

## **Senate Economics References Committee**

### **Future of Naval Shipbuilding in Australia**

### **ANSWER TO QUESTION ON NOTICE**

#### **Department of Defence**

**Topic:** SERC - Future of Australia's Naval Shipbuilding Industry - Q7 - Tuning of Pump-Jet and Hull - The Committee

**Question reference number:** 7

**Senator:** Chris Ketter

**Type of question:** Written

**Date set by the committee for the return of answer:** 3 April 2018

#### **Question:**

7. In a 31 October 2017 ASPI interview (The Strategist Six: Greg Sammut) by Brendan Nicholson, Defence officials stated that the pump-jet would be "tuned" to the hull, and the hull "tuned" to the pump-jet. Mr Morrison's report suggests that if the aim of such tuning was a substantial improvement in low-speed efficiency, such a process would be quite major, and may still not be able to close the efficiency gap substantially at very low speeds.

- a. Was the need to "tune" the pump-jet made clear by DCNS in their proposal in the CEP?
- b. Was it proposed that this work would be undertaken in France, or in Australia?
- c. If in Australia, would the "Submarine Propulsion Energy Support and Integration Facility in Australia" (Paragraph 8.49 Defence White Paper 2013) be involved in this modification?
- d. What information was provided by DCNS in the CEP to satisfy Defence that the "tuning" would not impact the overall technical risk of the project adversely?
- e. Did the acoustic modelling of the pump-jet incorporate the full extent of the "tuning" or other modifications required to the pump-jet design?

#### **Answer:**

7a – 7e. The need to match the design of a pump-jet and the design of the submarine hull has always been understood by the Commonwealth. This will be an integral part of the design of the Future Submarine, which has commenced in France, and will not be done as a modification to the submarine. The projected performance offered by Naval Group was on the basis on having matched designs for the pump-jet and submarine hull.