



# Eden Innovations Ltd (EDE)

## INITIATING REPORT: Innovation and growth...a strong combination

**\$0.22**

Andrew Williams

AWilliams@taylorcollison.com.au

+61 417 880 680

### Summary (AUD)

Market Capitalisation	\$276M
Share Price	\$0.22
52 week low (12-Jan-16)	\$0.041
52 week high (18-Apr-16)	\$0.345
Ave Monthly Vol (year rolling)	85.0M

### Key Financials – Quarterly data

Quarter End (A\$'000)	4Q15 Act.	1Q16 Act.	2Q16 Act.	3Q16 Act.
<b>Receipts (inc net int)</b>	<b>100</b>	<b>708</b>	<b>345</b>	<b>211</b>
Payments for R&D	(21)	(282)	(392)	(441)
Payments for operations	(1,083)	(902)	(773)	(1,484)
Payments for admin	(327)	(596)	(390)	(254)
<b>Net Operating Cashflow</b>	<b>(1,331)</b>	<b>(1,072)</b>	<b>(1,139)</b>	<b>(1,868)</b>
Net payments for PP&E	(33)	(326)	(125)	(685)
<b>Net Investing Cashflow</b>	<b>(33)</b>	<b>(326)</b>	<b>(125)</b>	<b>(685)</b>
Net proceeds from share issues	654	5,330	10,222	8,568
Change in borrowings	710	(1,931)		
<b>Net Financing Cashflow</b>	<b>1,364</b>	<b>3,399</b>	<b>10,258</b>	<b>8,568</b>
<b>Net Change in cash held</b>	<b>0</b>	<b>2,001</b>	<b>8,994</b>	<b>6,015</b>
<b>Cash at end quarter</b>	<b>610</b>	<b>2,531</b>	<b>11,249</b>	<b>17,252</b>
Expected spend next period				2,100

### Share Price Graph (AUD)



Source: Yahoo Finance

### Our View

The company has already undergone transformational change through 2016, increasing its capitalisation by ~4x...based on successfully lab and field trials for its EdenCrete™ product and securing inclusions as an accepted supplier from the State authorities of Georgia (US). The company has outlined a broad plan for growth, now commencing a rollout of plant construction that could see the company with 100mn US gallons of product capacity by 2023 with a revenue opportunity of US\$2.5bn. The company is, we feel on the cusp of an 'operational' transformational stage...the macro environment (increased infrastructure spending) is supportive and the commercial opportunities are there to win.

### Key Points

- INITIATING REPORT
- EdenCrete™ is ticking the boxes** – As a concrete additive based on carbon nanotube technology, EdenCrete™ offers improved strength and performance with cost benefits. As a new and innovative product, the company has been required to perform extensive lab and field trials over the last 12-15months delivering positive results. These results support EDE's applications for use with the Georgia Dept. of Transport (GDOT), which has now been added to the approved list. EDE has secured initial sales orders with GDOT and MARTA...and aims to piggy back this breakthrough into a broader penetration of the US transport and infrastructure segments.
- A construction plan targeting 100mn US gallons of capacity** – Management has outlined a rapid expansion strategy for EdenCrete™ production, targeting quantum increases in capacity to 100mn US gallons per annum by end-2023 (current base line 0.1mn US gallons). Importantly the estimated capital requirement is only some US\$130-135mn...by any measure this seems inexpensive supporting the speedy rollout.
- No financing concerns** – The company has successfully completed a number of equity capital raisings through 2016 and secured supporting funding (~US\$25mn) from the Georgia and Atlanta Economic Development Authorities. The company looks adequately financed through the early phase of construction and in a strong position, with early cashflow potential and debt capacity if required...the company has zero gearing. We cannot rule out further equity capital raisings but the staged construction timetable means the company is a good position to manage the process optimally.
- Difficult to value** – The valuation of pre-production assets or emerging development is always subjective. With no earnings guidance or commercial project details, we suggest the usual valuation methodologies cannot be used with any degree of confidence and would come with high associated error margins. At this stage the value of EDE can be considered 'intangible' but we think likely to crystallise as production capacity is completed and sales are secured through 2017 and into 2018.

## Eden Innovations Ltd – on the cusp of transformational growth

Eden Innovations (EDE.AX), previously Eden Energy describes itself as a ‘clean technology’ company with two research and development streams, broadly classified as Dual Fuel and; Hydrogen and Carbon Technology. Within those streams, the firm has developed and produced sales for two key products - **EdenCrete™** and **OptiBlend™** (dual fuel).

**Figure 1:** The Eden structure



Source: Company data.

The company has undergone a massive transformation over the last 12 months in business outcomes and outlook, divesting its residual UK gas assets to concentrate on its technology offerings with impressive results and commercial progress, particularly with the **EdenCrete™** product.

The progress has been reflected in the company’s capitalisation...increasing some 4x over the last 12 months or so from ~\$66mn (Nov-2015) to \$276mn (current) despite a number of capital raisings and increase in the share base of ~27%.

The company has continued to receive positive results from the laboratory and field testing of **EdenCrete™** product with an initial commercial order being received in 3Q’15 for sales into the US prefab concrete retail market and an infrastructure project with the Georgia MARTA (Metropolitan Atlanta Rapid Transit Authority) Bus garage.

### The outlook...the short-medium term opportunity is through EdenCrete™

The company is hoping that the securing of approvals for use by the Georgia Department of Transport DOT will catalyse and accelerate the process of obtaining similar approvals by the equivalent departments throughout the US. As per the Nov-2016 presentation the company has indicated it has commenced the approvals processes with other State’s Departments which could be finalised through 2017.

The company has a longer-term objective to become a stronger supplier of additive into the national infrastructure market.

EDE currently has over 20 trials underway across the US on infrastructure and non-infrastructure applications.

The company also has an aggressive and bold growth strategy for **EdenCrete™** looking to build production capacity (on a scalable model) to >100mn US gallons per annum by 2023, from the start up base of ~0.1mn US gallons in development.

Attempting to put a value on EDE at this stage is too difficult and likely to be encompass too great a margin for error given the uncertainties associated with growing a business from effectively ‘start-up’. We can only suggest EDE has the capacity to grow in a transformational fashion and very rapidly.

## Targeting a rapid expansion – growing the US business

The company has outlined a rapid expansion strategy for its **EdenCrete™** US business, looking to build capacity to 2.4mn US gallons in Colorado and ~100mn US gallons in Georgia by end-2023 with a revenue potential of >US\$2.5bn assuming all product can be sold and plant utilisation is high.

**Figure 2: EdenCrete™ scale up strategy – aggressive and surprisingly inexpensive**

Location	Est. Cost (US\$mn)	Output (US galls pa)	Revenue Potential (US\$ pa)*	Target completion date	Source of funds
Colorado <i>Stage-1</i>	Funded	~0.1mn	<b>\$2.7mn</b>	2Q'16	Equity
Colorado <i>Stage-2</i>	Funded	~2.4mn	<b>\$50-62mn</b>	1Q'17	Equity (A\$10.35mn placement @ 23cps)
Georgia <i>Stage-1a</i>	\$37mn	12.5mn	>\$310mn	end 1H'19	Equity (A\$15mn placement @ 18cps), cashflow, debt, incentives <sup>+</sup>
Georgia <i>Stage-1b</i>	\$35mn	50mn	\$1.25bn	2020-22	Cashflow
Georgia <i>Stage-2</i>	\$60mn	100mn**	\$2.5bn	2022-23	Cashflow

Source: Company data; [\* Revenue Potential based on pricing of US\$25/gallon; \*\* Aggregate production from all stages; + includes ~US\$25mn of local authority incentives]

Even allowing for delays, changes to the timeline; lower, more moderate plant utilisation of (say) 75% and perhaps some price reductions, the business potential is still transformative compared to the current state of the company.

What strikes us here is the extremely low cost of construction on a unit basis. Taking the Georgia plan in isolation, the anticipated capital costs to 100mn US gallons of capacity will be circa US\$130-135mn.

For EDE with proprietary ownership of the product, this is a uniquely positive position to be in. Notwithstanding the relatively low barrier to entry of the plant build, the low cost affords the company the opportunity to build a business position rapidly to take advantage of its product protection and head-start in the approvals process.

In many ways, the timing appears to be optimal with a recognition with the Federal US Government perhaps on the cusp of massive increase in infrastructure spending, still favourable labour markets and State Authorities prepared to offer incentives.

## EdenCrete™ - an innovate product with strong market upside

**EdenCrete™** is a proprietary formula, innovative in design and conceptually based on adding a carbon nanotube enriched liquid to a concrete mix to produce a building material with improved performance in many areas including strength, toughness and durability to deliver higher performance cost effective outcomes. The nanotube liquid is designed to act like (and replace) multiple additives currently used in concrete construction



EDE believes this technology delivers a product that is completely unique in the current market.

### How EdenCrete™ Works

Carbon fibre nanotube technology is not new in and off itself with extensively documented usage and applications across a diverse range of industries with recorded strengths above steel on a quantum basis in an absolute sense whilst delivering a significant weight saving advantage.

We cite the company notes for a more technical explanation of the product:

*“When added to concrete mixtures, **EdenCrete™** carbon nanotubes fill in spaces at the nanoscopic level between the hydrated cement particles. When (the) concrete dries, instead of leaving porous openings that would allow water to penetrate or cracks to develop, these nanotubes create millions of flexible, strong carbon bridges throughout the structure. These carbon bridges greatly improve resistance to failure caused by bending stresses, resulting in greater resistance to abrasive wear and crack propagation. In fact, not only does **EdenCrete™** make concrete stronger, we believe it can also increase concrete longevity beyond traditional expectations.”*

Source: edencrete.com

**EdenCrete™** has applications over an extensive number of construction activities as noted:

- **Water & Transportation**

The product has low permeability and high resistance to abrasion which is positive for ‘water’ related infrastructure projects (eg spillways, bridges, and reservoirs). As described by the company the denser concrete bond throughout the concrete “...reduces water absorption, preventing both cracking and steel corrosion”.

The high abrasion resistance also makes **EdenCrete™** ideal for highway construction, potentially extending the lifecycle and reducing maintenance costs. The Georgia Department of Transportation has conducted highway field tests, reporting positive outcomes.

- **Industrial & Precast**

Industrial projects demand exceptionally strong concrete slabs given the wide range of end-uses and range of construction requirements. **EdenCrete™** has been designed to deliver; and testing results support significant improvements in strength in every measurable area. The weight and strength benefits derived from using carbon nanotubes provide **EdenCrete™** with enormous advantages as a concrete additive for increasing tensile and flexural strength for concrete beams, walls and suspension slabs used in buildings.

**Figure 3:** Comparison between concrete additives - **EdenCrete™** ticks all the boxes

Additive	Increases Strength				Reduces		Drawbacks
	Compressive	Split-tensile	Flexural	Abrasion Resistance	Permeability	Shrinkage	
<b>EdenCrete™</b>	✓	✓	✓	✓	✓	✓	Nil
Fibres		✓	✓			✓	Reduces workability, difficult to handle
Shrinkage reducers						✓	Reduces strength, expensive, difficult to work
Steel reinforcing	✓					✓	Expensive, corrosion(?), increased weight
Surface hardener				✓	✓		Alkali-silica reactions
SI fume, fly ash	✓			✓	✓		Expensive, higher water, hard to handle
Steel fibres	✓						Reduces workability, difficult to handle

Source: Company data

As indicated by the company:

***EdenCrete™** has been through extensive research and development, laboratory testing; and field trials in different environments and projects around the globe. It has been vetted and allowed for use by the Georgia Department of Transportation for construction and maintenance projects in Class 24-Hour accelerated strength concrete mix applications and Class B concrete applications.*

Source: edencrete.com

Quantitative technical data can be found in the company's Nov-2016 presentation.

## The commercial opportunity - Georgia and US Infrastructure Market

EDE has been actively involved with the Georgia Department of Transport (GDOT) in the USA, undertaken testing and field trials of **EdenCrete™** have been conducted on the I-20 Highway (in Augusta) with highly encouraging results. The company has secured initial sales orders and recently was granted formal approval for use in construction and maintenance projects in the GDOT 24-hr accelerated strength concrete mix and B class concrete applications.

The State of Georgia itself provides transformational growth opportunities, the company being approved as a supplier for road repairs and in discussions with respect to bridge applications. As highlighted by the company:

- ~2,600 bridges are in need of repair or are functionally obsolete
- The GDOT has budgeted ~US\$1.5bn for transport infrastructure projects in fiscal 2017 with work to include:
  - >2,500 miles (>4,000km) of road re-surfacing
  - 118 bridge replacements and >300 bridge repairs
- MARTA spends US\$400mn annually on repairs and is planning a US\$2.6bn expansion of the light rail network.

Source: Nov-2016 Presentation (ASX release)

The company's aim is to piggy back this toehold into a broader penetration of the US markets.

The size of the US market is enormous with ~73,000km of Interstate Highways and >600,000 bridges...the State of Georgia itself has in excess of 15,000 concrete bridges (ranging from small to large) as noted by EDE. These infrastructure categories alone, consume almost 40%\* of all cement used in the USA annually.

\*According to the USGS cement statistics ([usgs.gov/minerals/pubs/commodity/cement](http://usgs.gov/minerals/pubs/commodity/cement)) the US consumed ~93mn tons (84mn tonnes) of product in 2015.

It's not simply the vast quantity of concrete used in the US, like many countries it's the deficient nature of the network and the need for urgent capital expenditures. As noted by the company the *"...size and state of repair of the US Interstate bridge and highway network; and enormous backlog in maintenance that remains to be carried out is a huge potential market for **EdenCrete™**".*

- 24% of bridges nationally are in need of repair or are functionally obsolete
- Cost to motorists ~US\$66bn
- The 'Surface Transportation Act' (2015) has earmarked US\$225bn for highway work over the next five years
- The President-elect has indicated infrastructure expenditure of US\$1Tr is required

Source: Nov-2016 Presentation (ASX release)

## OptiBlend™ - an upturn in oil and gas drilling could provide a kick-start

**OptiBlend™** technology is designed to replace diesel fuel with natural gas or other fuels by retrofitting to existing diesel generators, without modifications to the internal components or the fuel management system. The obvious result is to lower operational costs (cheaper fuel sources and; fuel transport and storage). Changing the fuel input should also generate significant environmental benefits by reducing emissions of NOx and CO<sub>2</sub>. **OptiBlend™** has also been shown to increase backup runtime.

As described by the company: *"...(one) the major strengths of **OptiBlend™** is its ability to safely handle large*

generator load swings without producing errors or shutdowns"...a critically important aspect when used in oil and gas drilling operations where uninterruptible power supply is a major requirement (especially offshore). The drilling market is a major end user target for the product.

Source: edeninnovations.com

The company has been moderately successful, securing orders for fifteen **OptiBlend™** dual fuel systems through FY16 year.

Progress on sales has been difficult due to the poor global market for drilling services as a result of the steep drop in world oil prices. Falling commodity prices has reduced the differential between diesel fuel and natural gas and the cost benefits have been significantly eroded.

Although there appears to be some sustainable recovery in oil prices, it's likely in our view that this will take time to catalyse a return to higher drilling activity. We suggest sales growth will be difficult to capture in the short to medium term, however, the industry will continue to look for cost benefits at the margin.

### India OptiBlend™ Progress

Through Eden's wholly owned Indian subsidiary, the company secured a tender to supply to Oil and Natural Gas Corporation Limited (ONGC) of India, eight **OptiBlend™** dual fuel kits for use on currently diesel powered generators used on drilling rigs it operates in India.

The value of the contract is >A\$240,000. We understand this deal represents the first that Eden (India) has secured with ONGC and we agree with the company's assessment that it is an encouraging development.

Unlike many countries (Australia, US, UK as examples) India is actively expanding its early stage domestic exploration for shale oil and gas, with ONGC as the leading participant in the drilling activity. EDE should be reasonably confident of further sales opportunities here as activity builds and (potentially) driven by success.

## Financials

The financials reflect the state of a company in transition, rolling out of a proof-of-concept period into an initial stage of expansion and securing of commercial contracts.

We note the trend in declining product sales, which to this point have been dependent on the **OptiBlend™** product and penetration into the oil and gas drilling markets., which have been in severe decline for the last two years or so. Despite the turnaround in oil prices evidenced recently, we suggest it will be sometime before this translates into sustainable growth in the drilling market.

**Figure 4a:** Recent summary profit/loss results (reporting currency A\$, Balance date 30-June)

A\$'000s	FY15	FY16	1Q'FY17*	
Revenue	1,947	1,207	209	Sales of <b>OptiBlend™</b>
Cash costs:	(3,707)		(2,079)	
<b>Proforma EBITDA</b>	<b>(1,757)</b>	<b>(3,324)</b>	<b>(1,868)</b>	
Non-cash costs	35	(64)		
<b>Proforma EBIT</b>	<b>(1,722)</b>	<b>(3,388)</b>		
Finance costs	(41)	(65)		
Tax benefit		140		
<b>Loss from continuing operations</b>	<b>(1,763)</b>	<b>(3,314)</b>		
Loss from discontinued operations	(3,736)	(27)		UK gas assets divested in 1H'FY16
<b>Total Loss</b>	<b>(5,499)</b>	<b>(3,341)</b>		
<b>Total Comprehensive Loss</b>	<b>(5,205)</b>	<b>(3,985)</b>		
EPS (cps)	(0.7)	(0.3)		

Source: Company data, [\*based on cashflow reporting for period 30-Sep]

With no profit guidance provided we can only project another loss for FY17 period based on the Sep-30 quarterly update.

**Figure 4b:** Recent summary balance sheet and cashflow results (reporting currency A\$, Balance date 30-June)

A\$'000s	FY15	FY16	1Q'FY17*
<b>Balance Sheet</b>			
Cash	506	11,249	
Inventories:	553	491	
<b>TOTAL Current Assets</b>	<b>1,846</b>	<b>12,005</b>	
PP&E	185	691	
Intangibles	1,805	3,009	
<b>TOTAL Non-current assets</b>	<b>1,990</b>	<b>3,807</b>	
<b>TOTAL Assets</b>	<b>3,836</b>	<b>15,812</b>	
Interest bearing liabilities	250		
Liabilities w assets held for sale	596		UK gas assets divested
<b>TOTAL Current liabilities</b>	<b>1,674</b>	<b>771</b>	
<b>TOTAL Non-current liabilities</b>			
<b>TOTAL Liabilities</b>	<b>1,674</b>	<b>771</b>	
NET ASSETS	2,161	15,041	
<b>Cashflow Statement</b>			
Receipts	2,132	1,183	209
Payments	(3,282)	(4,323)	
<b>Cash from Operations</b>	<b>(1,425)</b>	<b>(3,095)</b>	<b>(1,427)</b>
Purchase PP&E	(29)	(511)	(685)
Payments for R&D	(476)	(1,330)	(441)
<b>Cash from Investing</b>	<b>(505)</b>	<b>(1,874)</b>	<b>(1,126)</b>
Net share issues	1,983	16,278	8,568
Net borrowings	250	(185)	
<b>Cash from Financing</b>	<b>2,233</b>	<b>16,093</b>	<b>8,568</b>
Change in Cash	303	11,124	6,015
Cash at end of year	508	11,249	17,252

Source: Company data, [\*based on cashflow reporting for period 30-Sep]

Although the company has raised capital and is in the process of construction of the Colorado Phase 2 plant, the company's Balance Sheet largely reflects its cash position...with the intangible asset representing the remaining value (after amortisation and impairment) of the intellectual property rights to pyrolysis technology, **EdenCrete™** and **OptiBlend™**.

## A strong cash position...financing options looks ok.

The company is in a strong cash position, holding ~A\$17mn and having secured US\$24.76mn in financial assistance and incentives from the Georgia and Augusta Economic Development Authorities.

As outlined in Fig 2, EDE has indicated total funding (of up to US\$72mn) will be sourced from equity, incentives and debt...on the current cash balance with incentives, the company has largely secured ~US\$38mn (notwithstanding working capital requirements), which appears to be sufficient to cover Georgia Stage 1a as outlined.

With no debt, the company has borrowing capacity but likely will need to secure some significant contracts to underpin any facility, the timing of which is still somewhat uncertain.

We cannot rule out recourse to equity markets for further funding at this stage, but all things being equal would suggest this would be viewed favourably as development/growth capital, of nominally lower risk than R&D funding.

Specific details with respect to the funding assistance and incentives are outlined in the ASX release of 14-Apr-2016.

## Valuation...at this stage it's difficult to define

We quite often come across the issue of companies in pre-production or as emerging development stories. Placing a value on 'intangibles' is always highly subjective and definitely debateable. However, it seems obvious to us that with a unique product offering engineering and financial benefits, supported by State Authorities and on the cusp of plant construction, the company must hold a significant intrinsic value...although that is yet to be reflected in the financial statements.

With no management guidance, no details on how new plants will ramp up or likely margins, the usual valuation methodologies (NAV, comparative metrics or yield equivalence) **cannot be used with any degree of confidence and the associated error margins would be too high for us to be comfortable** at this stage.

The very much unique offering that EDE provides also precludes direct corporate comparisons. EDE's critical growth platform is **EdenCrete™**, a building material additive...a very specific end use but with potential sales in commercial and residential construction as well as road and other transport infrastructure.

A more tangible value for the company should begin to emerge over 2017 and through 2018 as the company completes its plant construction phase and (assuming) it begins to deliver sales contracts. We would suggest the business should make operating margins at least in line with the broader

## A risk assessment

A company in start-up still faces risks, particularly when it's simultaneously managing plant construction, State approvals processes, building sales and; continuing research and development.

**On plant rollout:** Timing, Government support, capex costs, technology (c-nanotube reactors), plant start-up and commissioning...all of which can impact to delay or otherwise change the project parameters. On the positive side, the low capex costs and short lead times (as indicated) would suggest the strategy could undergo impacts to costs and timing perhaps without materially altering the economics of projects.

**On sales and markets:** The outlook appears to be ideal for growth opportunity and establishing a production base, with strong projected expenditures on infrastructure projects throughout the US. We'd suggest the risks could run both ways, with as much potential for acceleration of work as deferral, but particularly when dealing with Government and Government Authorities, the tender and approvals processes can be time consuming.

We note also that the company is seeking product approvals for additional states for the **EdenCrete™** product...the timing and process remains uncertain and if it takes a prolonged period then the company will continue to rely dominantly on winning tenders in Georgia.

As a new product, the company will also need to navigate the path of product acceptance. Of course, the indicated operating and cost benefits could result in authorities wanting to accelerate trials. The acceptance of the product should become clearer through 2017-2018 and would be evidenced by the number of new approvals-for-use granted and sales trends.

**Competition:** The low capex costs whilst beneficial also lowers the barrier to entry from a capital perspective. Whilst we don't believe competing processes will emerge quickly, carbon-nanotube technology is a 'process' and demonstrating rapid growth and roll out, if associated with high margins will attract competition...perhaps not in the US but certainly through Asia, we'd suggest, perhaps limiting ex-US growth opportunities in the future.

**Financing:** We suggest the company has many financing options, particularly with no debt, but raising equity capital does come with associated risks and perhaps the next movements in interest rates we see (globally) will be upwards.



## Management and Board

The Board has been largely stable since listing in mid-2006 and as indicated currently holds ~4.5% of the ordinary capital of the company.

### Mr Gregory Solomon – Executive Chairman

Greg Solomon was appointed Chairman in 2004. He is a solicitor with more than 30 years' Australian and international experience in a wide range of areas including mining law, commercial negotiation and corporate law. He is a partner in the Western Australian legal firm, Solomon Brothers and has previously held directorships of various public companies since 1984.

Interest in Shares and Options	27.7 Ordinary Shares 13.1mn EDEO options
Directorships held in other listed entities	Tasman Resources Limited (TAS.AX) Conico Limited (CNJ.AX)

### Mr Douglas Solomon – Non-Executive Director

Douglas Solomon has been a Board member since May 2004. He is a Barrister and Solicitor with more than 20 years' experience in the areas of mining, corporate, commercial and property law. He is a partner in the legal firm, Solomon Brothers.

Interest in Shares and Options	23.6mn Ordinary Shares 11.5 EDEO options
Directorships held in other listed entities	Tasman Resources Limited (TAS.AX) Conico Limited (CNJ.AX)

### Mr Guy LePage - Non-Executive Director

Mr LePage was appointed to the Board in May 2004 and is currently a corporate adviser specialising in the resources sector. He is actively involved in a range of corporate initiatives from mergers and acquisitions, initial public offerings to valuations, consulting and corporate advisory roles. He previously spent 10 years as an exploration and mining geologist in Australia, Canada and the US.

Interest in Shares and Options	2.0mn Ordinary Shares 2.0mn EDEO Options
Directorships held in other listed entities	Tasman Resources Limited (TAS.AX) Conico Limited (CNJ.AX) Mt Ridley Mines Ltd (MRD.AX)

### Mr Richard Beresford – Non-Executive Director

Mr Beresford has been a Board member since May 2007. Mr Beresford has an engineering background and has > 30 years' experience in renewable energy and natural gas, including corporate experience with British Gas (now BG) in the UK and Indonesia, Woodside in Australia and China Light and Power (CLP) in Hong Kong. Mr Beresford has been a director and company chairman of several listed and unlisted companies.

Interest in Shares and Options	3.15mn Ordinary Shares 0.7mn EDEO Options
Directorships held in other listed entities	Liquefied Natural Gas Limited (LNG.AX)

## Disclaimer

The following Warning, Disclaimer and Disclosure relate to all material presented in this document and should be read before making any investment decision.

**Warning (General Advice Only): Past performance is not a reliable indicator of future performance.** This report is a private communication to clients and intending clients and is not intended for public circulation or publication or for the use of any third party, without the approval of Taylor Collison Limited ABN 53 008 172 450 ("Taylor Collison"), an Australian Financial Services Licensee and Participant of the ASX Group. TC Corporate Pty Ltd ABN 31 075 963 352 ("TC Corporate") is a wholly owned subsidiary of Taylor Collison Limited. While the report is based on information from sources that Taylor Collison considers reliable, its accuracy and completeness cannot be guaranteed. This report does not take into account specific investment needs or other considerations, which may be pertinent to individual investors, and for this reason clients should contact Taylor Collison to discuss their individual needs before acting on this report. Those acting upon such information and recommendations without contacting one of our advisors do so entirely at their own risk.

This report may contain "forward-looking statements". The words "expect", "should", "could", "may", "predict", "plan" and other similar expressions are intended to identify forward-looking statements. Indications of and guidance on, future earnings and financial position and performance are also forward looking statements. Forward-looking statements, opinions and estimates provided in this report are based on assumptions and contingencies which are subject to change without notice, as are statements about market and industry trends, which are based on interpretations of current market conditions.

Any opinions, conclusions, forecasts or recommendations are reasonably held at the time of compilation but are subject to change without notice and Taylor Collison assumes no obligation to update this document after it has been issued. Except for any liability which by law cannot be excluded, Taylor Collison, its directors, employees and agents disclaim all liability (whether in negligence or otherwise) for any error, inaccuracy in, or omission from the information contained in this document or any loss or damage suffered by the recipient or any other person directly or indirectly through relying upon the information.

**Disclosure:** Analyst remuneration is not linked to the rating outcome. Taylor Collison may solicit business from any company mentioned in this report. For the securities discussed in this report, Taylor Collison may make a market and may sell or buy on a principal basis. Taylor Collison, or any individuals preparing this report, may at any time have a position in any securities or options of any of the issuers in this report and holdings may change during the life of this document.

The preparation of this report was funded by ASX in accordance with the ASX Equity Research Scheme. This report was prepared by Taylor Collison and not by ASX. ASX does not provide financial product advice. The views expressed in this report do not necessarily reflect the views of ASX. No responsibility or liability is accepted by ASX in relation to this report."

**Analyst Interests:** The Analyst(s) may hold the product(s) referred to in this document, but Taylor Collison Limited considers such holdings not to be sufficiently material to compromise the rating or advice. Analyst(s)' holdings may change during the life of this document.

**Analyst Certification:** The Analyst(s) certify that the views expressed in this document accurately reflect their personal, professional opinion about the financial product(s) to which this document refers.

**Date Prepared:** December, 2016

**Analyst:** Andrew Williams

**Release Authorised by:** Hamish Nairn

Taylor Collison Limited  
Sharebrokers and Investment Advisers  
A.B.N. 53 008 172 450 AFSL No. 247083

Level 16, 211 Victoria Square  
Adelaide, South Australia, 5000  
G.P.O. Box 2046, Adelaide, South Australia, 5001  
Telephone: 08 8217 3900 Facsimile: 08 8231 3506  
Email: broker@taylorcollison.com.au

Level 10, 167 Macquarie Street  
Sydney, New South Wales, 2000  
G.P.O. Box 4261, Sydney, New South Wales, 2001  
Telephone: 02 9377 1500 Facsimile: 02 9232 1677  
Email: sydney1@taylorcollison.com.au

Participant of the Australian Securities Exchange Group  
www.taylorcollison.com.au  
ESTABLISHED 1928