



ASX Quarterly Report

For the Period Ended 31 March 2012

HIGHLIGHTS

Pyrolysis Project - Carbon Nanotubes/ Carbon Fibres/ Hydrogen

- Work continues on optimising the production of the nano-carbon materials and also seeking suitable commercial markets.

Optiblend® Dual Fuel Project

- Significant increase in interest in OptiBlend® in USA.
- During the quarter, Hythane Company sold a further 3 units and completed the installation of two units sold the prior quarter. Since the beginning of April 2012, orders for a further 3 units have been received, and a significant number of quotations is outstanding.
- An order has been received from a distributor of a major brand of US manufactured gensets.
- Hythane Co sold and commissioned a small system to convert a 30kw diesel genset to operate on diesel/syngas.

Dedicated Syngas Generator Set Development

- Hythane Co commenced development of new dedicated hydrogen / syngas gensets

Hythane®

- Negotiations are continuing for Indian Hythane® bus projects with both GAIL and GSPC Gas.
- Eden Energy India is down to the last two tenderers for a contract to build a new hydrogen fuelling station for the Indian government.

UK Gas Assets

- Eden is actively pursuing alternatives for a proposed sale/spin-out of its significant UK gas assets

US DOE Funding Opportunities

- Hythane Company has submitted 5 separate Concept Papers for funding by DOE.

CARBON, HYDROGEN, DUAL FUEL and HYTHANE®

1 Pyrolysis Project (Eden 100%)

Production of High Quality Nano-Carbon

During the quarter, Hythane Company, Eden's wholly owned US subsidiary, continued work to develop the process to continually produce higher quality nano-carbon products in its reactors. Eden believes that it now has the capacity to produce commercial quantities of good commercial grade carbon in a variety of forms at competitive prices, and is now focusing on finding suitable market opportunities for this carbon.

Market progress

During the quarter, Eden and its US subsidiary continued its efforts to develop suitable large scale commercial markets for its carbon. The Eden Group is now collaborating with three separate universities on various possible applications for its carbon and is pursuing application development options with two companies with a view to trying to develop large commercial markets for its nano-carbon products.

Concrete

During the quarter, Eden continued its research into trying to replicate on a repeatable basis its encouraging initial results in US trials, with the addition of small quantities of CNT or CNF being added to cement to increase compressive strength.

Hythane Company has been focusing on methods to evenly disperse the carbon and has developed a technique which significantly enhances the even dispersion of carbon nano-materials in concrete and/or mortar composites and is also pursuing possible commercial collaborations with suitable commercial partners.

Eden has been encouraged by its previous preliminary results and is continuing with this nano-carbon enriched concrete/mortar development and testing programme.

Plastics and Epoxies

Eden has supplied samples to several commercial operators to test the effects of compounding Eden's CNT and CNF with various forms of plastics and epoxy materials (epoxy resin, polyester resin, etc), with a view to testing the effect of the addition of CNT and CNF to plastic on the strength, electrical and thermal conductivity of plastic. Eden's initial work produced encouraging preliminary results.

Eden was able to achieve a volume resistivity in these materials of approximately 10^5 to 10^7 Ohm*m, which puts these materials well within the range of use for electrostatic discharge (ESD) applications. This opens up growing markets for the compound such as for use as a coating on a range of electrical products and components.

Eden is itself, and with the aid of a third party laboratory, also working on methods to optimise the compounding and dispersion process, as well as the carbon loading amount, to maximise electrical conductivity of these normally insulating materials while maintaining the physical properties as closely as possible to that of the neat resins. It is hoped that this development will achieve a suitable commercial pre-mixed product that can be commercially sold, utilising Eden's carbon. The final result of this will depend upon both the technical and commercial outcomes of the development work.

Batteries and Electrical Applications

Further preliminary test work is being carried out by a number of companies for use of Eden's nano-carbon in batteries and other electrical applications. Eden also undertook some research itself in relation to developing a combined epoxy/carbon that Eden could market for electrical applications. This test work is still continuing.

As previously advised, battery companies have reported substantial benefits using the Eden nanomaterials, but no further sales or breakthroughs were achieved during the quarter.

Rubber

As previously reported, the Company arranged for the external testing of the effect that the substitution of CNT and CNF for carbon black in rubber, will have on the tensile strength and strain density of the rubber (and its potential to result in lighter, longer life tyres). Carbon black, or amorphous carbon, comprises up to 33% of the weight of rubber tyres and adds strength and aids in the dissipation of heat. CNT and CNF were anticipated to increase the durability of the rubber, increase the heat dissipation and at the same time significantly reduce the weight of the tyres.

The preliminary test results, however, as previously advised were not encouraging. No further progress on this application was made during the quarter, and at this stage Eden will not focus on applications related to rubber.

Summary

Eden is well on the way to completing the development of an efficient, commercially competitive production process that should enable Eden to produce significant quantities of commercially suitable qualities of nano-carbon and to participate in a growing global nano-carbon market.

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 33.33% (by weight) of the quantity of carbon produced.

This hydrogen can be either captured and fed into the various hydrogen/Hythane® applications that Eden has been developing around the world, with the intention of accelerating the commercial rollout of these downstream hydrogen applications based on the prospect of relatively low cost hydrogen, or else it can be used to help fuel the pyrolysis reactor.

The current cost of hydrogen is one of the major limiting factors holding back a broader rollout of hydrogen and Hythane® technology. Of further interest, the hydrogen produced using the Eden pyrolysis process will generate only a relatively very small amount of greenhouse gas as a by-product of the production process compared with most other currently available methods of hydrogen production, and in consequence it is projected that the hydrogen will be both commercially competitive and environmentally preferable.

However, finding suitable commercial markets for the carbon is not happening easily. That said, during the quarter it was reported that a major Japanese electrical manufacturer had developed a suitable method to disperse carbon in plastics for electrical applications and was proceeding to build a commercial scale plant nano-carbon production plant. Whilst to date it has not happened as quickly as Eden would have wished, we have some very competent parties with whom we are collaborating and remain confident that suitable commercial applications will be found.

2 Optiblend® Dual Fuel System (Eden 100%)

US Optiblend® Sales

During the quarter, 3 units were sold and 2 units, sold the previous quarter, were installed and invoiced. A further 3 orders have been received since the end of the quarter, confirming the increased level of US interest in OptiBlend®. Representatives supporting various engine manufacturers have quoted numerous OptiBlend® kits and have received a growing number of encouraging enquiries for the kit, and one distributor of a major US genset manufacturer has now placed an order for a kit, confirming the market acceptance of Eden's OptiBlend® technology. Sales representatives have been appointed in most US states, and also in several South American countries.

To date Hythane Co has sold and commissioned 11 units in USA (including one in Europe) and has received orders for a further 4 units (three since the start of April 2012). Additionally Hythane Co is awaiting responses on a further 20 quotations that it has provided to a number of potential US customers. Sales to date have been for a range of applications including multiple orders for both drilling rigs and mobile industrial plants, and one order for a back-up power genset.

The OptiBlend® market is dependent on there being a price differential between natural gas and diesel fuel, and during the quarter, largely as a result of the increasing supply of US shale gas, US natural gas prices reached their lowest levels in almost 10 years, and a large margin developed between the price of natural gas and diesel fuel. This, largely, has been behind the significant increase in enquiries and orders for the OptiBlend® technology in USA.

Indian Optiblend® Progress

During the quarter, Eden commissioned a further 2 previous OptiBlend® orders. To date Eden has sold and commissioned a total of 8 units in India which are all operating to specification, confirming the technical quality and suitability of the OptiBlend® technology. During much of 2011, Eden Energy India was able to generate sufficient profit from OptiBlend® sales to be financially self-sufficient.

However, during the past two years, whilst the price of natural gas in India has risen steadily (by almost 45% in places), the Government has maintained a constant market price for diesel fuel, with the combined result that natural gas is now nearly as expensive as diesel fuel in many places, whilst at the same time the oil companies are reported to be losing money by having to sell diesel fuel at below cost price.

Although many other developing countries facing the same dilemma have increased their diesel prices, until this situation changes in India, Eden does not anticipate that it will be able to achieve many sales in India and realise the very significant Indian market potential that its OptiBlend® kit has. In the meantime Eden India continues to explore other regional markets for OptiBlend® where this situation does not exist.

Syngas in Dual Fuel Applications

During the quarter, Hythane Company developed and sold a small OptiBlend® conversion system to a U.S. company that has developed a new, commercial pyrolysis process that produces much higher hydrogen-content syngas from cellulosic feedstocks than traditional "producer gas" or "wood gas". The OptiBlend® conversion system allows this company to operate their in-house 30kW diesel genset with the hydrogen-rich syngas fuel (65+% H₂) and diesel pilot-ignition.

Their genset was sent to Hythane Co. in January 2012 for conversion using simulated syngas (H₂ + CO₂ mixture), and the unit was commissioned and brought on-line in early March 2012, running on actual cellulosic product syngas.

It is anticipated that this experience will lead to additional OptiBlend® syngas conversion system sales, to complement future syngas pyrolysis equipment sales and projects. Depending on the source of the cellulosic feedstock, projected syngas costs are less than USD\$1 per kilogram of hydrogen, for about the same fuel energy as 3.3 litres of diesel fuel. In addition, most feedstocks for the pyrolysis process are renewable or carbon-neutral with regard to CO₂ greenhouse gas emissions.

Many remote communities in the world currently use diesel generator sets and very expensive imported diesel fuel. Eden Energy is currently exploring other opportunities for OptiBlend® dual fuel systems using low-cost traditional “producer gas” in these applications, as well.

OptiBlend® Background

Eden has completed the development of an efficient dual fuel kit that is capable of operating on diesel engines and displacing up to 70% of the diesel fuel with natural gas. If Hythane® 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.

As lower priced natural gas, which is much cleaner than diesel, becomes more widely available, a large market in both USA and India 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 often less than 12 months, so the cost is minimal compared to the replacement cost of a natural gas generator.

3 Syngas Generator Sets

Following requests from major potential US customers, Eden Energy’s US subsidiary, Hythane Company, has begun development of a spark-ignited engine conversion system to allow operation on hydrogen-rich renewable biogas.

Many sources of biogas can contain large percentages of methane and hydrogen, along with inert components like nitrogen or carbon dioxide, and these gaseous fuel blends generally allow operation in conventional spark-ignited engine generator sets (gensets) intended for natural gas fuel, with a few simple modifications. However, new gasification equipment technology developed for cellulosic or wood-based biomass has the capability to produce a syngas composition with over 60% hydrogen. Syngas can also be produced from fossil fuels.

This syngas fuel requires careful, precise fuel handling and control, with control strategies and systems similar to dedicated pure-hydrogen engines. Extensive knowledge and experience with hydrogen-fuelled internal combustion engines makes Hythane Company uniquely qualified to develop and market these engine conversion systems for large stationary generator sets used for distributed electrical systems or combined heat and power (CHP) production.

Large volumes of mixed syngas and air must be avoided in the engine intake system with such a large hydrogen concentration in the syngas fuel, because hydrogen has a very wide flammability range and low ignition energy, making pre-ignition and intake backfires a significant risk. The possibility of abnormal engine operation, or even mechanical damage, precludes the use of conventional air mixer/carburetion systems on most large industrial natural gas engines. Over the

years, Hythane Company and its predecessor, Hydrogen Components, Inc., have developed fuel systems for many internal combustion engine projects, and this in-depth understanding of hydrogen engine combustion and control was patented in June 2010.

Hydrogen engine projects from the early 1990s to present include a 1.5L Honda engine for an unmanned Navy submersible, four 2.5L Ford Ranger pickups (one turbocharged, three supercharged) for Xerox in California, a 70kW generator set in a Bluebird hybrid electric bus for the 1996 Olympics in Atlanta, six 2.3L Mercedes Sprinter vans in Germany, and two 125kW Cummins genset engines in 2002. The new dedicated hydrogen/syngas genset control system under development will target the range from 200kW to 2,000kW.

In addition to dual fuel diesel engine conversions, Hythane Company has begun studies toward the design and development of a dedicated spark-ignited engine for 100% high-hydrogen content syngas operation.

Traditional “producer gas” or other biogas engines are typically modified spark-ignition natural gas or petrol engines with very crude fuel delivery. Poor air/fuel control and low fuel energy density severely limits the power and efficiency of these generator sets. Additionally, low hydrogen content and high levels of carbon monoxide and methane in the producer gas limit any prospects for improvement. In contrast, the new cellulosic pyrolysis syngas is mostly hydrogen and carbon dioxide, which permits improved engine operation, but much more sophisticated fuel delivery and engine control strategies are necessary.

The carbon dioxide, along with exhaust gas recirculation (EGR), enables low-pressure syngas supply without fuel compression equipment costs, while avoiding the risk of damaging intake system backfires, which are a common problem in simple pre-mixed hydrogen/air fuel delivery systems. This project will meet the performance targets by combining four proven ICE control technologies in a new, innovative combination that exploits hydrogen’s exceptional combustion characteristics, using Eden Energy’s patented system for optimized hydrogen engine control. The performance targets include: power density and durability similar to natural gas ICEs; efficiency better than diesel ICEs over all operating conditions; near-zero emissions; and manufacturing costs and processes comparable to today’s gensets.

4 Hythane®

Indian Hythane® Project

Mumbai and Gujarat Hythane® Bus Demonstration Projects

During the quarter, discussions continued with GAIL and GSPC in relation to these proposed projects in Delhi and Gujarat.

As previously advised, each project would involve essentially the same concept as was proposed for Mumbai with Eden establishing a Hythane® refuelling station at a suitable bus depot to fuel buses. The exact scope of each project will be reviewed and if they proceed, are anticipated to possibly involve firstly a two bus trial of Hythane® fuel, with the initial hydrogen planned to be supplied from bottled hydrogen, followed by a second stage, of possibly up to 10 or more buses, with the hydrogen planned to be supplied by Eden from one of its reformers. This reformer is planned to be installed on site, to produce both the required hydrogen, and also carbon products that Eden hopes to be able to sell into the Indian market.

If commercial scale hydrogen production, using Eden's new pyrolysis process is available, it could increase the chances of developing a large Hythane® market in India if the cost of the hydrogen can be underpinned by the value of the carbon that is produced.

Whilst no significant progress was made on these Indian Hythane® projects during the quarter, there remain definite signs of an increased level of interest from the Indian Government to proceed with its both its hydrogen projects and the proposed HCNG programme, and Eden remains hopeful that these projects will proceed during the next 6-12 months. This interest has resulted in the Indian government calling for tenders to build another hydrogen station in Delhi, and whilst the list of tenderers has been reduced from five to two in the initial review, Eden Energy India is one of the remaining two tenderers. The outcome of this tender is anticipated in the current quarter.

5 Energy Projects

UK Gas Project

Eden holds a 50% interest in 17 PEDLs in South Wales, Bristol/Somerset and Kent and a 100% interest in 3 other licences, covering a total area of more than 2,100 square kilometres (approximately 510,000 acres) and taking in very large portions of the coal fields and surrounding basins in these three areas of the UK, all of which have significant potential for both coal seam methane and shale gas.

As with the US shale gas market, the UK shale gas market is currently being reviewed by the UK government. Whilst Eden has two fully permitted drill sites in South Wales on licences in which Eden holds 100% and at which it can drill and core for both coal seam gas and shale gas potential, it is unlikely that any hydraulic fracturing or other stimulation will be permitted until the governmental review is complete and any necessary regulations put in place. However, the drilling and coring would help to significantly firm up the potential gas in place on the Eden licences.

Eden is currently, and during the quarter has been in negotiations with a number of parties in relation to selling these gas assets into a new company in which Eden is anticipated to hold a significant interest, and is optimistic that a sale on suitable terms may be able to be achieved during the next three months.

6 US DOE Funding Opportunities

In March 2012, the US Department of Energy (DOE) released an Open Funding Opportunity Announcement (FOA) under their new Advanced Research Projects Agency – Energy (ARPA-E) division. As expressed in their mission statement, “ARPA-E focuses exclusively on high risk, high payoff concepts - technologies promising genuine transformation in the ways we generate, store and utilize energy.” Hythane Company has responded to this FOA with 5 separate Concept Papers. Three potential projects would develop various optimized hydrogen or syngas engines for transportation or power generation. Another two projects were proposed for the development of energy cost monitoring and reporting equipment for homes and vehicles.

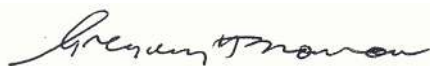
7 Corporate Matters

As previously announced, Eden energy entered into a facility agreement with La Jolla Cove Investors (“La Jolla”) in November 2011, to provide supplementary working capital in the event that the last rights issue in November 2011 did not raise sufficient funds. As it transpired, the rights issue was not significantly supported other than by the major shareholders. In consequence, that resulted in

funds having been to be drawn down from La Jolla, which in turn has converted much of this debt to shares, many of which they have sold. This in turn has resulted in a significant drop in the Eden share price, at a time when its projects remain very encouraging, and in particular whilst both interest and revenue from the OptiBlend® kit has been developing in USA as a result of the low US natural gas prices.

Eden has been and continues to explore alternative funding methods but, to date, nothing suitable has resulted, and as a result Eden has given notice to draw down the second tranche of US\$1million from La Jolla.

However, Eden remains hopeful that it will be successful in its claim to recover approximately \$1m that is still owed to Eden from the sale in 2009 of some of the hydrogen assets, and in respect of which it has been awaiting a decision in its summary judgment application from the Supreme Court of Western Australia since July 2011. Further, Eden is hoping to be able to raise some cash from the proposed sale of its UK gas assets. If these occur, it is anticipated that Eden will not need to draw down further funds from La Jolla.



Gregory H Solomon

Executive Chairman

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