HANSARD

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ECONOMICS AND INDUSTRY STANDING COMMITTEE

Third Report — "The Potential for the Development of a Centre of Excellence in LNG Industry Design in Western Australia: a Discussion Paper" — Tabling

DR M.D. NAHAN (Riverton) [11.03 am]: I present for tabling the third report of the Economics and Industry Standing Committee entitled "The Potential for the Development of a Centre of excellence in LNG Industry Design in Western Australia: a Discussion Paper".

the processing of the mineral and energy resources of Western Australia has been a major objective of successive governments for at least 40 years. The rationale is profound and, in many ways, has been perceived to be the Holy Grail. The aim is to get more out of our resources, to create jobs, to diversify the economy and hopefully to offset the natural boom, bust conditions in the resource sector.

Gas has long played a major role as a feedstock and an energy source and it has been processed into liquefied natural gas. Although there have been some successes in downstream processing, we have been less successful than we would wish to be in that regard, and there are a range of reasons for that. This discussion paper does not go through those reasons, but focuses on another issue. A couple of decades ago, successive governments realised that there were difficulties with the downstream processing of manufacturing and so they focussed on upstream activity; that is, on the services and design activities that are associated with mineral and energy development. That has included exploration, design work, maintenance and export opportunities.

In the early 1980s, when the North West Shelf project was first mooted, the goal of the then government, which was adhered to by successive governments, was to create a greater engineering design industry in the LNG industry in Western Australia. When the first train of the North West Shelf was designed, about 10 per cent of the heavy engineering was designed in Perth. That figure steadily increased and by 2001–02, the fourth train was designed in full in Western Australia by a joint venture between Clough, Hatch and Kellogg. That was a major achievement.

The reason that Western Australia focused on getting high-level engineering design is that it seemed to strongly suit Western Australia. Western Australia has a large number of engineers with a high level of engineering design expertise across many aspects of engineering. Western Australia was competing against firms in areas that were not very cost sensitive. However, most places that do high-level designed are in high-cost areas. The three major high-level design hubs are in Reading in the United Kingdom; Houston, Texas; and Yokohama, Japan.

Western Australia has huge endowment of natural resources, and of LNG in particular. The North West Shelf project is a very large project by world standards. Even in the 1980s we knew that there was a large amount of gas that would eventually be processed. We had a large pool from which to develop. As I said, successive governments focused on incrementally growing the engineering design industry, and they were successful. The fourth train was 100 per cent designed in Western Australia and it involved 500 full-time workers over three or four years.

That was a significant achievement and it was the first time that a major design work of that type was done out of three hubs in Reading, Houston and Yokohama. However, after the fourth train was designed here, the fifth train for the North West Shelf, subsequent trains for Pluto, and, it appears, for the Pluto project, have gone offshore. Since 100 per cent of the engineering design for the fourth train was done in Western Australia, the percentage of design work done in Western Australia has decreased significantly to between five and 10 per cent.

The committee decided to examine this issue, about which there has been substantial discussion in the media and other places. This is a big issue. The committee inquired into what has happened. Can we get back to the previous level? What is the rationale for the decrease? Should we focus on something else?

The committee firstly looked at Western Australia's capabilities and competencies. Of all the major LNG areas, there is no doubt that Western Australia has the competency and the skill base to undertake this work. There are an estimated 4 000 design engineers resident in Western Australia, and many other Western Australians who have experience in this industry are willing and able to come back. Engineers are nomadic. The team that worked on the fourth train comprised people from all around the world, including a large number of Western Australians. Many of the Western Australians who worked on that project left the state and went to Reading in the UK.

We have the competence. We lost the fourth train team; it was disbursed. It would have to be put back together. There are some difficulties, but the evidence presented to the committee was that Western Australia has both the competency and the capability; indeed, they are core strengths.

One key problem of the design work is continuity of work. When the fourth train was set up, a project-specific team was assembled to work on that project. That was very expensive. After the project was finished, there was uncertainty about whether there would be other work for the team to continue with. The lack of continuity of work is one of the core weaknesses of Western Australia. However, this was found to be a core strength for companies outside Australia. Companies located in Reading, which are increasingly getting most of the work, have a huge book of work from around the world.

A developer of an LNG project can walk in to one of those companies and say, "I want a train in three years," and it is just added to an already very large work program. About 60 LNG facilities have been mooted for development around the world over the next few years. Thirty of those projects are expected to be in either Western Australia or Queensland. There is $89 billion of work in LNG on the books at the moment, with potential for growth. In other words, given the expansion in this area in recent times, although not in the early part of the last decade, there is the potential for continuity of work in Australia, which would overcome this major issue.

One issue that kept coming up was cost. This was one reason for and a rationale behind the design work for the fifth train moving offshore. It is true that work on the fourth train went over budget. It is also true that there was a nascent mining boom in Western Australia during 2003 and 2004 and there was a shortage of labour, particularly of skilled labour. There were cost pressures. However, the evidence the committee received was that Western Australia is cost competitive, particularly in high-level design. More importantly, the location of the design costs is not a significant factor because the cost of the design work is not large—probably costing $200 million to $300 million out of a $10 billion project.

Cost is a consideration, but the majority of people thought Western Australia has substantial strength in this area. Engineers in Reading and Houston would be no cheaper or more effective than those in Perth.

One issue the committee considered was the regulatory environment. There was overwhelming agreement that the regulatory environment in Western Australia, indeed in Australia, is very open and conducive to development and design work, and that sovereign risk is about zero. The regulations contain no barriers to these developments—we were given a big tick.

One major issue concerned the benefits of incumbency. This happens in all industries, but particularly when things are done on a large scale. Only about nine firms around the world undertake the development of this activity. All are located and concentrated in three hubs. Those companies have huge benefits of incumbency; that is, they have done it all before, they are low risk, they are very mobile, they can draw on a global supply chain and, importantly, they have pre-approval and accreditation all the way along the line. When I was a junior officer in the Department of Resources Development between 1985 and 1990, one of my tasks was the Gorgon file.

During that time we tried to get a large number of the firms that were working on the North West Shelf project accredited so that they could work with the large firms, such as M.W. Kellogg Ltd and others. We did a large amount of work on that issue. Nonetheless, it is a major disadvantage to having those firms locate here.

I go to challenges. One question that was asked was: why did we lose the fifth train? That is significant. I reiterate that this is an area in which we should have had comparative advantage. One hundred per cent of the engineering for the fourth train was undertaken locally, but now local contribution is down to five to 10 per cent.

A number of factors have been involved. First, it happened during the boom and there were cost and people pressures. Second, even though successive governments have focused on trying to develop Western Australia as an engineering design hub for both mining and oil and gas, the priority of governments has long been on steel manufacturing—that is, on the modulation and provision of fabrication services for local content. That is an appropriate area.

Successive governments have gone to a great deal of effort to make local firms more competitive. They have provided many hundreds of millions of dollars to the Henderson facility. They have encouraged local firms to adapt new technology and robotic welding and have assisted in the acquisition of overseas skilled labour. However, when the issue of the fifth train came about, the government's priority was on steel fabrication, rather than design. I argue that there should be a shift, although not everyone would agree with me. There are trade-offs.

One of the major challenges for government is that the percentage of local content in the larger projects has been declining. When the fourth train on the North West Shelf was built, 72 per cent of the total expenditure of the project was done locally. During the Pluto project, it declined to 50 per cent. It was mooted to be 66 per cent for the Gorgon project, but the evidence we have received indicates that it has declined to 50 per cent. Those are very large declines that involve huge amounts of money. Of course, the decline is even more significant when one considers steel fabrication. The report does not have data on this. However, conversations that I have had with people and anecdotal evidence suggest that there has been a large drop in local steel fabrication in the Gorgon and other projects.

I am not criticising that. The issue is fundamental. We have a hard time competing both with the costs and delivery methods of offshore operations. There have been significant improvements in modularisation and design and shipping of the designer projects that facilitate offshore construction. There have been huge improvements in the competitiveness of offshore facilities, particularly in Thailand, Indonesia and Vietnam, and there have been huge improvements in wages and the shortage of skilled workers. During the boom the books of some of our fabricators were full.

However, much of the work was done by 457 visa holders who were brought in from overseas. A decline in local content becomes a political issue for all governments. I read in a newspaper article that a recent contract worth between $200 million and $300 million was let for the Gorgon project.

It involved the set of projects in which we thought local firms would be most competitive. The previous government did a lot of work preparing local firms to be competitive in those projects. However, I was told clearly by some of the proponents of the team who did the bidding that they were at least 30 per cent off in their competitiveness.

The issue is that although there are projects in Western Australia and large numbers associated with them, local participation in those projects is declining. I fear that our local content in manufacturing metal fabrication will also decline. We need to get local value out of them. We must focus on shifting the areas in which we are internationally competitive, which, from the evidence I have received anecdotally and from the evidence received by the committee, is in the services area, which is our future.

What should we do? We have to be pragmatic. The committee did not address this in any great detail; therefore, I am expressing my own views.

Firstly, federal and state governments must work together. Most of the liquefied natural gas resources are owned and controlled by the commonwealth. This report is a discussion paper, not a full-blown inquiry, because the committee, on my interpretation of it, was of the conclusion that without the input of the commonwealth, very little could be effectively done about this issue. Federal involvement is vital.

Secondly, our various policies for facilitating local participation must undergo a fundamental shift away from metal fabrication, to services and upstream design. In reality, we have done that in certain areas of sub-sea, maintenance, and research and development, and firms such as Woodside and Chevron have invested in those areas. That must be augmented.

I return to the subject of future design. Even though there could easily be 11 to 15 trains put in place over the next decade in Western Australia, it will be difficult to attract a major contractor to Perth, and it will be very difficult to get those design teams to Western Australia to plan for the long term, but it should be a priority. We should also look at diversification of the work to other things such as sub-sea, for example.

There will be other changes in this industry. A large amount of the design work, even though its headquarters are in, let us say, Reading in the United Kingdom, is done in Singapore and Malaysia, and, increasingly, India; it is a globalised business. A lot of the add-on contracting is done in our region, and it is an area that may provide us with the potential to develop close links between firms in Western Australia and firms in Singapore and Malaysia in particular.

This industry has other real challenges. It is quite clear that a number of the major contractors have, for a variety of reasons, invested in floating platforms, and a large amount of the new projects—particularly the smaller, more isolated ones—will not touch Western Australian shores. There will be the capacity to have most of the engineering and design, and all of the fabrication, done offshore and then floated and anchored here. That is a big challenge, but it is where the market is going and we should ensure that Western Australia does not just accept it, as it could become a reality, but actually participate in the design and development of those trends. We have to accept the trends as they are.

In closing, I would like to thank very much the fellow members of the committee. I must admit that I, as the chairman, pushed this issue more than everyone else. The committee, however, went along with my whims, and I thank members from both parties for that.

I also thank Loraine Abernethie, who is the leader of this team and did most of the write-up. Although she is sociology qualified, she had a foray into the oil and gas industry some years ago and her expertise aided the write-up of this report significantly. I urge the government and others to read this report, because not only is this a political issue, it also deals with the core of the economic future of our state.