

31 October 2017

Australia Securities Exchange Announcement

## Shareholder Update

### Pathway to success

Leaf Resources (ASX: LER) ('Leaf' or 'The Company') has taken further steps along the pathway to success with recent announcements highlighting our entry into the biodegradable packaging market and advancement towards the first commercial facility in Johor, Malaysia.

### Biodegradable packaging

Leaf Resources has secured an exclusive license for an innovative biodegradable coating product for the packaging market. The technology has been licensed from QUT bluebox, the commercial arm of the Queensland University of Technology (QUT) and was developed by a QUT research team that included Dr. Les Edye, now Leaf Resources' Head of Research and Development. The exclusive license with QUT bluebox covers the territories of North America, Canada, Malaysia, and Brazil.

#### Strategically ideal for Leaf Resources

This biodegradable coating is strategically advantageous for Leaf Resources as:

- It complements and enhances the economics of our Glycell<sup>TM</sup> process utilizing two of Leaf's core products, lignin and glycerol.
- With this license, Leaf will reposition the lignin produced from the Glycell<sup>TM</sup> process as a high value bio-based, renewable lignin barrier coating, instead of burning it as fuel.
- The product will be sold as a coating into the paper market where Leaf has strong industry contacts.
- Low cost entry to the market through the terms of the license agreement.
- No capital required for initial production as coating can be toll manufactured.
- Leaf personnel possess the relevant technical knowledge and skill.
- It could deliver short term cash flow to Leaf within the next 12 months.

**The biodegradable packaging market is large and growing.** The global Biodegradable Packaging Market was \$4.7 billion in 2015, growing at a CAGR of 17.2% and is expected to reach \$14.3 billion by 2022<sup>1</sup>. Leaf's market entry strategy will be directed towards three segments where the biodegradable coating has natural advantages.

- **Corrugated board market** - The biodegradable coating was developed to replace the traditional, petroleum based wax coatings and various plastic coatings used to waterproof the paper or cardboard.
- **Mulching markets:** Testing shows that barrier coating can replace black polyethylene as a mulch with additional benefits that it biodegrades to put beneficial carbon back in the soil.
- **Food & beverage packaging** - As a biodegradable, recyclable and renewable sourced natural product it is a potential solution to the coffee cup problem.

### Glycerol agreement

Leaf Resources recently announced an agreement with HB International, which will facilitate both the purchase of raw glycerol for input into our Glycell<sup>TM</sup> process and the sale of refined glycerol into the large refined glycerol market.

HB International was founded in 1986 and with headquarters in Paris and with offices in China, USA, India, Argentine, Malaysia and Singapore is one of the largest glycerol brokers in the world. Over the past couple of years, HBI has distributed about 400,000 tonnes of glycerol per annum. HB International have stated that they are confident, given their current annual volumes of sales, that they can sell 120,000 tonnes of refined glycerol at market prices when the project is operational.

### Hot 40

Leaf Resources has held its place in the top 10 of the **Hottest Emerging Companies in The Advanced Bioeconomy** having been voted number 9 in the 2017-2018 Top 40 at ABLC Next in San Francisco. ABLC Next is run by Biofuels Digest, the most globally recognised source of news in the Bioeconomy, with more than 2.3 million unique readers, roughly half of these in the US.

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<sup>1</sup> <http://www.prnewswire.com/news-releases/biodegradable-packaging---global-market-outlook-2015-2022-300234619.html>

## Malaysian financing pathway

Our development partners Claeris HoldCo, LLC have identified a pathway for advantage, off balance sheet finance for our first Malaysian project.

Malaysia, like many countries, runs an Industrial Collaboration Program (ICP) for large purchases over RM50 million. The purpose of the ICP programme is to create growth, jobs and technology transfer. The TDA Authority runs the programme for the Ministry of Finance and funds are generally used for projects that fulfil the Malaysian Government's national objectives. Currently approximately US\$11.2 billion is available in the ICP fund, which is expected to grow to US\$17.5 billion by 2020. Leaf Resources' Malaysian project is helping fulfil the National Biomass Strategy 2020 and as such enjoys strong government support from multiple government departments.

It is expected that financing through the ICP will:

- be structured as project financing utilising equity (from ICP) and debt;
- provide equity returns under the scheme which are capped; and
- multipliers are available for strategic project which incentivises the funders.

The benefit of this structure reduces the need for Leaf to raise a large amount of capital to fund the project. ICP finance could also enable Leaf to retain a substantial percentage of economic return on the project. Negotiations are underway with the TDA Authority and other relevant parties to secure approval for Leaf's project.

## Finance

The following comments should be read in conjunction with the attached Appendix 4C:

- The cash at the end of the quarter has been supplemented by receipt of \$646,000 in respect of its entitlement under the Research and Development Tax Incentive Program for the 2017 financial year in October 2017.
- The Company is planning a capital raising, the terms of which are yet to be finalised.

## Board changes

Dr. Jay Hetzel has announced that after 7 years as a board member and 6 years as Chairman he will be resigning his position at the end of March 2018. Jay's contribution has been significant and his leadership has taken the company to the within touching distance of commercialisation.

*Dr. Hetzel commented:*

"Leaf has pivoted from a company with an aspiration of producing pharmaceutical proteins in plants to an enterprise with a clear commercial path to building multiple biorefineries for the production of high value renewable sugars and chemicals from a range of biomass feedstocks. It has been a transformation of which the Leaf team and I can feel justly proud."

Leaf has announced that Mr Doug Rathbone will take over as Chairman on the 1<sup>st</sup> April 2018. Doug has considerable experience in chemical markets having been Managing Director of Nufarm for 20 years and taking that company from \$20 million to \$2 billion in sales.

As detailed below Mr. Alex Baker will join the board from the 1<sup>st</sup> February 2018.

### **Staff changes**

Alex Baker, Leaf's Chief Operating Officer will be resigning his executive role at the end of December. Over the past six years, Alex has lead the development of the Glycell™ process and established many of the valuable partnerships that we now have in place. Furthermore, he has been instrumental in integrating the various processes required for an efficient biorefinery. Leaf Resources will retain Alex's technology insights and industry knowledge through him becoming a Non-Executive Director from the 1<sup>st</sup> February 2018.

The Company's senior process engineer Brian O'Neill, will transition from a consulting role to a full-time employee. Brian joined Leaf after 6 years in biofuel and biochemical production process development and scale-up. He is experienced with chemical and materials processing across a broad spectrum of wet and dry processes and has worked for multiple process technology developers. He has expertise in process development and optimization, scale-up from lab to commercial, equipment design, process integration, project management, facility start-up, and high-volume processing and manufacturing operations. He holds a Bachelor of Science in Mechanical Engineering from Michigan Technological University with minor studies in materials and metallurgical engineering.

Leaf Resources is now at a point of time where the technology is largely developed. Going forward, a depth of engineering skills is required to enable the building of our first facility and Brian brings considerable applicable engineering skills to Leaf. We will look to recruit a new Chief Operating Officer in February next year.

## Summary

Leaf Resources is strongly positioned for both short and long-term success. Our strategy is clearly articulated and supported by numerous collaborative partnerships, industry recognition and technology advances. We have further consolidated our position within the bio-economy as we seek to rapidly enter the biodegradable packaging market and commercialise our first plant in Malaysia.

## About Leaf Resources Ltd (ASX: LER)

Leaf Resources is one of the world's leading companies in converting plant biomass into fermentable sugars. Our proprietary process for converting biomass-to-functional industrial sugars enable a myriad of downstream technologies for the production of renewable chemicals that will substitute petrochemicals used in manufacturing today. With our project development and continued technical innovation we are building a robust global business centered on renewable carbon containing products to deliver environmental and economic benefits to our shareholders and our planet. More on [www.leafresources.com.au](http://www.leafresources.com.au)

### Contacts:

Ken Richards (Managing Director)  
Jay Hetzel (Chairman)

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## Appendix 4C

### Quarterly report for entities subject to Listing Rule 4.7B

Introduced 31/03/00 Amended 30/09/01, 24/10/05, 17/12/10, 01/09/16

**Name of entity**

LEAF RESOURCES LIMITED

**ABN**

18 074 969 056

**Quarter ended ("current quarter")**

30 September 2017

<b>Consolidated statement of cash flows</b>	<b>Current quarter \$A'000</b>	<b>Year to date (3 months) \$A'000</b>
<b>1. Cash flows from operating activities</b>		
1.1 Receipts from customers	-	-
1.2 Payments for		
(a) research and development	(197)	(197)
(b) product manufacturing and operating costs	-	-
(c) advertising and marketing	-	-
(d) leased assets	-	-
(e) staff costs	(333)	(333)
(f) administration and corporate costs	(435)	(435)
1.3 Dividends received (see note 3)	-	-
1.4 Interest received	1	1
1.5 Interest and other costs of finance paid	-	-
1.6 Income taxes paid	-	-
1.7 Government grants and tax incentives	-	-
1.8 Other (provide details if material)	-	-
<b>1.9 Net cash from / (used in) operating activities</b>	<b>(964)</b>	<b>(964)</b>

<b>2. Cash flows from investing activities</b>		
2.1 Payments to acquire:		
(a) property, plant and equipment	(4)	(4)
(b) businesses (see item 10)	-	-
(c) investments	(391)	(391)

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.2	Proceeds from disposal of:		
	(a) property, plant and equipment	-	-
	(b) businesses (see item 10)	-	-
	(c) investments	-	-
	(d) intellectual property	-	-
	(e) other non-current assets	-	-
2.3	Cash flows from loans to other entities	-	-
2.4	Dividends received (see note 3)	-	-
2.5	Other (provide details if material)	-	-
2.6	<b>Net cash from / (used in) investing activities</b>	<b>(395)</b>	<b>(395)</b>

<b>3.</b>	<b>Cash flows from financing activities</b>		
3.1	Proceeds from issues of shares	1,666	1,666
3.2	Proceeds from issue of convertible notes	-	-
3.3	Proceeds from exercise of share options	-	-
3.4	Transaction costs related to issues of shares, convertible notes or options	(21)	(21)
3.5	Proceeds from borrowings	-	-
3.6	Repayment of borrowings	-	-
3.7	Transaction costs related to loans and borrowings	-	-
3.8	Dividends paid	-	-
3.9	Other (provide details if material)	-	-
3.10	<b>Net cash from / (used in) financing activities</b>	<b>1,645</b>	<b>1,645</b>

<b>4.</b>	<b>Net increase / (decrease) in cash and cash equivalents for the period</b>		
4.1	Cash and cash equivalents at beginning of quarter/year to date	574	574
4.2	Net cash from / (used in) operating activities (item 1.9 above)	(964)	(964)
4.3	Net cash from / (used in) investing activities (item 2.6 above)	(395)	(395)
4.4	Net cash from / (used in) financing activities (item 3.10 above)	1,645	1,645

Consolidated statement of cash flows		Current quarter \$A'000	Year to date (3 months) \$A'000
4.5	Effect of movement in exchange rates on cash held	-	-
4.6	<b>Cash and cash equivalents at end of quarter</b>	<b>860</b>	<b>860</b>

5.	Reconciliation of cash and cash equivalents at the end of the quarter (as shown in the consolidated statement of cash flows) to the related items in the accounts	Current quarter \$A'000	Previous quarter \$A'000
5.1	Bank balances	860	860
5.2	Call deposits	-	-
5.3	Bank overdrafts	-	-
5.4	Other (provide details)	-	-
5.5	<b>Cash and cash equivalents at end of quarter (should equal item 4.6 above)</b>	<b>860</b>	<b>860</b>

**6. Payments to directors of the entity and their associates**

- 6.1 Aggregate amount of payments to these parties included in item 1.2
- 6.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 6.3 Include below any explanation necessary to understand the transactions included in items 6.1 and 6.2

**Current quarter  
\$A'000**

156

-

Payments to Directors consist of directors' salaries, fees and consulting fees for the quarter, including superannuation. This excludes any amounts that were unpaid as at the end of the quarter.

**7. Payments to related entities of the entity and their associates**

- 7.1 Aggregate amount of payments to these parties included in item 1.2
- 7.2 Aggregate amount of cash flow from loans to these parties included in item 2.3
- 7.3 Include below any explanation necessary to understand the transactions included in items 7.1 and 7.2

**Current quarter  
\$A'000**

-

-



8. <b>Financing facilities available</b> <i>Add notes as necessary for an understanding of the position</i>	Total facility amount at quarter end \$A'000	Amount drawn at quarter end \$A'000
8.1 Loan facilities	-	-
8.2 Credit standby arrangements	-	-
8.3 Other (please specify)	-	-
8.4 Include below a description of each facility above, including the lender, interest rate and whether it is secured or unsecured. If any additional facilities have been entered into or are proposed to be entered into after quarter end, include details of those facilities as well.		

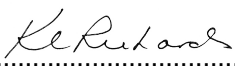
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9. <b>Estimated cash outflows for next quarter</b>	\$A'000
9.1 Research and development	455
9.2 Product manufacturing and operating costs	-
9.3 Advertising and marketing	-
9.4 Leased assets	-
9.5 Staff costs	376
9.6 Administration and corporate costs	272
9.7 Other (provide details if material) (further investment in overseas subsidiary (\$336) and GST (\$28))	364
<b>9.8 Total estimated cash outflows</b>	<b>1,467</b>

10. <b>Acquisitions and disposals of business entities (items 2.1(b) and 2.2(b) above)</b>	Acquisitions	Disposals
10.1 Name of entity		
10.2 Place of incorporation or registration		
10.3 Consideration for acquisition or disposal		
10.4 Total net assets		
10.5 Nature of business		

### Compliance statement

- 1 This statement has been prepared in accordance with accounting standards and policies which comply with Listing Rule 19.11A.
- 2 This statement gives a true and fair view of the matters disclosed.

Sign here:  Date: 31 October 2017  
(Director)

Print name: Ken Richards

### 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 that wishes to disclose additional information is encouraged to do so, in a note or notes included in or attached to this report.
2. If this quarterly report has been prepared in accordance with Australian Accounting Standards, the definitions in, and provisions of, *AASB 107: Statement of Cash Flows* apply to this report. If this quarterly report has been prepared in accordance with other accounting standards agreed by ASX pursuant to Listing Rule 19.11A, the corresponding equivalent standard applies to this report.
3. Dividends received may be classified either as cash flows from operating activities or cash flows from investing activities, depending on the accounting policy of the entity.