

## Foreign Affairs, Defence and Trade Legislation Committee

### Defence Amendment (Sovereign Naval Shipbuilding) Bill 2018

29 November 2018

Questions on notice.

ASC Q1

(pp2-3)

**Senator GALLACHER:** Can I ask: what's the eight per cent you can't do? Is it technical, patented—

**Mr Edwards:** Yes. There's certain equipment, for example, that we have to buy offshore. There are certain items, certain equipment that we don't make in Australia, which we rely on those overseas suppliers for. We don't have that ability.

**Senator GALLACHER:** Do you have a ready-to-hand example of that?

**Mr Edwards:** It might be some of the combat system—not combat system, my apologies; I'm talking about the platform—but some equipment for diesels, for example, where we would go to a supplier from Sweden where they manufacture their own.

**Senator GALLACHER:** They make iconic things, do they?

**Mr Edwards:** Sorry?

**Senator GALLACHER:** I've got no understanding of what we can't do. Is it that we can't make—

**Mr Edwards:** It would typically be an item where there isn't the quantity we require to make a sustainable industry link to that. It might be a particular submarine item from somewhere in Europe. My apologies; I can give you some examples on notice, if you would like.

#### ASC response:

ASC directly contracts offshore suppliers for some items of materiel, for example, for specialist advisory services at various times:

- Electric Boat Corporation of the USA, as ASC's and Defence's expert submarine technical capability partner;
- A Swiss consultant for expert diesel engine analysis and advice;
- AVL GmbH (Austria) for expert diesel engine engineering.

For specialist spare parts:

- Jeumont (France) for parts for Main Propulsion Motors;
- Baber Nichols (USA) for parts for Air Induction Turbines;
- Calzoni (Italy) for parts for submarine masts.

ENDS



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ASC Q2

(p3)

**Senator PATRICK:** So of those 2,600 suppliers—I make the point that it's not just a list of companies; there's a process you go through to make sure that a supplier is worthy of and capable of providing equipment to the Collins program, I presume.

**Mr Edwards:** Correct.

**Senator PATRICK:** Indeed, some of those suppliers had to have invested money to get to the point where you consider them to be reliable, capable suppliers. It's taking a long time—as you said, 10 years, a decade or more—to get to that point. Clearly investment through, effectively, government funding—it might be that the company does the investment, but somehow it's paid for by the taxpayer because it's for a defence program. Do you have any idea of the amount of money that's been spent by your organisation dealing with supply chains and all the infrastructure that you have, like quality standards that allow a supplier to come in, be checked off properly, QAed and stored in a system? That's got to be hugely expensive, one would imagine.

**Mr Edwards:** Yes, it is. It does take a long time. Yes, we have a lot of quality processes we require to prequalify suppliers. We regularly check with suppliers. It takes a long time to build that, and it comes at great cost and great penalty, but it's part of what we do to ensure submarines are obviously safe and that we have the right suppliers. I wouldn't like to speculate, today, on a number. I'm happy to take that on notice and provide you some size or context around that, but it is vast and it is a large exercise.

**Senator PATRICK:** Where I'm going is that Australia has invested in that, and you'd agree that it's the taxpayer, ultimately, who bears the cost of that. In essence, notwithstanding what you said about co-operating with Naval Group, for Naval Group to replicate all of that again, the taxpayer pays again for something that you have inherently got within your organisation, which actually is a government owned organisation.

ASC response:

Due to the time period and volume of information involved, it is not possible to calculate the value of the investments made into the submarine supply chain and infrastructure since the 1980s.

ASC's suppliers of submarine materiel deliver more than 40% of the value of submarine sustainment (excluding batteries, combat system and other Government Furnished Equipment). They also represented some 70% of the value of ASC's Collins design and construction project (inclusive of combat system), with ASC accounting for the remaining 30%. Many of their products and services are critical to the Collins Class Submarines.

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The direct investment of researching, qualifying and establishing such a supplier base is a cost in time and money in its own right. However, the learning curve involved in stabilising and maturing the supply chain, and the shipyard's associated logistics data and infrastructure, is also a significant investment.

Submarines are significant capital assets with their replacement value well over \$1B each. Building and maintaining them is a substantial industrial enterprise.

The true value of the investment is in operating a proven, mature system of suppliers and procurement and materiel management systems. The full value of this capability is not represented by their stand-alone value, but by their contribution to delivering submarines to a high quality, safely on time and to an affordable budget.

ENDS

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**ASC Q3**

(p4)

**Senator PATRICK:** I understand that. That's kind of helping Naval Group, but I'm talking about from a taxpayer's perspective. There's this huge investment that you've made in time—and time is money—that will have to be replicated again. So you can see why the parliament might be interested in how much of what you have gets transferred across to Naval Group; whether or not that's actually possible, noting you are actually a commercial entity; and whether or not there is a cost associated with that. I wonder if you can take that on notice, unless you have a ready answer.

**Mr Edwards:** I don't have a ready answer. We collaborate closely with the various members of the enterprise, but I'm happy to take that on notice.

**Senator PATRICK:** Yes. I'm imagining this would almost be a supplementary submission that looked at that, to explain to the committee: that's what we did; that's how much it cost; how do we make sure we don't have to repay that cost; what's the best proposition?

**Mr Edwards:** I'll take that on notice—

**Senator PATRICK:** Thank you.

**Mr Edwards:** and try to highlight the benefits it might provide.

**Senator PATRICK:** All right. Chair, do you want to give someone else an opportunity? I'm happy to come back.

**CHAIR:** You keep on. Your bill.

ASC response:

Please refer to our response to the previous question Q2.

ENDS



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ASC Q4

(p4)

**Senator PATRICK:** It's all happening in South Australia. You have a whole bunch of systems in place that would have cost money in terms of how you manage quality control, how you manage the progression of workflow from a refit perspective, how you manage personnel—a whole range of those things. They are the overheads and essential services that you have. I'm really interested in whether you could lay out what some of those things were and, once again, perhaps provide some cost to that? You can see where I'm going.

**Mr Edwards:** I can. Correct. We have a vast system that evolved originally from building on the experience of the people who were involved in the build process to now in sustainment. It involves everything from business systems, processes and controls to infrastructure—things like how we repair diesels and how we repair propulsion motors. There are special test facilities for that equipment which we had to establish in Australia because the skills were not available elsewhere in the world.

**Senator PATRICK:** Are the test facilities relevant to a Future Submarine?

**Mr Edwards:** Some of them may be; some of them may not be. It's highly likely that the Future Submarine will use newer technology and may not require some of those or it may require a different form of test. However, the skills involved and the people and the artisans who have developed that and provide that support have been developed, similarly, over 30 years.

**Senator PATRICK:** I wonder if it's possible to calculate the cost of that? That might be difficult, but, if you characterised how you do that so that we can see how the data was developed, that might be useful.

**Mr Edwards:** Again, I'm prepared to take on notice to try to look at the sort of investment and characterise the investment we've conducted in the last 30 years related to the systems we have.

**Senator PATRICK:** Not only would it be helpful for us in understanding it; I suspect it would be helpful for your company in being able to point out to the parliament and to ministers exactly what the cost is of not using what you have.

ASC response:

ASC operates a number of test facilities in support of Collins Class sustainment and upgrades. For example ASC's Diesel-Generator Test Facility at our Osborne shipyard is a land based facility for the purpose of testing submarine diesels and generators.

It was established at a cost of some \$3M at the time in 2014. In coming years, it could be used to test diesel generators for both the Future Submarines and the Collins Class.

ASC operates facilities including Non Destructive Test facilities and a Materials Testing Laboratory.

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Many others are specific to the Collins submarines such as: Propulsion Control Reference Facility in WA which provides a multi-purpose capability for software testing and certification, fault finding and diagnostics, modification, operator training and maintainer training; and the Submarine System Test and Software Support Facility in SA which is a land based reference system for the Integrated Ship Control Management and Monitoring System.

The common and enduring value is the know-how of ASC's personnel, those who were involved in designing and establishing the facilities and those who operate, maintain and upgrade them. The organisation, systems, data and procedures for deployment on the Collins Class program have been evolved and matured across decades of use.

The full value in these capabilities is not entirely represented by their stand-alone value but by their contribution to delivering submarines to a high quality, on time and to budget. Even a small delay in delivery of a submarine can incur significant costs.

ENDS



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ASC Q5

(p4)

**Senator PATRICK:** What about the future frigate? I don't know whether the contract has gone to BAE locally or whether it's gone to BAE in the UK.

**Mr Edwards:** We understand that the government has announced that the contract for the prime will ultimately be with ASC Shipbuilding as part of the BAE Australia group. From what I can see, I think it meets the intent of what you're considering here. But, again, I'm speculating in the absence of the detailed knowledge of how that transaction is finally going to be.

**Senator PATRICK:** You probably will know for the OPV because you are a partner in that arrangement.

**Mr Edwards:** The way the government has advised is that the OPV program itself now will be, obviously, prime contracted through Luerksen, but—

**Senator PATRICK:** GmbH or is there a Pty Ltd?

**Mr Edwards:** Again, I'm not sure. I can take that on notice. I would be speculating. But for the building of the ship in Australia the work is being done by ASC Pty Ltd, with the support now of ASC Shipbuilding into the future. So the building of the ship is being done by those Australian companies.

**Senator PATRICK:** Is any of that work being done in WA—the OPVs for ASC?

**Mr Edwards:** There are elements of shipbuilding at the moment as far as supply and cutting of steel, with Cimtec, who are a partner for the build of ship 3 through to the remainder of the class, in Western Australia.

They're providing support to the Luerksen team and to us in that. We have a close collaboration with them.

ASC response:

The prime contractor for the Offshore Patrol Vessel program is Luerksen Australia Pty Ltd.

ENDS



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ASC Q6

(p8)

**Senator PATRICK:** I had a constituent contact me and advise me that some of that work may be being offshored now—that some of that work may now go offshore, perhaps to the United States. Can you confirm that?

**Mr Edwards:** I'd like to take that question on notice to understand, if that's occurring, the reasons why. Submarine propellers, as no doubt you would know, are quite complicated and require different skills for different types of propeller. So I'd be speculating if I suggested what was happening there.

**Senator PATRICK:** But we have a capability here in respect of refurbishing those propellers?

**Mr Edwards:** We do.

**Senator PATRICK:** Can you describe what that capability involves in terms of people and specialist equipment?

**Mr Edwards:** We have some specialists CNC equipment and technicians, artisans and craftsmen—I would call them—who work that equipment, those CNC machines, and undertake refurbishments of a number of our propellers. That skill has been built over a number of years. Again, it's quite exacting and there's a lot of technical complexity to the work that they do, related to materials. I'd rather not say too much more about propellers because of the nature the sensitivity. But it certainly is another example of Australia's capability that has been developed on the Collins program.

ASC response:

The current generation of Collins Class submarine propellers are designed in the United States and also cast in the US.

ASC and Defence affected a best-for-enterprise plan to accelerate the roll-out schedule of these propellers.

A batch of six propellers was machined in parallel, three at ASC and three in the US.

ASC's task is now complete in relation to submarine propellers.

ENDS



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**ASC Q7**

(p8)

**Senator PATRICK:** Going back to my previous question, I'm interested to find out whether any capability or activity that was taking place using that specialist equipment and those specialist engineers either has been considered for offshoring or work now does go offshore that was previously done here?

**Mr Edwards:** If I could take that on notice.

**Senator PATRICK:** Okay. That's it for me.

ASC response:

Please refer to our response to the previous question Q6.

ENDS.