

ACN 009 253 187

# AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

# 19 JUNE 2020

# **GLOBAL MARKET UPDATE**

Please see attached an ASX Announcement by Eden Innovations Ltd (ASX: EDE) for further details.

# **Background**

Tasman through its wholly owned subsidiary, Noble Energy Pty Ltd, holds 624,634,707 fully paid shares in Eden representing 36.24% of the total issued capital of Eden Innovations Ltd and 14,814,815 EDEOB options (representing 21.26% of the issued EDEOB options).





ACN 109 200 900

# AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT 19 June 2020

# **Global Market Update**

In spite of global commercial activity having slowed significantly (and in some countries having virtually stopped) during the past five months due to the COVID-19 pandemic and consequential government lockdowns around the world, nevertheless the Eden Group has continued to make good progress with the sales and marketing of the EdenCrete® range of products, the OptiBlend® dual fuel systems and EdenPlast®.

A summary of recent global sales and market progress is set out below.

# **USA**

# **GEORGIA**

#### **GDOT/FHWA Projects**

- GDOT Fiscal Year 2020-21 (1 July 2020 30 June 2021)
  - GDOT Funded Repairs Budget US\$9,463,820
  - Estimated value of EdenCrete required- \$237,500
- FHWA/GDOT funded project for 2020-21 (funded & approved for construction)
  - o 4.96 miles PCC I-75 CR 2993/Walt Stephens Rd. to SR 54
  - Contract Budget: US\$12.5 million- approx.7000 cubic yards (CY) of concrete
  - Anticipated EdenCrete® requirement 14,000 gals US\$350,000
  - o Proposed Letting Date: July 17, 2020

## **Non-DOT/Private Sector Opportunities**

- Liquid Carbon Fiber Mixes (EdenCrete® marketing initiative)
  - 5 residential/ commercial concrete contractors interested
  - 2 trials approved with two Ready Mix companies
  - 3 Ready Mix companies developing or selling proprietary EdenCrete® mixes
- Marine Concrete Mix Development
  - Pre-cast company planning trials for reduction in chloride permeability, comparing EdenCrete® with stainless steel for corrosion resistance benefits.
  - Cost variation: EdenCrete® US \$48/CY vs Stainless Steel US\$180/CY
- Georgia Ports Authority (GPA)
  - EC named in first GPA project (500 CY of concrete) date not yet determined.
     This followed successful trials in February 2020.
  - Further trials planned, including chloride permeability, ASR mitigation, freeze/thaw protection, chemical scaling resistance and shrinkage reduction.

# Warehouse Projects in Savannah area

- o Exposure of footings/slabs to high sulfate soils creating warranty issues.
- EdenCrete® to be trialled as a solution.
- Significant potential for substantial sales if trials are successful, as much of the land around Savannah has high sulfate soils and with the Port of Savannah, the third busiest container port in the US, undertaking a huge expansion programme, a large amount of additional warehousing is required to be built.

#### **COLORADO**

# • Denver Ready Mix Sales

- Tanks and dispensing systems installed into 2 plants for the same ready mix operator, including one plant with large concrete volume output.
- 4 storage/ dispensing systems now installed with same operator.
- Another ready mix operator also has EdenCrete® dispensing units installed in 4 plants and a second company has two such plants.
- o Additional Denver ready mix plants are expected as customers over next year.
- Some contractors are now specifying EC in their concrete.

# • Warehouse Slab

Forthcoming project with repeat customer – needs US\$16,000 of EdenCrete®.

#### **SOUTH CAROLINA**

# Warehouse Projects

o Further warehouse projects are emerging, including for repeat customers

# Septic Station

 EdenCrete® specified in a small, forthcoming project. This is the first project using EdenCrete® for

# **TEXAS**

# Texas DOT Opportunities

- Discussions with two shotcrete operators for testing for DOT shotcrete applications.
- TXDOT advised that pump-ability issues with shotcrete made with manufactured sand are being encountered. Once initial field trials are completed, field demonstrations of the superior pump-ability that EdenCrete® delivers will be undertaken with other shotcrete operators.
- A precast company that two years ago used EdenCrete® in TXDOT bridge beams, advised it has been developing a new concrete mix and indicated when this process is finished they would look to incorporate EdenCrete® in the mix.

#### Texas Commercial Opportunities

- Testing underway with a ready mix company that has achieved encouraging early strength results in a proprietary mix.
- Another ready mix operator also looking at similar trials.
- Testing by another company planned when COVID-19 restrictions permit, for use of EdenCrete® in grouts, mortar and 3D concrete printing.
- o Field trials being arranged by a large engineering group involving polished concrete school classroom floors that are prone to cracking.
- Following successful presentations to several general contractors in the Dallas area, field trials are to be scheduled when suitable.

# **NEW YORK**

#### United Transit

United Transit, a ready mix supplier for low-rise and mid-rise buildings, that has
its proprietary EdenCrete® mix, has used its first order of EdenCrete® but resupply has not been possible due to COVID -19 restrictions. Once these
restrictions are eased, a second delivery of EdenCrete® will be made.

#### **MASSACHEUSETTS**

# • High Strength Mix Development

- o Preliminary trials undertaken by, and follow-up discussions with, a ready mix company planning to develop a proprietary high strength concrete mix.
- o Trials in the operator's laboratory delayed due to COVID 19 restrictions.

# **ILLINOIS**

# Successful Pump-ability Trials

- Early in March 2020 a ready-mix operator that has operations in three Mid-West States, completed encouraging preliminary tests on a high-rise project in Chicago, testing the comparative vertical pump-ability of EdenCrete® concrete.
- EdenCrete® enabled a very low slump, very high strength concrete mix to be pumped significantly higher than could be achieved with the identical mix without EdenCrete® added. Further trials were immediately planned.
- Three days after this first trial, COVID-19 lockdown restrictions were imposed in Chicago and further testing has not yet been possible, but is intended to commence as soon as these restrictions are lifted.

#### OHIO

# A Number of Successful Trials for High Early Strength and Enhanced Durability

- Several successful recent trials were conducted in Ohio with a large ready mix operator that has developed a liquid carbon fibre mix and another mix for enhanced durability and high early strength for Ohio DOT applications.
- The first trial, with a concrete contractor on a driveway using the liquid carbon fibre mix, delivered enhanced finish-ability and led to the concrete contractor immediately ordering the same mix the next day for a second driveway project.
- o A similar successful trial on a driveway was conducted by another contractor.
- A mid-sized commercial and residential concrete contractor also trialled the same mix on an interior floor in an animal shelter, and the enhanced performance of the mix, resulted in this contractor also placing an order for the same mix the following day on an interior slab.
- A different mix, developed for ODOT projects for high early strength, full depth slab replacements was trialled on a 9.5 CY full depth slab replacement for a local municipality. All parties were impressed with the finish-ability of the mix, and the durability of concrete will now be monitored over the winter and compared with the performance of a standard ODOT mix. It is intended to submit this EdenCrete® enhanced mix to ODOT for approval.

## **MICHIGAN**

# Ready Mix Operator - for MDOT Applications and Warehouse Floors

 Preliminary laboratory testing completed and further testing underway in Colorado. Once completed, testing will be repeated in the operator's laboratory.

# **MISSISSIPPI**

## Precast Company Trials

- o Preliminary trials completed and positive results achieved.
- Contract discussions have commenced.
- If positive results are achieved from further testing by external laboratory, sales anticipated within 1-2 months

# **NORTH CAROLINA**

# Improved Durability and Pump-ability

 Trials are presently being arranged with 3- 4 contractors who have issues with poor durability and/or pump-ability. It is anticipated these trials should be completed by mid-July 2020.

# INDIA

# First EdenCrete® Commercial Order Anticipated

 Eden has been advised by the large construction company with which Eden has been developing a range of EdenCretePz® concrete mixes with high fly ash content, that it intends to place its first order for EdenCretePz® as soon as operational difficulties due to COVID-19 ease.

# • Nigeria – First OptiBlend Sale

 Eden India secured it first OptiBlend order from Nigeria. The order is worth US\$127,571 (A\$191,250).

# **ISRAEL**

#### EdenCrete® Products

 A diversified Israeli company, that runs several ready mix plants has been undertaking over the past four months repeated trials of EdenCrete® products for a range of applications and is achieving encouraging results.

#### EdenPlast®

 The same company has also developed interest in Israel for EdenPlast® and discussions have commenced.

# **EUROPE**

#### Trials of EdenCrete® Products

- Extensive trials of EdenCrete® by a large European construction company commenced in mid-2019 and were scheduled to be completed by April 2020.
- However due to COVID-19, the trials remain shut down after almost 5 months and are now not anticipated to be completed until late in 2020.

# **SOUTH KOREA**

# • Trials of EdenCrete® Products

 Trials of EdenCrete® by a number of South Korean companies have taken place in spite of some difficulties due to COVID-19. Some of these trials are still ongoing. To date, whilst some of the results have been encouraging, no sales have yet been achieved.

# **AUSTRALIA**

#### EdenCrete® Products

- After extensive communications over many months, NICNAS, the Australian Government body that assesses chemical products that are proposed to be manufactured in, or imported into, Australia has advised that it considers that it has received sufficient information to enable it to commence the formal assessment of the EdenCrete® products that Parchem Industrial Products, the Australian and New Zealand distributor of EdenCrete®, wishes to import.
- This assessment process is likely to be completed in 90 days, unless NICNAS should require additional information.
- o If approval from NICNAS is received, it will open the way for Parchem to import EdenCrete® Products into Australia for sale.
- A number of successful trials by potential Australian customers have been carried out and are expected will lead to sales when the products become available in Australia.

# **JAPAN**

#### EdenPlast®

 A Japanese plastics company has expressed interesting in testing EdenPlast® and arrangements are presently being made to develop a concentrated master match for testing by the Japanese company.

# **SUMMARY**

Despite the very difficult global commercial and social conditions that have been experienced over the past 5 months as a consequence of the COVID-19 pandemic and the restrictions that have been imposed by governments around the world to manage the risks, Eden has continued to make strong progress with the sales and marketing of its products around the world, and is well placed to see a significant growth in sales when the current conditions improve.

#### **BACKGROUND**

EdenCrete® is Eden's 100% owned, proprietary carbon-strengthened concrete additive that enhances a wide range of performance characteristics of the concrete including compressive strength, flexural strength, tensile strength, abrasion resistance, reduced permeability, increased modulus of elasticity, and reduced shrinkage, delivering stronger, tougher, more durable and longer lasting concrete.

One of the primary target markets for EdenCrete® is improving the performance of concrete used in the construction and maintenance of concrete roads, bridges and other infrastructure, particularly where it is subject to heavy wear, freeze/thaw weather conditions and/or high levels of added salt. Additionally, it has potential for use in most other concrete applications including high-rise building construction, marine and coastal applications, water storage and pipelines, hardstand areas, warehouses, shotcrete applications and pre-stressed and pre-cast concrete structures and products.



# **Gregory H. Solomon** Executive Chairman

This announcement was authorised by the above signatory. For further information please contact Aaron Gates on +61 8 9282 5889.