

# ASX ANNOUNCEMENT

29 April 2010

URANIUM EQUITIES LIMITED ACN 009 799 553



URANIUM  
EQUITIES

The Company Announcement Officer  
Australian Securities Exchange Ltd  
via electronic lodgement

## PhosEnergy Process - Update

### Highlights

- Successful preliminary testing on phosphate streams from three additional fertilizer plants.
- New process developments have been patented that potentially allow for significant improvements in capital and operating costs.

### Recent Developments

As previously advised development of the PhosEnergy Process has progressed through pilot plant scale at a significant rate at a US-based phosphoric acid facility which has confirmed the effectiveness of the Process in the extraction of uranium from phosphoric acid streams. Operating cost estimates based on the pilot plant operation results indicate that, with contingency<sup>1</sup>, the PhosEnergy Process is capable of producing uranium at operating costs in the order of US\$25-\$30/lb with over 90% uranium recovery.

Testing of phosphate streams from three different overseas fertilizer facilities has supported the robust and flexible nature of the PhosEnergy Process through confirmation of the cost and operating assumptions used in UEQ's process model. The testing was conducted at both ANSTO (Australian Nuclear Science and technology Organisation) and at Urtek's own laboratory in Adelaide.

Negotiations are underway with a number of fertilizer facility operators to further develop the process on their sites. Upon agreement Urtek will commence construction of an on-site demonstration facility.

An additional patent has been lodged for significant improvements in the process. These improvements have the potential to significantly decrease estimates on both capital and operating costs for the extraction of uranium from phosphoric acid.

### The Process

Uranium Equities, through USA registered Urtek LLC ("Urtek"), has undertaken the development of new technology for the extraction of uranium from phosphoric acid streams produced in the production of phosphate based fertilisers ("the PhosEnergy Process"). Cameco are funding the ongoing development of the PhosEnergy Project.

<sup>1</sup> Operating cost contingency of 35% has been used. Cost estimates were for production in central Florida, USA.

### 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

# ASX ANNOUNCEMENT

URANIUM EQUITIES LIMITED ACN 009 799 553



Yours faithfully,

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

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

---

## 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  $U_3O_8$ . 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%  $U_3O_8$ ). 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.