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Australian Securities Exchange Announcement

Leaf completes prefeasibility study on second-generation commercial biorefinery in QLD

Leaf Resources Limited (ASX: LER) is pleased to announce that it has completed a prefeasibility study on a second-generation commercial biorefinery in Queensland. The study assessed plans to develop a bio-manufacturing hub in a sugar-cane producing region of Queensland.

The proposed biorefinery would use Leaf's patented Glycell™ technology to speed up and reduce the cost of converting plant waste, in this case sugarcane fibre, into sustainable chemicals, biofuels and bioplastics. Leaf is commercialising the proprietary Glycell™ method using glycerol to enhance the recovery of valuable sugars and lignin in an acid hydrolysis pre-treatment of lignocellulose.

There are currently 12 million bone dry tonnes of available biomass produced in Queensland with more than 90% of this material from the sugar cane industry, of which 80% resides in North Queensland. It was found that 94% of mills in the vicinity could provide biomass to Leaf based on biomass figures currently collected.

As part of the prefeasibility study, the company explored Queensland-based locations for the proposed biorefinery and focused on one brownfield site and one greenfield site in the North Queensland region.

Following the completion of the prefeasibility study it was found that both sites present similar risks and opportunities. Of significance, it was also noted that both sites would notably benefit from cane cleaning technology due to lower production costs and greater yield of sugar per hectare. The project showed profitability was achievable for material that currently has no value in the sugar cane industry.

Leaf's world-leading technology has the potential to attract other biorefinery companies to the state, seeking the industrial sugars produced by the technology. Furthermore, given that there is minimal appetite for investment in the sugar industry in Australia due to international competition, colocation with this industry opens the door for a renewed investment with value adding across the entire chain of the sugar industry.

The study also found that there is an economically attractive proposition for the development of a biorefinery based on Glycell™ technology using biomass from the sugar cane industry. It was noted that there is enough biomass in the form of bagasse or cane trash to facilitate several ligno-cellulosic initiatives without the risk of the biomass being commoditised, resulting in unprofitable ventures.

Leaf Resources CEO Alex Baker said the study highlighted enough potential for Leaf to move forward on next steps.

“With an abundance of biomass in Queensland and potential economic and environmental benefit for several parties, we are eager to further investigate the next phase of a proposed biorefinery project in the state”.

Leaf was able to embark on validation works and the prefeasibility study due to funding from the Queensland Government's Biofutures Acceleration Program.

Minister for State Development, Manufacturing, Infrastructure and Planning Cameron Dick said it was encouraging to hear Leaf planned to further investigate the development of a biorefinery in regional Queensland.

“The Palaszczuk Government is pleased to have funded the validation works and prefeasibility study for a proposed Queensland biorefinery project by Leaf Resources through our Biofutures Acceleration Program,” Mr Dick said.

“Queensland offers an abundance of feedstocks such as agricultural and forestry by-products, making it an attractive investment location for companies looking to produce sustainable chemicals, fuels and plastics.

“Our Biofutures Acceleration Program aims to attract and support the development of new and expanded commercial-scale biorefinery projects in Queensland.

“The Palaszczuk Government is investing in more ideas and more industries like biofutures to create more jobs for our state.”

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About Leaf Resources Ltd (ASX: LER)

Leaf Resources is one of the world's leading companies in converting plant biomass into industrial 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

Contacts:

Alex Baker (Managing Director)
Douglas J Rathbone (Chairman)

M: +61 419 028 372
M: +61 411 258 987