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## **AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT**

**13 June 2019**

### **EdenCrete® - Global Sales and Marketing Update**

Since Eden Innovations Ltd (ASX:EDE) (Eden) commenced commercialisation and field testing of EdenCrete® in 2015, significant progress has been made, the range of products has been expanded, and interest in these products continues to grow around the world.

#### **USA**

In the USA, sales to repeat customers are occurring regularly in a number of States for a range of projects including building construction and maintenance, driveways, industrial flooring, shotcrete applications, and bridge and highway repairs and construction.

#### **INDUSTRIAL AND COMERCIAL APPLICATIONS**

A key focus area, initially mainly targeting Georgia, Colorado and surrounding States, has been industrial business applications including manufacturing and warehouse flooring, and surrounding hard stand areas.

Considerable interest in the broad range of performance benefits and project lifecycle cost benefits delivered by EdenCrete® has been shown from a range of general contractors, architects and engineers, and ready mix suppliers.

Additionally, for over two years, Eden has been developing its EdenCrete®Pz product for use in pozzolanic concrete mixes. After many successful laboratory trials, Eden is hopeful that the encouraging results currently being produced in a comprehensive field trial by a New York based ready mix supplier, will, in the near future, lead to the regular use of this EdenCrete® product in a range of commercial and industrial applications.

Although the rate of penetration into the industrial and commercial markets has not been as rapid as Eden would have hoped, it has, nevertheless, been growing steadily, and the recent significant increase in interest is expected to translate in the reasonably near term into a growing number of projects that incorporate EdenCrete® in the concrete mix designs.

#### **INFRASTRUCTURE**

In various States of the U.S., interest in using EdenCrete® in concrete for a range of infrastructure applications continues to grow.

## **Georgia**

In addition to EdenCrete® being included in the 24 hour concrete repair mix specifications of Georgia Department of Transportation (GDOT) (which results in EdenCrete® being in all new State funded repair projects), it has also been successfully used in its first joint Federal Highway Administration (FHWA)/ GDOT funded repair project in Georgia. The second Federally funded project has been awarded and Eden understands that EdenCrete® is likely to be used in this project which is expected to commence in early September 2019.

Preliminary steps are also underway to have EdenCrete® added to the GDOT Qualified Products List for new concrete pavements, following the successful completion of a 12 month field trial, and for use in a GDOT bridge trial.

The Metropolitan Atlanta Rapid Transit Authority (MARTA) which published a joint white paper with Eden in 2018 detailing the strong performance of EdenCrete® over a two year field trial at the Brady Mobility Facility in Atlanta, also remains a high priority target for use of EdenCrete® products in future infrastructure projects.

## **Colorado**

Since 2016, EdenCrete® has been, and is continuing to be, trialled for a number of infrastructure applications in Colorado, by various Government bodies. These include the Colorado Department of Transportation (CODOT), the Denver Public Works, and the Bureau of Reclamation, which between them have trialled EdenCrete® in both ready mix concrete and shotcrete, on or for use in State and Federal highways, roads, bridges, tunnels, and dams, and to date it has also been used commercially in a number of projects.

Continued growth in both the number of repeat orders and the range of applications for which EdenCrete® may be used in infrastructure projects in Colorado, is expected as the results of from the various long term field trials that are underway (some of which have been running for more than 2 years) are completed.

Additionally, this anticipated increase in the use of EdenCrete® in infrastructure projects will also be assisted by the increasing number of Colorado based ready mix and shotcrete suppliers that already have standard commercial concrete mixes that include EdenCrete®, as well as the growing number of contractors who have successfully used EdenCrete® in projects.

## **Texas**

Eden has been continuing to work with the large prestressed bridge beam manufacturer in Texas that, until earlier this year, had used EdenCrete® in highway bridge beams since 2017, and has developed two new and more cost effective concrete mix designs for use in prestressed highway bridge beams. It is hoped that approval of these new concrete mix designs by Texas Department of Transportation (TXDOT) will be completed in the near

future, and will then result in a resumption of the regular use of EdenCrete® in the production of the large prestressed concrete beams.

### **Other States in the USA**

EdenCrete® is currently being trialled in concrete used in bridge repairs with the Departments of Transportation in two other States (Virginia and North Carolina), and is also being trialled in concrete mixes for use on roads in Idaho. Additionally, with the NTPEP trials of EdenCrete® nearing completion (after a delay with some of the testing that was undertaken), this will open up most of the remaining States for having EdenCrete® added to their Approved (or Qualified) Product lists, thereby opening the possibility of EdenCrete® being used in concrete for their roads and bridges.

## **OTHER COUNTRIES**

### **Australia and New Zealand**

EdenCrete® is currently being tested and marketed in Australia and New Zealand by Parchem Construction Supplies Pty Ltd, a wholly owned subsidiary of DuluxGroup. Trials for or with a number of companies that operate in the industrial and infrastructure markets, are underway or scheduled, and over the next 6 – 12 months it is expected that the value of Australian and New Zealand sales will grow significantly.

### **South Korea**

Discussions are continuing with several groups in Korea that could potentially be suitable EdenCrete® distributors in South Korea. Independent university laboratory testing of these products with various Korean cements produced encouraging results and this could be a significant future market for EdenCrete® products.

### **Europe and the Middle East**

Trials are underway, or are scheduled, with two groups in Europe and a third group in the Middle East, in neither of which markets is EdenCrete® currently being sold. Each of these groups approached Eden and each has the potential to become a significant EdenCrete® customer. One group is a large construction company and the others market or use concrete additives. Eden has successfully completed preliminary testing of cements supplied by two of these groups, with both tests indicating compatibility with the EdenCrete® products.

It is hoped that progress in further trials and discussions will result, in the reasonably near term, in an ongoing commercial relationship with one or more of these groups.

### **India**

The concrete market in India, for both industrial and infrastructure applications, whilst already being large by global standards, is still growing rapidly. With the election

commitment to allocate US\$1.2 trillion towards infrastructure by recently re-elected Prime Minister Modi, India is a high priority target for EdenCrete®.

Relevantly, during the past four years, the Indian Federal Minister for Transport and Roads (and who was re-appointed to the same portfolio after the recent election), is reported to have driven an increase in the rate at which new Federal highways and roads were built (including a significant amount built using concrete), from two kilometres per day to thirty kilometres per day, and he has recently indicated he would like to double that rate to sixty kilometres per day during the next four years.

Further, Eden recently tested some concrete mixes made with Indian cement and Indian flyash and found them to be suitably responsive to EdenCrete®. In particular the flyash, which is produced as a very low value by-product by Indian coal fired power stations burning Indian coal, was highly responsive to EdenCrete®Pz.

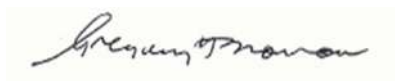
In consequence, it is hoped that the addition of EdenCrete®Pz may enable the percentage of very low cost flyash that is used in concrete mixes, to be increased, thereby potentially reducing the cost of the concrete and also reducing its Greenhouse Gas footprint due to the flyash itself being a waste by-product.

## Conclusion

Although the commercial rollout of EdenCrete® both in the USA and elsewhere to date has not been as rapid as originally anticipated, nevertheless progress has been steady and continues, and as more commercial projects take place, the growth rate in sales is anticipated to increase significantly.

### **EdenCrete® Background**

*EdenCrete® is Eden's 100% owned, proprietary carbon-strengthened concrete additive, one of the primary target markets for which is improving the performance of concrete used in the construction and maintenance of concrete roads, bridges and other infrastructure. Additionally, it has potential for use in a range of other concrete applications including high-rise building construction, marine and coastal applications, water storage and pipelines, and pre-fabricated concrete structures and products.*



**Gregory H. Solomon**  
Executive Chairman