

ACN 109 200 900

## **AUSTRALIAN SECURITIES EXCHANGE ANNOUNCEMENT**

# 30 August 2024 US Sales and Market Update

# **Total US Product Sales Increasing**

USA Sales (all Products)	USD\$	AUD\$	Monthly Average A\$	% change (avg mthly Sales)
1 Jul 23 – 30 Jun 24	\$1,044,435	\$1,593,656	\$132,805	
1 Jul 24 – 28 Aug 24	\$303,221	\$445,692	\$222,846	+74%

Continued sales growth projected over next 12-24 months from increased market interest

# **OptiBlend® Product Range Update**

- Total US OptiBlend® sales (1 July 2024 to 28 August) (equipment and installations etc ex taxes) US\$168,585 (AUS\$ 247,843)
- Received two Purchase Orders (future dated) since 1 July 2024 U\$\$94,654 (AU\$\$139,154)
   with anticipated ship date of third quarter of FY2025
- 4 active projects that will be shipped between September and October 2024 with a total value of US\$231,226 (AUS\$39,934), plus commissioning costs of US\$22,750 (AUS\$33,445) anticipated in the third quarter of FY2025.
- New Quotes given this Quarter

Since 1 July 2024, value of OptiBlend quotes- US\$1,406,316 (AUS\$ 2,067,483).

Current Outstanding Quotes

Total Current Quotes - US\$8,333,787 (AUS\$12,251,845)

<b>Quotes Period</b>	USD\$	AUD\$	Monthly	% change (avg
			Average A\$	mthly quotes)
1 Jan 23 - 31 Dec 23	\$3,934,694	\$5,784,556	\$482,046	
1 Jan 24 – 30 Jun 24	\$1,757,642	\$2,583,982	\$430,663	-11%
1 Jul 24 – 28 Aug 24	\$1,406,316	\$2,067,483	\$1,033,742	+140%

- Key Market sectors that are enquiring and /or being quoted:
  - US oil and gas drilling and fracking industry mainly in the Midwest (Texas/ Oklahoma)
  - o Prime power and backup power in oil fields -Northwest USA and Canada.
- Other developments possible new representatives /distributors
  - Considering potential new representatives for the eastern seaboard, Midwest, and northeast USA

# **EdenCrete® Product Range Update**

## EdenCrete®Pz/Pz7

Following 18 months of trials of EdenCrete® Pz7 and EdenCrete® Pz in 6 countries spread across 3 continents, the Holcim group has installed bulk EdenCrete® Pz7 storage and dispensing systems in plants in USA (Colorado) and Ecuador.

#### Holcim USA

- Several commercial and residential projects have been completed with EdenCrete® Pz7. These are the first projects utilizing EdenCrete® Pz7 globally.
- o These projects include foundation walls, footers, flat work and curb and gutter.
- The standard mix designs for these projects were modified to include over 30 % flyash in replacement of the same percentage of the ordinary Portland Cement (OPC).
- The resulting compressive strength performance from the EdenCrete®Pz7 enhanced concrete has met and exceeded the original mix design strength while affording both lower carbon footprints and reduced costs.



Figures 1 & 2 First EdenCrete® Pz7 project- Foundation walls for home development – Colorado





Figures 3 &4 Second EdenCrete® Pz7 project- wall placement in Colorado

#### Holcim Ecuador

• The first 20-foot container load of EdenCrete®Pz7 was despatched in August from Colorado to Holcim Ecuador, to be used at 2 newly set-up Holcim plants.

# **EdenCrete®**

The original EdenCrete® continues to be used in Australia and the US as shown below:

#### United Airlines - Denver International Airport (DIA), Colorado

- Now in the 5th year of concrete panel repair and full depth replacement, EdenCrete® continues to be used by United Airlines in their Cargo and Maintenance Hanger areas.
- Approximately 700cy of concrete has been placed so far this year, with another 300 to be placed in full depth panels in early September.





Figures 5 &6 DIA- United Cargo Area – concrete panel replacement.

### **Colorado swimming pools**





Figures 7 & 8 - Colorado swimming pool contractors utilizing EdenCrete for crack reduction

# OptiBlend® Key Features and Background:

- Works by displacing up to 60% of diesel fuel with Natural Gas;
- Lowers fuel costs, lowers emissions and increases runtime;
- Is a highly efficient, cost-effective system that reduces fuel cost and emissions;
- Is used by Cummins on its oil/gas drilling power module using 3 Tier II gensets;
- Is suitable for most makes of diesel engines; installed on most major global brands;
- Marketed in US and India for over 14 years highly reliable, durable, long proven in the market;
- Over 300 systems sold over past 14 years in USA ,India, Middle East, Africa and East Asia;
- Significant potential markets exist in USA, India and Africa; and
- In India (and in particular in Delhi and the National Capital Region) natural gas is far cheaper than diesel fuel, and extreme air pollution has resulted in government restrictions on use of gensets running solely on diesel fuel.

# EdenCrete® Background

EdenCrete® products are Eden's 100% owned, proprietary carbon nanotube-strengthened concrete additives that enhance 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, that collectively deliver stronger, tougher, more durable and longer lasting concrete.

Since 2015, the original EdenCrete® product has been sold in the USA, Australia and several other countries. It successfully and repeatedly delivers a wide range of benefits when incorporated into concrete that is used in many different applications, including low-rise, medium-rise and high-rise building construction, roads and bridges, airports, ports/marine/coastal applications, bus stations, carparks, water pipes, hardstand areas, waste transfer stations and many other applications.

One of the early primary target markets for the original EdenCrete® product is improving the performance of concrete used in the construction and maintenance of infrastructure including concrete roads, bridges, ports, airports, and other infrastructure, particularly where it is subject to heavy wear, freeze/thaw weather conditions, heavy snow falls, and/or high levels of added salt or de-icing chemicals.

The original EdenCrete® is generally used in concrete that incorporates a high percentage of Ordinary Portland Cement ("OPC" or" Portland cement") which is a calcium-based material.

EdenCrete®Pz and EdenCrete®Pz7 were new products that were developed several years after the original EdenCrete®. They are also suitable for use in used in high percentage OPC concrete. More frequently, however, they are used in concrete mixes to enable far higher proportions of pozzolans (silica-based cementitious materials), as alternative cementitious materials to OPC. Pozzolans include fly-ash and blast furnace slag which are both cheap, waste by-products from coal fired power stations and metal smelting respectively, each having a zero Greenhouse Gas footprint from its production process and, particularly in the case of fly-ash, usually being far cheaper that OPC.

Largely as a result of both the lower cost and significantly reduced carbon footprint of high pozzolanic concrete, EdenCrete®Pz and EdenCrete®Pz7 are gaining market traction in North America, South America, Europe, South Asia, South East Asia, and Australia where, they are being used, or are being trialled, for use in cheap, standard every-day, high-pozzolanic concrete mixes with low carbon footprints, replacing standard OPC concrete mixes.

The new high-pozzolanic concrete mixes, apart from generally being cheaper, significantly reduce the carbon footprint of the standard OPC concrete by approximately 90% of the mass of slag and/ or flyash that is used in substitution for OPC in the concrete mix. In other words, for every tonne of OPC that is replaced by a tonne of fly-ash or slag, the carbon footprint of the concrete will be reduced by approximately 900 kgs.

As the global concrete industry, one of the largest producers of annual global carbon emissions, is estimated to be generating approximately 8% of the annual total global CO<sub>2</sub> emissions, reducing the carbon footprint of concrete is a key objective of most countries and concrete companies around the world. EdenCrete®Pz and EdenCrete®Pz7 are unique products that were specifically developed to facilitate the use of far higher percentages of pozzolans as cementitious material, to be used in substitution for Portland cement, resulting in significantly reduced carbon footprints of the concrete produced.

As an example, Holcim, one of the largest cement and concrete companies in the world, which has as one of its main corporate objectives, reduction of its carbon footprint, undertook extended trials of EdenCrete®Pz and EdenCrete®Pz7, following which it has trialled these products in 5 other countries and has recently started rolling this out with the installation of EdenCrete®Pz7 dispensing systems in concrete plants owned by its subsidiaries in USA and Ecuador, whilst continuing with on-going trials in Canada, Mexico, UK and France.

Similarly, in Indonesia, which primarily has coal fired power production, advanced trials of EdenCrete<sup>®</sup>Pz and EdenCrete<sup>®</sup>Pz7 have been undertaken by several major Indonesian concrete companies, and as a result there is significant interest in importing EdenCrete<sup>®</sup>Pz and EdenCrete<sup>®</sup>Pz7into Indonesia and using it to produce low cost, low carbon concrete using Indonesian fly-ash.

There are vast reserves of fly-ash around the world that are stored in landfill and ponds or lakes.

In the US for example, the Environmental Protection Agency (EPA) surveyed the 310 active on-site landfills and the 735 on-site Surface Impoundments of fly-ash deposits across the USA and based on detailed measurements, has estimated that there is currently more than 10.5 billion cubic yards of stored fly-ash in the USA with more still being produced every year. Putting that in context, if 30% of the current US total annual consumption of OPC used in all US concrete production was replaced with fly-ash, the existing US fly-ash deposits (ignoring the ongoing fly -ash production) would last for over 120 years before they were exhausted.

EdenCrete®Pz and EdenCrete® Pz7 concrete mixes continue to repeatedly demonstrate in most parts of the world where trials have taken place, their ability to enable a significant proportion of the Portland cement to be replaced with fly-ash or slag, resulting in cheaper concrete, with comparable strength but with a far lower carbon footprint.

**Gregory H. Solomon** 

**Executive Chairman** 

This announcement was authorised by the above signatory.

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