

## AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

1 May 2015

### **AUSTRALIA'S EDEN A STEP CLOSER TO U.S APPROVALS FOR CARBON-BASED CONCRETE USE IN MAJOR INFRASTRUCTURE**

Australian technologist, Perth-based Eden Energy Limited (ASX: "EDE") is pleased to announce that new results from testing in the United States of the Company's unique carbon-strengthened concrete additive, have moved the Company one step closer to securing key government approvals for use of its additive – known as EdenCrete – in major infrastructure.

The latest tests – over 56 days – are the longest yet in the United States for Eden's EdenCrete<sub>500</sub> additive – based around carbon nanotubes being added to concrete to significantly add to its strength and performance. It also delivers emission improvements compared to negative Greenhouse Gas impacts from conventional concrete manufacture.

Eden Executive Chairman, Mr Greg Solomon, said today the latest strong results from the eight-week test program in the US meant EdenCrete could now move to finalise several smaller commercial projects in the US state of Colorado over the next two months, in conjunction with prominent Colorado-based concrete manufacturer, Metro Mix.

"Using concrete enriched with EdenCrete, achieving these commercial test points will deliver the required precursors to Eden to commence the move to formal approvals by the Colorado Department of Transport to have EdenCrete approved for use in concrete to be used for infrastructure projects in Colorado, and potentially, the then much wider US national transport infrastructure markets," Mr Solomon said.

"Obviously, the new test results and our ability to now move to small commercial project test outcomes, is a breakthrough. It sets the stage for the first time for real commercial progress to establish we think by year's end if not sooner, a number of strategic agreements that will provide Eden leverage into the massive United States infrastructure market," Mr Solomon said.

"We can announce today that already, preliminary discussions have commenced in the US with a number of relevant parties on a planned expansion of Eden's production capacity of EdenCrete.

"It is our understanding, from initial talks by us in the US over recent weeks with potential US stakeholders, that demand for EdenCrete can increase significantly if it is approved for use in key infrastructure projects – not just commercial works programs.

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“The direction of our current US negotiations is now to push those towards ensuring Eden in conjunction with its possible joint venture and preferred partners, lock in sufficient production capability within the next 12-18 months to secure a significant first mover advantage in what is a massive infrastructure market in the United States, let alone the subsequent potential in other international jurisdictions.

## **56 day results from first US field trials**

The latest results are from 56 days of laboratory tests conducted in conjunction with the first field trials in the United States of concrete made using EdenCrete<sub>500</sub>, one of Eden’s carbon-enriched concrete additives.

After adjusting for the additional water introduced into the mix with the addition of the EdenCrete<sub>500</sub>, compared with 56 day-old control cylinders of the same mix and age but which had no added EdenCrete<sub>500</sub>, the 56 day-old concrete cylinders to which EdenCrete<sub>500</sub> was added achieved the following improvements:

- **48% increase in tensile strength after 56 days (compared with a 45% increase after 28 days)**
- **29 % increase in compressive strength after 56 days (compared with a 17% increase after 28 days), and**
- **A 55% reduction (Improvement) in permeability after 56 days (compared with a 53% reduction after 28 days)**

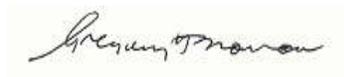
Mr Solomon said data obtained at 28 days and 56 days is conventionally used in defining most concrete performance standards.

“These highly encouraging results confirm a wide range of potential commercial applications for EdenCrete for buildings and importantly, infrastructure,” he said.

“These possible applications include uses that require one or more of the benefits that EdenCrete delivers, including:

- Applications such as load bearing beams and suspended slabs where tensile or flexural strength is required;
- Applications in salt prone environments such as marine and coastal applications and also highways, bridges etc where salt is applied after heavy snowfalls, where low permeability in the concrete is required to reduce the rate of corrosion of the steel reinforcing; and
- Applications such as high rise construction, columns and high impact/ high abrasion surfaces which require high compressive strength.”

EdenCrete™ last year won the Australian Civil Contractors Federation’s 2014 Environment Award because its performance gains delivered a raft of energy saving and environmentally enhancing factors during both manufacture and in-situ use.



**Gregory H. Solomon**  
Executive Chairman