threat to the state’s economy from massive petroleum industry accidents, such as the Varanus Island gas explosion. We support additional resources into petroleum safety and, consequently, we support this legislation; I simply point out that it is just one more in a long list of government revenue-raising measures. This conservative government was elected on the promise that it would reduce taxation levels, yet it has found every way outside taxation to raise additional revenue, mostly through the utilities, but also through a range of other charges. The waste levy to fund part of the budget of the Department of Environment and

Conservation, the big increases in the emergency services levy, the levies on the resources sector and the increases in royalties are all examples of what I am talking about.

The second issue that I wish to comment on is the overall administration of safety in the petroleum industry. One big lesson that has been learnt from the Varanus Island gas explosion is that there has been too much confusion about the jurisdiction of different government agencies in Western Australia and federal and state agencies on the question of petroleum safety. Having multiple jurisdictions and agencies involved in safety regulation is in itself a risk. We need a unified administration for safety issues in the petroleum industry. We need that to avoid confusion and to avoid the avoidance of responsibility. We also need a unified administration so that we can assemble a critical mass of resources to run such an agency. It is difficult to find people to regulate safety in the petroleum industry because of the salaries that are paid in the resources sector and the difficulty that the public sector usually has in matching those salaries.

If we want effective regulation of safety in the petroleum industry, we need to avoid jurisdictional confusion and we need the capacity to assemble the expertise required. What this says to me is that there should be one agency regulating safety onshore and offshore. I am disappointed that because of its ideological and political focus on bashing Canberra, the government has resisted the idea of one single agency to regulate safety in the petroleum industry. By taking that approach, I think the government is putting its own political needs and its own ideology ahead of the real requirements of safety. I do not hesitate to defend Western Australia when that is required. I do not hesitate to stand up for the interests of this state, but we are part of a nation and we should stand up for the interests of this state when it is required by our different circumstances. I think the interests of safety in the industry outweigh the arguments for a separate Western Australian agency to regulate onshore activities. Therefore, I say to the government, “Go back and have another look at the real requirements of safety and desist from putting your ideology and the benefits of parochial Western Australian politics ahead of what would be the optimum safety outcome in this industry.” I do not normally agree with handing matters over to the commonwealth. When I was the Treasurer of this state, I did not hand over regulation of access to gas pipelines to the federal access regulator. I set up the Economic Regulation Authority to provide regulation at a state level. I am a states’ rights person and I am strongly of the view that there are many occasions when circumstances in Western Australia demand a response different from what might be applicable on the eastern seaboard. On this occasion, I think the balance of the arguments supports a single regulator. That would have to be a commonwealth regulator, given the amount of gas in commonwealth waters and given the commonwealth’s capacity to recruit the required expertise. Therefore, I fear that we have cut off our nose to spite our face by insisting on a separate state regulator for onshore activities. I think that will, in the end, ultimately create difficulties. There is always the potential for jurisdictional confusion at the boundary between onshore and offshore activities. There is always the potential for buck-passing and avoidance of responsibility. In addition, the state will face the difficult task of recruiting and maintaining the expertise necessary in a very competitive skills market with the resources sector paying high salaries.

With those reservations, I, too, along with my opposition colleagues, support the bills. I point out, however, that this is another example of this government’s hunger for revenue and its search for every possible way of raising revenue without actually raising taxes. I re-emphasise my point that we have not achieved the optimal safety outcome that we could have if we had been prepared to drop our parochial insistence on states’ rights.

MR W.R. MARMION (Nedlands — Minister for Environment) [1.54 pm] — in reply: I think that I will find it difficult to complete my remarks in the time remaining, so I do not think I should try! I thank all the members who spoke on the second reading debate for the Petroleum and Geothermal Energy Safety Levies Amendment Bill 2012 and the Petroleum and Geothermal Energy Safety Levies Amendment Bill (No. 2) 2012. They raised some rather good questions and interesting general points. I will endeavour to answer the specific questions raised by each speaker.

The member for Cannington wanted me to talk about the diving boats. As the member correctly pointed out, the amended act will cover diving boats. He wanted to know how many operators there are. I understand that there are about eight operators. The member asked: how much will be raised from them? The diving boat operators will probably be on the lower scale. I will get to that, although I may have a bit of trouble explaining. However, they will be on the lower scale. If they were to operate for 12 months, it would be around \$12 000 for the operator if they operated 365 days a year. If they operate for less than that, it will be pro rata, so it is not a huge burden for them. In terms of what we might get from that whole sector, it might be \$100 000 for the dive boat sector.

The member for Cannington also asked: why was this legislation not addressed when the other bills went through? That was because the National Offshore Petroleum Safety Authority was the regulator when the other bills went through, so it could not be in this legislation because it relates, as the member correctly pointed out, to the offshore waters up to our three-mile nautical limit or wherever that is. Therefore, at the time the other levy

bills for the mining, oil and gas industry went through, that area was under commonwealth jurisdiction. It is not now; hence this legislation amends that act so that we can pick up that area.

There was a lot of industry consultation. There were mail-outs, lots of meetings, presentations to associations and guidelines, and factsheets were sent out. Also, there is a mini guide on how to calculate —

Mr W.J. Johnston: Which associations?

Mr W.R. MARMION: I do not have those listed but they were industry associations. I understand that they were all very happy because the levy that the commonwealth charges is higher than what they will be charged by the state. The advice is that industry has been consulted and, as the member for Cannington's research correctly pointed out, the industry is not unhappy. Obviously, the diving industry has a new imposition.

Mr W.J. Johnston: I didn't say that they were happy; I just said that they accepted it.

Mr W.R. MARMION: It was accepted. The member for Cannington also made some good general comments about domestic energy and geothermal power, which is quite interesting.

The member for Cockburn asked a number of questions and also raised some really good points that I did not know. The size of floating liquefied natural gas platforms is phenomenally large. His first question was: how are levies to be structured? All pipeline offshore petroleum diving exploration operations are assessed on their complexity. A bit of a rough ready reckoner is handed out, with the highest being category A. It goes through the pipeline diameters, the depth of the well, the number of people operating on the rig and whether there is accommodation on the rig, and gives a rating from A to F. If an operation gets an A, it will pay a fair bit, and if it gets an F, it will be down to just \$12 000. That is roughly how it works out.

The member for Cockburn also asked what revenue value will be raised from the coastal water activities. I have been advised that the estimated revenue will be \$1.2 million, so that is the amount of money they will have. It will be in a separate fund, so we can make sure that it will be used on safety activities.

The member went on to talk about the onshore side. These bills do not cover onshore levies because they are covered by the previous bill. The approach to working out the actual offshore levy is similar to the approach to the onshore levy. The member for Cockburn also asked a question about the impact on the onshore petroleum industry. These bills do not deal with the onshore petroleum industry, which is already charged a levy.

The member for Gosnells asked the obvious question about why there are two bills. Under section 46(7) of the Constitution Acts Amendment Act 1899, it is required that bills imposing taxation must deal only with the imposition of taxation and no other matters. Therefore, parliamentary counsel advised that there be a separate bill for the sole purpose of imposing a levy to ensure that legislation is compliant. This was also done with the original levy acts.

The final question was: what sort of safety levy would be applied to the Kensington installation? The drilling activity would be considered high risk during construction and low risk during operation, and that will be sorted out when it happens.

Debate interrupted, pursuant to standing orders.

[Continued on page 4081.]