

## ASX Quarterly Report for the Period Ended 30 June 2010

### HIGHLIGHTS

#### India

- Eden completed the successful testing of a production ready 6-litre bus engine, achieving a 6.5% increase in efficiency and significantly emissions reductions, that will enable India's largest bus manufacturer, Ashok Leyland, to power buses with Eden's low-emission Hythane® blend of hydrogen enriched natural gas.
- Eden progressed its program to finalise the cost down of the Optiblend kit, using many Indian components to substantially reduce cost of this kit.
- Subsequent to the end of the quarter Eden received its first order for an Optiblend® kit for a 1,250KVA generator based in Mumbai.

#### United States

- San Francisco Airport Hythane® Project is progressing slowly, with key negotiations having been finally completed during the quarter. It is now projected that hydrogen and Hythane station will become operational early 2011.
- Interest in US in OptiBlend Dual Fuel Kits gradually emerging.

#### UK & Australia

- UK Coal Bed Methane joint venture has completed a budget and drilling program for the drilling and testing of two well sites 2011.
- A non-binding term sheet has been signed with Eden's UK/Wales gas joint venture partner, Coastal Oil & Gas, to merge and publically list their UK/Wales coal bed methane, conventional gas and shale gas interests which cover a total area of approximately 500,000 acres.

# **HYDROGEN, HYTHANE® AND DUAL FUEL PROJECTS**

## **Background - India**

Progress continued with Eden's various hydrogen and Hythane® projects in India during the quarter. In 2006, India adopted a Hydrogen Roadmap that proposes to have 20% of all vehicles running on a hydrogen based fuel by 2020, and plans to use hydrogen enriched natural gas (Hythane®) as the transitional fuel. At present there are approximately 12 Indian cities that have established natural gas distribution networks, in which expanding numbers of natural gas fueled vehicles, particularly buses, are operating. The Indian Government has announced a new target to expand such networks to 200 cities by 2015 – opening up a potentially huge Hythane® market across the country.

Additionally, commercial production of natural gas from the large offshore KG basin commenced in April 2009, which is expected to significantly increase the amount of available natural gas in the coming years. These factors together make India the primary target market for Eden's hydrogen and Hythane® technology.

## **Progress on Eden's Indian Projects**

### **1 Indian Hythane Bus Demonstration Projects**

#### *Hythane® Engine Development*

Eden completed the successful testing of a production-ready 6-litre engine that will enable India's largest bus manufacturer, Ashok Leyland, to power buses with Eden's low-emission Hythane® blend of hydrogen-enriched natural gas.

The revolutionary 2010 H06B CNG engine - developed by Eden's wholly-owned US subsidiary, Hythane Company, at Ashok Leyland's Hosur laboratory in India - was initially designed to meet the country's current Bharat IV (Euro IV) mandatory emissions targets.

Significantly, the results from the naturally-aspirated engine revealed it will ultimately enable India's buses to operate at a level of emissions that meet the most stringent standards of future.

The results would comply with the next generation of Bharat V (Euro V) requirements, ensuring a long production life for the HO6 engine.

Over the "European Transient Cycle" (ETC), an engine dynamometer test that simulates real-world driving conditions for heavy-duty vehicles, the Hythane® engine tests yielded the following improvements relative to the natural gas baseline:

- Oxides of nitrogen (NOx) emissions reduced by 16.6%
- Total hydrocarbon (THC) emissions reduced by 15.1%, including a non-methane hydrocarbon (NMHC) reduction of 66.6%
- Carbon dioxide (CO2) emissions reduced by 6.2%
- Fuel efficiency improvement of 6.5% based on fuel combustion energy.

Eden Energy will receive royalties from both Ashok Leyland and the engine control system provider for all these Hythane®-fuelled-engine sales.

In the near future, Ashok Leyland also plan to release turbo-charged versions of the H06 engine, and the control system strategies used for these engines will allow them to take advantage of hydrogen's unique combustion properties above and beyond the improvements seen in the base CNG/Hythane® engine.

Preliminary investigations on the new engines began in April after the base engine production calibration work, and production-intent optimisation by Hythane Company and Ashok Leyland will continue this year.

The release of India's first production Hythane® engine will precede the country's first large-scale refuelling station for hydrogen-enriched natural gas, as previously announced by Eden Energy. This station, due to be constructed by the end of the year, will refuel 50 to 70 buses in Mumbai.

#### Mumbai Hythane® Bus Demonstration Project

During the quarter the applications for the necessary government approvals for the proposed Mumbai Hythane® bus demonstration project with GAIL (India) Ltd ("GAIL") and Mahanagar Gas Ltd ("MGL") were prepared. These will be lodged once agreement with the bus company on the project details is reached.

GAIL (Gas Authority of India) is the largest distributor of Natural Gas in India. MGL is a joint venture company jointly owned by GAIL, BG Group and the Government of Maharashtra, which owns and operates pipelines and markets Natural Gas in and around the Mumbai area to a broad commercial, domestic and industrial customer base of more than 25 million people.

The demonstration project in Mumbai will involve Eden establishing a Hythane® refuelling station at a suitable bus depot to fuel buses, progressively increasing to 50-70 buses. The proposed bus depot in Mumbai is operated by BEST, the state owned Mumbai bus operator that operates more than 4000 buses, half of which are already using natural gas and all of which are planned to be operating on natural gas within the next three years. MGL supplies BEST with all its natural gas requirements. However, following recent changes in management personnel at BEST, renewed negotiations with BEST on the project details are still underway

Upon successful completion of the demonstration project the parties will endeavour to negotiate a commercial agreement for the ongoing promotion and marketing of Hythane® by MGL in its area of operation.

## **2 Proposed Joint Venture for Up-scaling Pyrolysis Technology**

As previously announced in February 2010, Eden secured an in principle agreement with Indian Oil Corporation Limited (IOCL) on the terms of a detailed non-binding terms sheet for IOCL to farm-in to the new pyrolysis technology developed jointly by Eden and the University of Queensland (UQ) with support from the Australian Research Council. Through this technology, methane (natural gas) is broken down into its atomic constituents of hydrogen gas and solid carbon, without the production of carbon dioxide, to produce carbon fibres and nanotubes that exhibit tensile strengths up to several hundred times greater than that of steel. If successfully piloted on a commercial scale, the process could have important implications for the widespread commercialisation of these ultra-strong forms of carbon that can be used in composite materials for the construction, electronics, aerospace and vehicle building industries.

However, IOCL has been delayed in sending personnel to Queensland to assess this technology as required by the terms sheet, and Eden is now considering alternative options for developing this technology.

In the meantime, Eden has decided to proceed with the acquisition of the 50% interest held by UQ in this technology and the Gas-to-Liquids technology that is currently being jointly developed with UQ for a consideration of 3,750,000 fully paid ordinary shares in Eden as previously announced and steps are underway to complete this.

### **3 Dual Fuel Technology**

Eden has completed the development of a very 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. In various parts of India, natural gas is already significantly cheaper than diesel, and accordingly Eden has been targeting a diversified market for this technology, starting with stationary power generators and then locomotives.

The trial period of the first three OptiBlend® dual fuel systems sold in Assam in north-eastern India, was successfully completed during the previous quarter and payment was received in full. The final results from the trial period show the OptiBlend® dual fuel systems were displacing above expected amounts of diesel (up to 75% under certain operating conditions), resulting in short capital cost payback periods. These first sales were to one of the world's largest tea plantations, and were trialled on diesel generators with a power output of between 400 kVA and 1,250 kVA. Due to recent, likely temporary, restrictions on the availability of natural gas in Assam, Eden has not so far received any further orders from Assam tea plantations, although future orders are expected.

In India there are many hundreds of thousands of medium and large sized diesel-powered generators that are used to provide either back-up power or base-load power to commercial, industrial, residential and institutional complexes throughout the country. Apart from greatly reducing local air pollution resulting from NOx, carbon monoxide and particulate matter emissions, the new dual fuel kits are projected to have a pay-back period of between 6-24 months, depending upon the size of the engine and the amount of usage.

Eden has, since the end of the quarter, received its first order for an OptiBlend® kit for a 1,250KVA generator based in Mumbai, which will help open up a very large potential market in Western and Northern India where natural gas is now becoming available.

Eden is pursuing many other possible customers in India (and then planning to expand into other suitable territories). The recent appointment by Eden Energy India of two additional engineers in India will enable Eden to significantly reduce the cost of Indian installations, both Hythane® and OptiBlend®.

## **Progress on Eden's US Projects**

### **1 San Francisco International Airport (SFO)**

In the past quarter, negotiation of the contractual arrangements for the Hythane® station at San Francisco International Airport, which had been holding up the project, were completed but further funding for additional electricity supply is still being sought. Subject to this funding being available it is now expected that construction may begin next quarter. Both the hydrogen and Hythane® stations are projected to be completed and operational early 2011.

For this project, Hythane Company has received funding for station infrastructure as well as the conversion of 27 Ford E-450 airport shuttles to run on Hythane®. The project will demonstrate the practicality of Hythane® vehicles for large-scale projects across the US.

Funding is being supplied by the Bay Area Air Quality Management District (BAAQMD) and the San Mateo County Government, with additional funding anticipated through two separate grants from the Department of Energy (DOE). Recently, the major merchant gas company with which Hythane Company is working on this project, received grant funding for its hydrogen fueling station adjacent to the Hythane® station. This award is a significant boost to the Hythane® project as it makes low-cost hydrogen readily available at the site

### **2 Dual Fuel Kits**

Hythane Company has received strong interest in the OptiBlend® Dual Fuel Kit from a range of industries and has submitted a number of tenders / quotes. It is hoped that a portion of these will be crystallised into sales in the September quarter. The OptiBlend® Kit, which is the same as that currently being introduced into India, allows the conversion of a diesel generator to run on up to 70% natural gas. In addition to being a less expensive fuel, natural gas provides dramatic emission reductions over diesel fuel.

Noting the advantages of the OptiBlend® over other commercially available kits, many US dealers are now actively marketing the kit.

In late 2009, Hythane Company received its first US order for an OptiBlend® kit to be used as the US demonstration project and the installation was completed in December 2009. It is still awaiting installation of a new catalyst system after which EPA certification of the emissions reductions can be completed which will provide support for future marketing.

## **ENERGY PROJECTS**

### **UK Coal bed Methane, Conventional Natural Gas and Shale Gas Project**

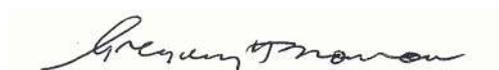
During the quarter, Centrica, the major UK gas company that acquired 90% of Eden's interest in the coal bed methane in four of its 18 licences and which is meeting all the costs of the next £500,000 of expenses, completed their review of all past work in the area and submitted a proposed budget and program which includes the drilling and testing of two joint ventures well sites in 2011. In this program site preparation works are to start in late 2010 or early 2011 to enable spud in the first half of 2011. Testing will necessarily overlap into 2012. It is planned to drill 2 or 3 wells at each well-site.

The total area over which the joint venture holds exploration licences is approximately 500,000 acres. Work is also progressing on the 14 other exploration licences in which Eden holds a 50% interest in Wales, Kent and Bristol/Somerset and which are all considered prospective for coal bed methane, conventional natural gas and also shale gas.

Discussions have also continued with our joint venture partner Coastal Oil & Gas (“Coastal”) with a view to possibly establishing a joint company as a highly resourced UK-based gas producer and these discussions resulted in a non-binding term sheet being signed. It is proposed that new joint company will in due course proceed to a public listing.

### **Australian Natural Gas and Geothermal Projects**

An Information Memorandum has been circulated to assist with trying to find a suitable partner or cornerstone investor to progress Eden’s geothermal interests. No activity occurred on Eden’s South Australian Natural Gas Play.



**Gregory H Solomon**

*Executive Chairman*

### ***About Eden Energy Limited***

Eden Energy Ltd is a diversified clean energy company that listed on the Australian Securities Exchange in June 2006. Eden has interests in hydrogen production, storage & transport fuel systems, including the low emission Hythane hydrogen-methane blend, coal seam & abandoned mine methane in the UK, conventional gas in SA, low temperature pyrolysis research into hydrogen production and geothermal energy production.

All these aspects of Eden's business are part of an integrated strategy to become a major global participant in the alternate energy market, particularly focussing on the clean energy transport market, producing hydrogen without any carbon emissions, transporting the hydrogen to markets & providing the engines to power hydrogen-based transport & energy solutions.

For further information please contact Greg Solomon (+61 8 9282 5889) or visit our website ([www.edenenergy.com.au](http://www.edenenergy.com.au)).

## Appendix 5B

### Mining exploration entity quarterly report

Introduced 1/7/96. Origin: Appendix 8. Amended 1/7/97, 1/7/98, 30/9/2001, 01/06/10.

Name of entity

EDEN ENERGY LTD

ABN

58 109 200 900

Quarter ended ("current quarter")

30 June 2010

#### Consolidated statement of cash flows

Cash flows related to operating activities	Current quarter \$A'000	Year to date (12 months) \$A'000
1.1 Receipts from product sales and related debtors	62	389
1.2 Payments for (a) exploration & evaluation	(119)	(302)
(b) development	-	-
(c) production	-	-
(d) administration	(211)	(897)
(e) other (see note below)	(597)	(2,561)
1.3 Dividends received	-	-
1.4 Interest and other items of a similar nature received	13	81
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Other (provide details if material)	-	-
<b>Net Operating Cash Flows</b>	<b>(852)</b>	<b>(3,290)</b>
<b>Cash flows related to investing activities</b>		
1.8 Payment for purchases of: (a) prospects	-	-
(b) equity investments	-	-
(c) other fixed assets	(7)	(9)
1.9 Proceeds from sale of: (a) prospects	-	-
(b) equity investments	-	370
(c) other fixed assets	-	1,000
1.10 Loans to other entities	-	-
1.11 Loans repaid by other entities	-	-
1.12 Other (provide details if material)	-	-
<b>Net investing cash flows</b>	<b>(7)</b>	<b>1,361</b>
1.13 Total operating and investing cash flows (carried forward)	<b>(859)</b>	<b>(1,929)</b>

#### Notes

1.2e Other - mainly relates to payments to suppliers and employees by Eden's wholly owned subsidiaries; Eden Energy India Pvt Ltd and Hythane Co LLC which are trading companies and these payments mainly consist of payments for cost of goods sold, research & development, inventory and overheads (in the September quarter ~\$163,000 related to one-off patent costs for the Pyrolysis Technology developed with the University of Queensland).

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**Appendix 5B**  
**Mining exploration entity quarterly report**

1.13	Total operating and investing cash flows (brought forward)	(859)	(1,929)
<b>Cash flows related to financing activities</b>			
1.14	Proceeds from issues of shares, options, etc.	-	-
1.15	Proceeds from sale of forfeited shares	-	-
1.16	Proceeds from borrowings	-	-
1.17	Repayment of borrowings	-	-
1.18	Dividends paid	-	-
1.19	Other (provide details if material)	-	-
<b>Net financing cash flows</b>		-	-
<b>Net increase (decrease) in cash held</b>		(859)	(1,929)
1.20	Cash at beginning of quarter/year to date	1,908	3,058
1.21	Exchange rate adjustments to item 1.20	(3)	(83)
1.22	<b>Cash at end of quarter</b>	1,046	1,046

**Payments to directors of the entity and associates of the directors**

**Payments to related entities of the entity and associates of the related entities**

		Current quarter \$A'000
1.23	Aggregate amount of payments to the parties included in item 1.2	133
1.24	Aggregate amount of loans to the parties included in item 1.10	-

1.25 Explanation necessary for an understanding of the transactions

Management Fees, as per agreement, were paid during the quarter to a company of which Mr GH Solomon and Mr DH Solomon are directors.  
Directors Fees paid during the period.  
Reimbursement of bona-fide expenses.  
Legal Fees were paid during the quarter to a firm of which Mr GH Solomon and Mr DH Solomon are partners.

**Non-cash financing and investing activities**

2.1 Details of financing and investing transactions which have had a material effect on consolidated assets and liabilities but did not involve cash flows

-

2.2 Details of outlays made by other entities to establish or increase their share in projects in which the reporting entity has an interest

-

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### Financing facilities available

	Amount available \$A'000	Amount used \$A'000
3.1 Loan facilities	-	-
3.2 Credit standby arrangements	-	-

### Estimated cash outflows for next quarter

	\$A'000
4.1 Exploration and evaluation	100
4.2 Development	-
4.3 Production	-
4.4 Administration	200
4.5 Other (see note below)	500
<b>Total</b>	<b>800</b>

#### Notes

4.5 Other - mainly relates to payments to suppliers and employees by Eden's wholly owned subsidiaries; Eden Energy India Pvt Ltd and Hythane Co LLC which are trading companies and these payments mainly consist of payments for cost of goods sold, research & development, inventory and overheads. Subsequent to the end of the quarter Eden received \$200,000 from a substantial debtor and \$94,168 in relation to a R&D Tax Rebate, neither of these have been included in the above estimated cash outflows.

### Reconciliation of cash

Reconciliation of cash at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts is as follows.	Current quarter \$A'000	Previous quarter \$A'000
5.1 Cash on hand and at bank	1,046	1,908
5.2 Deposits at call	-	-
5.3 Bank overdraft	-	-
5.4 Other (provide details)	-	-
<b>Total: cash at end of quarter (item 1.22)</b>	<b>1,046</b>	<b>1,908</b>

### Changes in interests in mining tenements

	Tenement reference	Nature of interest (note (2))	Interest at beginning of quarter	Interest at end of quarter
6.1	Interests in mining tenements relinquished, reduced or lapsed			
6.2	Interests in mining tenements acquired or increased			

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**Appendix 5B**  
**Mining exploration entity quarterly report**

**Issued and quoted securities at end of current quarter**

*Description includes rate of interest and any redemption or conversion rights together with prices and dates.*

	Total number	Number quoted	Issue price per security (see note 3) (cents)	Amount paid up per security (see note 3) (cents)
7.1 <b>Preference + securities</b> <i>(description)</i>				
7.2 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs, redemptions				
7.3 <b>+Ordinary securities</b>	181,705,673	181,705,673		
7.4 Changes during quarter (a) Increases through issues (b) Decreases through returns of capital, buy-backs	810,898 1,023,083	810,898 1,023,083	7.8 cents Nil	7.8 cents Nil
7.5 <b>+Convertible debt securities</b> <i>(description)</i>	NOT APPLICABLE			
7.6 Changes during quarter (a) Increases through issues (b) Decreases through securities matured, converted				
7.7 <b>Options</b> <i>(description and conversion factor)</i>	50,000 1,425,000 1,227,000 886,764 5,000,000 500,000 310,000 4,000,000 310,000 500,000	NIL NIL NIL NIL NIL NIL NIL NIL NIL NIL	<i>Exercise price</i> 31 cents 68.5 cents 45 cents 20 cents 10 cents 58.5 cents 20 cents 10.625 cents 20 cents 38.5 cents	<i>Expiry date</i> 15 March 2011 15 May 2011 30 June 2011 30 Nov 2011 31 Dec 2011 5 April 2012 14 May 2012 20 Nov 2012 14 May 2013 26 May 2013
7.8 Issued during quarter	886,764 310,000	NIL NIL	20 cents 20 cents	30 Nov 2011 14 May 2013
7.9 Exercised during quarter				
7.10 Expired during quarter				
7.11 <b>Debentures</b> <i>(totals only)</i>	NOT APPLICABLE			
7.12 <b>Unsecured notes</b> <i>(totals only)</i>	NOT APPLICABLE			

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## Compliance statement

- 1 This statement has been prepared under accounting policies which comply with accounting standards as defined in the Corporations Act.
- 2 This statement does give a true and fair view of the matters disclosed.

Sign here:

  
(Company secretary)

Date: 30 July 2010

Print name: Aaron Gates

## Notes

- 1 The quarterly report provides a basis for informing the market how the entity's activities have been financed for the past quarter and the effect on its cash position. An entity wanting to disclose additional information is encouraged to do so, in a note or notes attached to this report.
- 2 The "Nature of interest" (items 6.1 and 6.2) includes options in respect of interests in mining tenements acquired, exercised or lapsed during the reporting period. If the entity is involved in a joint venture agreement and there are conditions precedent which will change its percentage interest in a mining tenement, it should disclose the change of percentage interest and conditions precedent in the list required for items 6.1 and 6.2.
- 3 **Issued and quoted securities** The issue price and amount paid up is not required in items 7.1 and 7.3 for fully paid securities.
- 4 The definitions in, and provisions of, *AASB 1022: Accounting for Extractive Industries* and *AASB 1026: Statement of Cash Flows* apply to this report.

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