

# ASX ANNOUNCEMENT

21 June 2011

URANIUM EQUITIES LIMITED ACN 009 799 553



URANIUM  
EQUITIES

The Company Announcement Officer  
Australian Securities Exchange Ltd  
via electronic lodgement

## Cameco Invests a Further US\$5M in the PhosEnergy Process for Uranium Recovery

*Third stage investment underpins planned operation of Demonstration Plant in the US*

### Highlights:

- Cameco invests third tranche investment of US\$5M for further development of the PhosEnergy Process.
- Demonstration Plant construction completed and undergoing final commissioning.

Uranium Equities Limited (ASX: UEQ) is pleased to advise that leading international uranium producer, Cameco Corporation ("Cameco"), has made a further investment of US\$5 million in the PhosEnergy Process being developed with Uranium Equities for the recovery of uranium as a by-product of phosphate fertiliser production.

The third stage investment, to be used to further the jointly held technology, brings Cameco's total investment in the PhosEnergy Process to US\$12.5 million and represents a further strong endorsement of the potential of the Process.

Cameco can elect to invest up to US\$16.5 million in the continued development and commercialisation of the PhosEnergy Process. If Cameco invests the final US\$4 million, the ownership of the technology related to the PhosEnergy Process will be:

Cameco	63%
UEQ	27%
Original developers	10%

If Cameco earns its interest, it has agreed to provide funding for a minimum of 50% of UEQ's portion of capital expenditure, under terms to be agreed, for the construction of the first commercial plant, repayable out of earnings.

The PhosEnergy Process is a patented "bolt-on" process to recover U<sub>3</sub>O<sub>8</sub> as a by-product at existing phosphate production facilities. UEQ, through USA registered Urtek LLC ("Urtek"), has undertaken the development of the technology in conjunction with the Australian Nuclear Science and Technology Organisation (ANSTO) and a major US-based phosphate producer.

PhosEnergy applies conventional technologies in an innovative manner to achieve low operating costs for uranium production (estimated at US\$20-25/lb<sup>(1)</sup>) and high uranium recoveries (estimated at 92%) with improved environmental outcomes and reduced waste.

### Our Strengths

- Breakthrough PhosEnergy Process
- Nabarlek Project – A rare investment opportunity
- Multiple near term growth opportunities

#### HEAD OFFICE

Level 5  
29 King William Street  
Adelaide, SA 5000  
T: +61 8 8110 0700  
F: +61 8 8110 0777  
E: reception@uel.com.au

#### PERTH OFFICE

Level 2, 1292 Hay Street  
West Perth, WA 6005  
GPO Box 2890  
Perth, WA 6001  
T: +61 8 9322 3990  
F: +61 8 9322 5800

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Cameco is one of the world's largest uranium producers, accounting for about 16% of the world's production.

## Business and Technology Development

The Cameco investment will be applied towards the planned operation of a Demonstration Plant at a US-based fertiliser producer and an associated Pre Feasibility Study (PFS) on the PhosEnergy Process.

Design and construction of the fully integrated and process controlled Demonstration Plant in Adelaide is complete. It is now undergoing final commissioning before being shipped to the USA.

The Demonstration Plant is planned to operate for 5-6 months at a site in the US commencing in the second half of this year and will provide cost and design data to enable the construction of a full-scale commercial facility. A PFS is also planned to be completed in parallel.

This first-class asset has been constructed to international standards and can easily be transported to, and integrated into, phosphate fertilizer facilities around the world. It encompasses all of the key aspects of the PhosEnergy process within two 40-foot shipping containers (Figure 1).



Figure 1 – PhosEnergy Process Demonstration Plant

Bryn Jones, Managing Director of UEQ said *"We are pleased that Cameco is to continue its financial, technical and corporate development support of the PhosEnergy Process."*

*"The additional funding will underpin the commissioning and planned operation of a state-of-the-art Demonstration Plant at a US-based fertiliser producer which is integral to the completion of a Pre-Feasibility Study on the PhosEnergy Process."*

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*"Cameco has already invested over US\$12 million in the development and commercialisation of this exciting process, and this latest investment represents a strong endorsement of the potential of PhosEnergy and the opportunities which this technology can unlock," he added.*

A handwritten signature in black ink, appearing to read "Bryn Jones".

Bryn Jones  
Managing Director  
Ph +61 (0) 412 577 406

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<sup>(1)</sup> Cost estimate is based on a 1 million tonne per annum P<sub>2</sub>O<sub>5</sub> phosphate production facility operating in the USA and incorporates a significant contingency of 40%

## About Uranium Equities

Uranium Equities Limited (UEQ) has two main areas of focus: The development of the **PhosEnergy Process**; and exploration activities directed at a small core of high quality exploration assets which include the key **Nabarlek Project**.

The PhosEnergy Process is an innovative patented process for the extraction of uranium as a by-product from phosphate in the production of phosphate based fertilisers.

The global annual production potential of uranium from the phosphate industry is in the order of 20 Mlbs U<sub>3</sub>O<sub>8</sub>. This quantity of uranium is mined in phosphate ores but not recovered annually on a worldwide basis. The major phosphate based fertiliser producers are located in Northern Africa, North America and Asia.

The PhosEnergy Process has been proven to pilot scale with results establishing a robust process capable of achieving high levels of uranium recovery at the lower end of the cost curve.

The Nabarlek Project provides a rare near mine exploration opportunity surrounding the historic Nabarlek Uranium Deposit (24 Mlbs @ 1.84% U<sub>3</sub>O<sub>8</sub>). The deposit lies within an extensive uranium mineral system which extends over more than 50 square kilometres within the Mineral Lease and the surrounding tenements. The mineral system which contains widespread anomalous uranium geochemistry and ore grade mineralisation at several locations remains largely untested.