



ACN 109 200 900

ASX Quarterly Report

For the Period Ended 30 June 2015

HIGHLIGHTS

EdenCreteTM /Carbon Nanotubes/ Carbon Nanofibres/ Hydrogen

- **Eden completed its first commercial projects with two customers using its EdenCreteTM concrete admixture in projects in Denver, Colorado.**
- **Various US trials of EdenCrete₅₀₀ enriched concrete have delivered improvements up to:**
 - **48% Increase in Tensile Strength in Concrete**
 - **29% Increase in Compressive Strength in Concrete**
 - **55% Reduction (Improvement) in Permeability in Concrete**
 - **48% Reduction (Improvement) in the rate of Abrasion in Concrete**
- **The second US concrete company (a large national company) to trial EdenCreteTM in Colorado has been satisfied with the results and has indicated possible interest in moving to commercial projects and discussions are anticipated in the short to medium term.**
- **A third US company that recently commenced trials of EdenCreteTM in Colorado has also achieved a significant increase in early compressive strength (an 18% increase in compressive strength after one day and a 24% increase after seven days).**
- **Initial discussions with the Department of Transport in the State of Georgia have taken place and resulted in the preliminary steps being initiated for laboratory and field trials of EdenCreteTM to be undertaken in conjunction with the Georgia DOT.**
- **Short term US production scale-up underway at Eden Innovation's Colorado based facility, to try and satisfy the anticipated increase in demand for EdenCreteTM.**
- **Large Scale US Production Scale-Up Design Commences and site selection and financing options are being considered.**
- **Eden has incorporated EdenCreteTM Industries Inc., a wholly owned US subsidiary, to be the vehicle to undertake the production and marketing of EdenCreteTM in the US.**
- **An Australian Research Council linkage research grant of A\$300,000 into use of carbon nanotubes in concrete was awarded jointly to Eden and Monash University, which will transfer it to Deakin University, where Dr Frank Collins, the primary investigator has been appointed Professor of Infrastructure materials at its Institute for Frontier Materials.**

- The CNT enriched polymer and plastics project with the University of Queensland (“UQ”) continued during the quarter.

Optiblend™ Dual Fuel

- Orders received in the USA during the quarter for 2 units having an aggregate value of US\$67,000 (A\$90,000).
- Following a dramatic slump over the last 9 months due to the drop in oil prices and great slow-down in US shale oil and gas exploration, an increased level of market interest in Optiblend™ dual fuel systems in both USA and India started to emerge later in the quarter. It is hoped that this will translate into increased sales in the next quarter.

UK Gas Assets

- The conditional Eden and UKOG formal merger agreement has been terminated by Eden’s UK joint venture partner following the failure of all the conditions to be satisfied.
- Merger discussions are continuing but there is no certainty that they will be successful.

DETAILS

NANO-CARBON, HYDROGEN and HYTHANE™

Pyrolysis Project (Eden 100%)

Market progress

During the quarter, Eden continued its efforts to develop suitable large scale commercial markets for its nano-carbon products. In particular, Eden continued to focus on developing commercial applications of the CNT-enriched concrete.

CNT Enriched Concrete and Cement Projects

First Commercial EdenCrete™ Projects

Eden completed its first commercial project with a customer using its EdenCrete™ concrete admixture in Denver, Colorado. The concrete for this first project was supplied by Metro Mix, a Colorado based concrete company with which Eden has been collaborating on the US trials for EdenCrete™. The project involved the construction of concrete retaining walls, concrete steps and an entrance area.

Subsequent to the above project, Metro Mix undertook two more commercial projects in Colorado using EdenCrete™, again confirming the high quality and workability of the EdenCrete™ concrete.

First US Field Trials of EdenCrete₅₀₀

The first US field trials were commenced by Colorado-based concrete company, Metro Mix of the Company's award-winning EdenCrete₅₀₀, a carbon-enriched concrete additive technology that adds super strength and performance to concrete but with very little extra weight.

The 56 day results, produced in laboratory tests being conducted in conjunction with the field trials, of concrete made using EdenCrete₅₀₀ produced encouraging results.

After adjusting for the additional water introduced into the mix with the addition of the EdenCrete₅₀₀, compared with 56 day old control cylinders of the same mix and age but which had no added EdenCrete₅₀₀, the 56 day old concrete cylinders to which EdenCrete₅₀₀ was added during production achieved the following improvements:

- 48% Increase in Tensile Strength after 56 days
- 29% Increase in Compressive Strength after 56 days
- 55% Reduction (Improvement) in Permeability after 56 days

These normalized results were obtained from 56 day old concrete made using a moderate strength concrete mix. Results obtained at 28 days and 56 days are the data used in defining most concrete performance standards.

Other US Trials of EdenCrete₅₀₀

In another laboratory test, an average 48% reduction (improvement) in the rate of wear from abrasion in concrete enriched with EdenCrete™ 500 (compared with a control mix without the added EdenCrete™) was achieved. This trial was conducted in accordance with US concrete standards testing procedures and simulated an accelerated rate of wear due to abrasion.

This result is particularly encouraging in relation to the possible application of EdenCrete™ in concrete to be used in building and repairing concrete highways and bridges, as a reduced rate of wear from abrasion is considered likely to translate into longer life surfaces and may well result in a lower overall costs over the life of the highway or bridge surface. If these results are repeated, they could be of great relevance to the proposed trials to be conducted by the Georgia Department of Transport (see below).

A second US concrete company (a large national company) to trial EdenCrete™ in Colorado has been satisfied with the results of trials it has conducted and has indicated possible interest in moving to commercial projects and discussions are anticipated in the short to medium term.

A third US company that recently commenced trials of EdenCrete™ in Colorado has also achieved a significant increase in early compressive strength (an 18% increase in compressive strength after one day and a 24% increase after seven days).

Consequently, all four companies that have now trialled EdenCrete™ (three in the US and one in Australia), together with Eden itself, have all experienced encouraging increases of compressive and/or flexural or tensile strength, or reductions in permeability and/or the rate of wear due to abrasion in laboratory trials.

Two further concrete companies, each of which operates in a separate State of the US, have also expressed interest in trialing EdenCrete™.

Preliminary investigation into the suitability and possible commercial application of EdenCrete™ in pre-fabricated concrete products has also commenced and will be further explored over forthcoming quarters.

State of Georgia Department of Transport

Initial discussions with the Department of Transport (DOT) in the State of Georgia have also taken place and resulted in the preliminary steps being initiated for both laboratory and field trials of EdenCrete™ to be undertaken in conjunction with the Georgia DOT. These trials are hoped to take place within the next two months. In addition to many concrete highways and other concrete infrastructure, Georgia has in excess of 15,000 concrete bridges (ranging from small to large) and a recent audit indicated that over 4,000 were not suitable for repair and need to be replaced over the next 20 years, at an estimated annual cost of in excess of \$300 million per year.

Completing the field trials is the prerequisite to being added to the pre-approved product list of DOT. Of relevance, it may be possible for the approval by one State's DOT to be easily adopted by the DOT in another State.

Establishment of Large, Commercial Scale US EdenCrete™ Production Capacity

Ongoing discussions with various interested parties and relevant authorities, initially focusing on Georgia, related to both the possible location and financing in the US of Eden's first proposed large scale EdenCrete™ production facility are continuing and two preliminary proposals have been received to date. Further proposals are expected with a final decision on the chosen location and method of financing still expected within the next two-three months.

Large Scale US Production Scale-Up Design Commences

A specialist engineering group commenced work on the preliminary design work on a reactor capable of producing up to a targeted 250 tonnes of carbon nanotubes (CNT) per annum, which would be sufficient to produce enough EdenCrete™ to supply approximately 1% of the annual US Interstate Highways' concrete demand (based on figures published in 2005 by the US Geological Survey). The anticipated time to design and build this reactor is likely to be between 15-18 months. A further expansion of production capability of CNT up to 1,000 tonnes per annum is also being planned over the following two years. The size of these reactors may change as possible economies of scale and other relevant issues emerge during the design phase of this project.

Short Term US Production Scale-Up Underway

Steps are now underway to increase over the next three-six months the short term CNT production capacity at Eden Innovation's Colorado based facility, with a view to expanding this capacity as required to attempt to satisfy the targeted increase in demand for EdenCrete™ until the large scale facility comes on line.

New US Subsidiary Company Established

Eden has incorporated a new, wholly owned US subsidiary named EdenCrete Industries Inc. that will be used as the vehicle to undertake the production and marketing of EdenCrete™ in the US

CNT Enriched Polymers and Plastics Project in Australia

The CNT enriched polymer and plastics project with the University of Queensland (“UQ”) that is being headed by a well-qualified post-doctoral candidate from the US and which is partly funded by an ARC grant, continued during the quarter. This project is aiming to develop reinforced polymer composites for potential automotive and aerospace applications.

UQ was awarded a \$255,000 grant by the Australian Research Council in 2014 to partially fund this three year project. This collaboration project follows earlier preliminary encouraging results from the addition of Eden’s carbon nanotubes into polypropylene.

CNT Enriched Polymers and Plastics Project in India

An Indian company has undertaken preliminary trials using Eden’s nanotubes in polymer coatings, polymer composites, anti-corrosive coatings and antifouling coatings with encouraging results. Follow-up discussions regarding a possible collaboration are being targeted to take place during the next 3 months.

Background

Eden has developed an efficient, commercially competitive pyrolysis process to produce carbon nanotube (CNT) and carbon nano-fibres. Eden remains optimistic that it will develop suitable markets for the nano-carbon products that it can produce. Eden currently has established production capabilities at its subsidiary in Colorado that enable it to produce up to 40 tonnes of nano-carbon per year from a feedstock of natural gas (methane).

Additionally, the only other major by-product from Eden’s pyrolysis process is hydrogen, the real cost of which will be dependent upon the value of the carbon produced. The quantity of hydrogen produced will be 25% (by weight) of the quantity of carbon produced.

This hydrogen can be used either re-mixed with natural gas to create Hythane™ to fuel the pyrolysis reactor, generate electricity or captured and fed into the various hydrogen/Hythane™ applications that Eden has been developing, to try and accelerate the commercial rollout of these hydrogen applications based on the relatively low cost hydrogen. The current cost of hydrogen is one of the major limiting factors holding back a broader rollout of hydrogen and Hythane™. Encouragingly, the hydrogen produced using the Eden pyrolysis process will generate only a relatively very small amount of greenhouse gas as a by-product compared with most other currently available methods of hydrogen production, and in consequence it is projected that the hydrogen is likely to be both commercially competitive and environmentally preferable. However, as the quantity of CNT currently required is relatively small, in the early stages at least it is most likely that the hydrogen by-product will be used as fuel in the CNT production process thereby reducing both the CNT production costs and the CNT production Greenhouse Gas footprint.

OPTIBLEND™ DUAL FUEL SYSTEM (EDEN 100%)

US OptiBlend™ Progress

Eden Innovations (formerly Hythane Company), the wholly owned US subsidiary of Eden, received purchase orders for two OptiBlend™ dual fuel system units totalling US\$67,000 (A\$90,000) during the quarter.

A significant fall in the price of oil during the past 9 months has led to a severe decline in US OptiBlend™ sales. If and when global oil prices rise, a growth of sales of OptiBlend™ into the US oil and gas exploration and production markets is anticipated. It is also hoped that the oil and gas markets will be supplemented by demand from prime power markets such as agriculture (for uses such as powering irrigation pumps) and industrial plants, with additional requirements in backup power for hospitals and data centres. Additionally, expansion in suitable overseas markets is also anticipated in due course, particularly in India.

During the latter part of the quarter, a modest increased level of market interest in OptiBlend™ dual fuel systems in both USA and India started to emerge. It is hoped this will translate into increased sales in future quarters.

Eden Innovations is continuing to work on trying to establish a number of partnerships to increase its bi/dual fuel offerings. These proposed partnerships include work with various OEMs to become their default supplier and/or supplier of private labelled OptiBlend™ technology.

India Optiblend™ Progress

During the quarter, Eden Energy India received no new orders for Optiblend™ systems in India, but tendered on a reasonably substantial opportunity to supply dual fuel to the emerging Indian shale gas exploration market. However, an increased level of interest, particularly from an emerging Indian shale gas exploration industry, is emerging and is hoped will translate into sales in the coming quarters.

Optiblend™ Background

Eden has developed an efficient dual fuel system that is capable of operating on diesel engines and displacing up to 70% of the diesel fuel with natural gas. If Hythane™ fuel (hydrogen enriched natural gas) is used in place of natural gas, the displacement of diesel fuel could be as high as 80%. The use of the natural gas will greatly reduce greenhouse gas emissions and, in places where natural gas is cheaper than diesel, will also reduce fuel costs. It has significant market potential particularly in the diesel powered generator set (“genset”) market.

As a result of the increase in shale gas recovery in USA, the lower priced natural gas has resulted in a large market in USA for the conversion of these diesel engines to operate on a dual-fuel system of both natural gas and diesel is anticipated. Depending upon the size of the engine and the number of hours per day that it operates, payback times for the conversions are mostly a lot less than 12 months, so the cost is minimal compared to the replacement cost of a natural gas generator.

Hythane™ Fuel Projects

Indian Hythane Bus Demonstration Projects

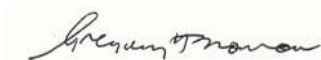
No progress was made during the quarter on any of the potential Indian Hythane™ projects. Whilst Eden remains hopeful that these projects may ultimately proceed, particularly if in the longer term Eden can utilise low cost hydrogen produced as a by-product from its pyrolysis project to produce carbon nanotubes, at present these projects are looking unlikely to occur.

UK GAS PROJECT

The formal conditional merger agreement with its existing UK gas and petroleum Joint Venture partners was terminated during the quarter. However, ongoing merger discussions with our UK JV partner related to a possible merger on some basis or other are continuing in difficult market conditions.

The UK Gas Assets

The UK Gas Assets, held by Eden’s wholly owned UK subsidiary, comprise Eden’s 50% joint venture interests in 13 Petroleum and Development Licences (PEDLs) in England and South Wales. It is possible that some of these licences may be relinquished in light of the current difficult operating conditions and the political uncertainty that may arise if the UK Government devolves power over Welsh PEDLs to the Welsh Authority as foreshadowed.



Gregory H Solomon

Executive Chairman

For further information, please contact Greg Solomon (+61 8 9282 5889) or visit our website (www.edenenergy.com.au).

Interests in Tenements as at 30 June 2015

Tenements	Location	Interest held at end of quarter	Acquired during the quarter	Disposed during the quarter
PEDL100	UK	50%		
PEDL148	UK	50%		
PEDL149	UK	50%		
PEDL214	UK	50%		
PEDL215	UK	50%		
PEDL216	UK	50%		
PEDL217	UK	50%		
PEDL219	UK	50%		
PEDL220	UK	50%		
PEDL227	UK	50%		
PEDL249	UK	50%		
PEDL250	UK	50%		
PEDL252	UK	50%		