

# TOPIC 8 – ADDING VALUE TO SOUTH AUSTRALIAN RADIOACTIVE MINERALS

Thursday 15 October 2015  
Conference Room, Nuclear Fuel Cycle Royal Commission  
Level 5, 50 Grenfell Street, Adelaide SA 5000

## Professor Frank von Hippel, Princeton University (8.30am, by video-link)

Frank von Hippel is a theoretical physicist and Emeritus Professor of Public and International Affairs at Princeton University. He has worked on nuclear policy issues for over forty years. From 1993 to 1994, he was the Assistant Director for National Security in the White House Office of Science and Technology Policy. He holds a DPhil in Theoretical Physics from Oxford, 1962 and a BS from M.I.T., 1959. He was a founding Co-Chair of the International Panel on Fissile Materials and has written extensively on the technical basis for nuclear non-proliferation and disarmament initiatives and the future of nuclear energy.

### Topics to be addressed at this public session:

- ⊕ Markets for uranium, enrichment and reprocessing services
- ⊕ Non-proliferation risks associated with enrichment and reprocessing
- ⊕ Arrangements for the secure supply of nuclear fuels

## Mr James Voss, University College London (10am, by video-link)

James Voss holds qualifications in nuclear engineering from the University of Arizona. He has worked in a number of countries in areas including radioactive waste management, nuclear fuel storage, renewable energy and environmental sectors. Mr Voss lectures at multiple universities and has held leadership roles within a number of organisations concerned with the management of nuclear material, including Golder Associates and Pangea Resources Pty Ltd.

### Topics to be addressed at this public session:

- ⊕ Concept of nuclear fuel leasing and potential demand for those services
- ⊕ The international and commercial arrangements necessary to establish a fuel leasing operation

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### Dr Michael Goldsworthy, SILEX Systems Ltd (11.45am)

Silex Systems Ltd is an Australian public-listed company which invented and developed the disruptive laser enrichment technology known as Separation of Isotopes by Laser EXcitation (SILEX). Silex is continuing to support the commercialisation of SILEX technology for the global uranium enrichment industry in conjunction with exclusive licensee, US-based GE-Hitachi Global Laser Enrichment. Dr Goldsworthy is the founder and Managing Director/CEO of Silex. He received his PhD in Physics from The University of New South Wales in 1988. Apart from the nuclear power industry, Dr Goldsworthy has also had extensive experience in the semiconductor and solar power industries through the business activities of former Silex subsidiaries Translucent Inc (in the US) and Solar Systems (both recently divested).

#### Topics to be addressed at this public session:

- ⊕ Laser enrichment technology development
- ⊕ Potential for commerciality of laser enrichment technology in the long term
- ⊕ Anticipated opportunities and workforce requirements to establish and operate a laser enrichment plant

### Dr Patrick Upson, formerly of URENCO Group (3pm, by video-link)

The URENCO Group is a nuclear fuel company operating uranium enrichment plants in Germany, the Netherlands, the US and UK. It was established in 1970 once the Treaty of Almelo (signed by the German, Dutch and UK governments) entered into force. A separate treaty (the Treaty of Washington) was subsequently executed between those governments to allow for the establishment of URENCO enrichment plants in the US. Dr Upson was a senior Executive in the International Nuclear Industry for many years up to 2010, serving in the URENCO Group for 25 years. He led the project to license the technology for URENCO in the US. He is now an independent nuclear consultant.

#### Topics to be addressed at this public session:

- ⊕ Practical arrangements required to undertake 'front-end' fuel processing services
- ⊕ The potential for entry into the uranium enrichment market