## AGENCY/DEPARTMENT: ANSTO

**TOPIC:** OPAL Reactor

**REFERENCE:** Question on Notice (Hansard, 2 June 2014, page 11-12)

## QUESTION No.: BI-2

**Senator LUDLAM:** I certainly do not want to chew into the time for CSIRO too much. Dr Paterson, go through this: your budget papers say \$31.6 million to run the research reactor at full capacity. I should not take that to read that that is an increase in output or anything along those lines?

Dr Paterson: No. It is the re-baselining of the funding for consistent and ongoing operation.

Senator LUDLAM: When you say re-baselining, is that another way of saying 'increasing'?

**Dr Paterson:** No. The original baseline was set by the operations of the HIFAR reactor, which had different capacities and different scope. It was always intended that, once we had some operational experience, we would bring forward the funding envelope that is required to operate the reactor.

Senator LUDLAM: How much of an increase does that re-baselining represent?

**Dr Paterson:** In terms of an overall increase, I will provide that on notice, but the major drivers have been electricity cost and fuel cost.

**Senator LUDLAM:** Weren't we contracted with the United States government to provide fuel at a certain cost? How come that has gone up?

**Dr Paterson:** No, our fuel supply comes from France, and that is supplied on a commercial basis from a commercial company.

**Senator LUDLAM:** Alright. I will leave it there. Can you on notice break out the different components and disaggregate where those figures have come from if you could?

Dr Paterson: Yes.

## ANSWER

The funding received in the 2014-15 Federal Budget will ensure OPAL can continue operating for approximately 300 days per year (exceeding global best practice), producing lifesaving nuclear medicines for all Australians, providing 43 per cent of the world's irradiated silicon for use in high-tech applications such as fast trains and hybrid cars and providing neutrons to assist Australian researchers and industries in solving complex problems.

Australia's OPAL research reactor replaced the now-retired HIFAR reactor. OPAL is a significantly more modern, complex piece of landmark infrastructure which delivers far superior outcomes, and as such has significantly higher operating costs than those of HIFAR. For example, in 2005-06, HIFAR's last year of full operation, its operating costs were \$10.69 million.

In 2012-13, OPAL's operating costs were \$21.0 million (constant dollars). ANSTO's baseline appropriation has not been increased to reflect OPAL's increased operating costs; instead, they have been met through a series of budget measures, the last of which covered 2013-14.

There are three major components contributing to OPAL's increased operating expenses compared to the old HIFAR reactor:

- 1. *Rising electricity costs*: approximately \$10 million of the funds received will be used to help meet increasing electricity costs and OPAL's higher electrical consumption due to its multipurpose functionality and advanced safety systems.
- 2. *Increasing nuclear fuel costs:* \$6 million will help cover increases in the global price of nuclear fuel. ANSTO's nuclear fuel costs have increased on average 10.8% per annum since 2006.
- 3. *Maintaining staffing levels:* \$14 million will be used to continue funding 27 existing positions which are essential to the operation of OPAL due to its significantly more complex and integrated engineering design, increased regulatory compliance needs and greater production requirements.