Economics Legislation Committee
ANSWERS TO QUESTIONS ON NOTICE
Industry, Innovation, Science, Research and Tertiary Education Portfolio
Supplementary Budget Estimates Hearing 2012-13
17 October 2012

AGENCY/DEPARTMENT: AUSTRALIAN NUCLEAR SCIENCE AND TECHNOLOGY ORGANISATION (ANSTO)

TOPIC: Mo-99 facility – business plan and peer review

REFERENCE: Question on Notice (Hansard, 17 October 2012, pages 23-24)

QUESTION No.: SI-16

Senator LUDLAM: The reactor has only been up for a couple of years, so I am not certain why ANSTO is asking for another investment of $168 million in 2012. What is that actually for and why is it necessary so soon after the new reactor and the molycline has been stood up?
Dr Paterson: Firstly, just to clarify, the investments we are making is into core technologies. One is a production of mo-99 from irradiated target plates. There will be a small incremental investment in the process flows from the reactor, but that it not really where the bulk of this funding is going. The facility that we built when we initially established the capability to produce mo-99 using the alkaline process was always envisaged to be an interim step. It was retrofitted into an older facility and it allowed us to implement a technology that had been developed by our colleagues in Argentina. Therefore, the investment that we made in that initial facility was always expected to be replaced with an upgraded capability that would expand our capacity to supply both Australia and, indeed, the global community. When I joined ANSTO that project was called Mega-Moly. It was already on the books and had been discussed for a number of years by the board. At the time, as was alluded to in an early question that we were asked, there was a good deal of discussion about when we should make the follow-on investments. The follow-on investments, which were always envisaged, fit very, very well now with the timing of the shutdown of the Canadian research reactor. The Canadian government has announced over the last 12 to 15 months on a number of occasions that in October 2016, their supply, which is currently 40 per cent the global supply of this critical isotope, will be terminating. So we have really designed, in consultation with government over a very significant period, our project to be able to enter the market ahead of that step change in the availability of the isotope—.
Senator LUDLAM: Sorry Dr Paterson, we are a bit short of time. I will try to keep the questions short.
Senator Chris Evans: Can I just say quickly that cabinet made the decision on this investment based on a very strong business case and was supported by the central financial agencies on the basis that we think a very strong business case for the plant exists.
Senator LUDLAM: Was a cost-benefit analysis done?
Dr Paterson: The business case was independently reviewed by KPMG and they did a top-down and a bottom-up review. They consulted international experts in the field and the economics of this investment is absolutely sustainable in a fully market-oriented fashion.
Senator LUDLAM: But a formal cost-benefit analysis was not done?
Dr Paterson: The cost-benefit analysis was but one element of that.
Senator LUDLAM: Are the business plan and peer review both public documents?
Dr Paterson: Typically one would not provide such a detailed business plan as a public document because there are commercial implications.

Senator LUDLAM: So none of it can be put into the public domain?
Dr Paterson: I think that the high level capacity of the plant is certainly something that we have been able to talk about.
Senator Chris Evans: Perhaps the best response to that, Senator, is that we will take it on notice and see what can be provided to the committee without that going against that commercial-in-confidence.
Senator LUDLAM: That is useful. ----------

ANSWER

The Government's decision to invest $168 million in a nuclear medicine manufacturing facility at the Australian Nuclear Science and Technology Organisation (ANSTO) was based on detailed business planning which was independently verified by external consulting firm KPMG, who commented: "…management has completed a thorough and robust process in preparing the business case." The business case for ANSTO Nuclear Medicine considered a range of factors including:

- The importance of the nuclear medicine Molybdenum-99 (Mo-99), which patients in Australia and across the world will require to diagnose heart disease and a range of cancers;
- Looming global shortages of Mo-99 which are predicted by the OECD as a result of the closure of nuclear reactors across the world responsible for 70 per cent of international supply;
- The large and growing world demand for Molybdenum-99, as more countries develop modern medical systems. It is estimated that Molybdenum-99 is used in 45 million procedures worldwide every year. This analysis was based on a detailed review of industry information, supplemented by the OECD market reports and independent market analysis;
- A conservative pricing forecast for the Mo-99 global market;
- The ability of this project to recoup the initial capital investment;
- The ability of the Synroc plant to provide a viable, economic solution to Australia's legacy and domestic waste challenges; and
- The ability of the Australia to lead the world in nuclear non-proliferation. The world is asking for safe, low-enriched uranium based medicine as recognised by the fact that the US has put measures in place to favour Molybdenum-99 produced in low enriched uranium reactors, such as that made in Australia's OPAL reactor.