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AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT

9 December 2021

INDIA - Second EdenCrete®Pz Order for Approx. A\$92,000

HIGHLIGHTS

- **EdenCrete®Pz worth approximately A\$92,000 ordered by Godrej Construction**
- **This second order is six times larger than the initial order in 2020**
- **It follows the successful development over the past year of new Godrej concrete mixes incorporating high percentages of fly ash (in substitution for Portland cement), for use in several cities in Maharashtra with a combined total population of over 50 million people**
- **The added EdenCrete®Pz enables these new mixes to deliver stronger, cheaper concrete with far lower CO₂ footprints**

DETAILS

Eden innovations (India) Pvt Limited, the wholly owned subsidiary of Eden Innovations Ltd (Eden) (ASX: EDE), has received its second purchase order from Godrej Construction, the construction division of Godrej & Boyce Manufacturing Co. Ltd ("Godrej"), to supply it with approximately A\$92,000 worth of EdenCrete®Pz for use in its ready-mix concrete operation in several cities (including Mumbai and Pune) in the state of Maharashtra. The initial order was received in August 2020 (see Eden's ASX announcement of 1 September 2020).

This second, six times larger, order follows the successful completion of a significant testing and development programme conducted by Godrej Construction over the past year using standard concrete mixes from several cities where it operates, that, with the addition of only modest dosages of EdenCrete® Pz, were able to incorporate far higher percentages of fly ash in place of ordinary Portland cement.

As a result these new concrete mixes were able to deliver stronger, cheaper concrete with far lower CO₂ footprints than had been possible without the addition of EdenCretePz.

This second Godrej order is a highly significant development in the commercialization of EdenCrete® products because:

- **Not only is it a significant order but it is the first repeat order from outside the USA to be received for any EdenCrete® product;**

- The successful testing and development programme undertaken by Godrej occurred during a year when India was greatly impacted by several major challenges including COVID 19 lockdown restrictions and opens the way for Godrej to roll these mixes out in several fast growing cities in Maharashtra with a combined population of over 50 million people;
- India is estimated to currently produce perhaps 150 million tonnes of fly ash per year and this is estimated to rise to around 500 million tonnes p.a. within the next 5-10 years as scheduled new coal fired power plants come on line;
- India has a population of nearly 1.3 billion people, of whom approximately 800 million live in rural areas;
- India announced in 2019 a US\$1.2 trillion infrastructure programme, that along with the rapidly increasing urbanization, will require very large quantities of concrete; and
- The addition of small dosages of EdenCrete[®]Pz to concrete mixes made with less Indian cement and a far higher percentage of Indian fly ash, has led to a number of new concrete mixes, covering a range of performance standards, being developed that all deliver stronger and cheaper concrete, and with each mix having a far lower CO₂ footprint than had previously been possible.

Collectively, these compelling factors are anticipated to lead to a rapidly broadening and accelerating rollout of EdenCrete[®] products, and in particular EdenCrete[®] Pz, across India over the coming years, opening what could potentially become the largest EdenCrete[®] market in the world.

Godrej

Godrej, established in 1897, is one of India's most respected and prestigious companies. The Godrej Group is widely diversified, operating in both India and internationally, supplying in excess of one billion customers and collectively generating an aggregate annual revenue of over US\$4 billion.

Godrej Construction builds and delivers a range of environmentally sensitive, commercial, industrial and residential buildings in India, that are designed to meet international standards. Its Construction Materials arm offers a wide range of building materials, including specially engineered ready-mix concrete and operates nine ready-mix plants supplying several major Indian cities with a combined population of over 50 million people.

Six of these plants are located in greater Mumbai, the second largest city in India (and seventh largest city in the world), with a population over 30 million people. Two of the plants are located in Pune with a population of 6.4 million people, and one plant is in Bengaluru (formerly called Bangalore), with a population of 13.4 million people.

These plants supply ready-mix concrete not only to Godrej Construction, but also to a range of third-party customers for use in a wide variety of applications.

Godrej Construction has developed a number of new, standard ready-mix concrete mixes, covering a wide range of performance specifications, each incorporating EdenCrete[®]Pz, that have greater strength, lower Greenhouse Gas footprints, and incorporate higher proportions of cheaper, readily available Indian fly ash (a waste by-product from Indian coal fired power plants), and lower proportions of more expensive Ordinary Portland Cement (OPC), resulting in cheaper concrete.

It is anticipated that the rollout by Godrej of these EdenCrete®Pz concrete mixes across its various plants will result in future, larger, repeat orders being received on a regular basis.

This repeat Indian order will be supplied from Eden's US plant in Littleton, Colorado, USA, and represents a further major milestone in the commercial rollout of the EdenCrete® range of products around the world.

Not only is the Godrej Group one of India's most respected and prestigious group of companies operating in one of the largest, and fastest growing concrete markets in the world, but additionally this second, far larger order from Godrej represents the first repeat international order (outside of USA) for an EdenCrete® product for use in commercial applications (as opposed to trials).

Indian Fly Ash Supply

In April 2018, the Indian Ministry of Coal estimated that India had approximately 319 billion tonnes of Geological Resources of coal, of which 280 billion tonnes are classified as non-coking coal, including approximately 129 billion tonnes of non-coking coal that are classified as "Proved/ Measured"¹.

Indian non-coking coal is mainly used in coal fired thermal power stations to generate electricity, fertiliser plants, cement furnaces and brick kilns. Much of this non-coking coal contains high levels of silica, that when burnt produces a significant percentage (by weight) of fly ash. To minimise air pollution, the fly ash is largely captured in the smoke stacks of the furnaces, generating very large quantities of fly ash that are sold at very low prices or in some cases given away free of charge.

The addition of EdenCrete®Pz to concrete mixes has enabled the percentage of the low-cost fly ash to be increased significantly, resulting in increased strength and also reducing both the cost of the concrete and its Greenhouse Gas footprint due to the fly ash itself being a low cost, waste by-product.

Indian Concrete Market

In India, with a population near 1.3 billion, the concrete market for industrial, commercial and infrastructure applications, whilst already large by global standards, is still rapidly growing.

To put this in context, by January 2020 (before the COVID-19 lockdowns occurred), it is reported that the annual cement production in India was approaching 350 million tonnes². As commercial concrete mixes often contain approximately 20-30% (by weight) of cementitious material, this is estimated to have resulted in the annual consumption of between approximately 1.17 billion tonnes 1.75 billion tonnes of concrete, or produced approximately 486 million cubic metres 729 million cubic metres of concrete.

With a 2019 election commitment to allocate US\$1.2 trillion towards infrastructure by re-elected Prime Minister Modi, India is a high priority target for EdenCrete® for infrastructure projects.

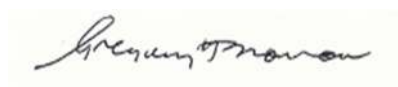
Relevantly, during the four years to 2019, the now re-appointed Indian Federal Minister for Transport and Roads, is reported to have driven an increase in the rate at which new Federal highways and roads were built (including a significant amount built using concrete), from two kilometres per day to thirty kilometres per day, and which rate the Federal Minister has indicated that he would like to double to sixty kilometres per day by the end of 2023.

1. <https://coal.nic.in/content/coal-reserves>
2. <https://tradingeconomics.com/india/cement-production>

EdenCrete® - BACKGROUND

EdenCrete® and EdenCrete®Pz are Eden's 100% owned, proprietary carbon-strengthened concrete additives 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 buildings, 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 is already in use in the USA in many 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.
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