

Australian Securities Exchange Announcement

23 December 2013

Actinogen Collaboration

Leaf Energy Ltd has today signed an agreement with Actinogen Ltd to collaborate on certain bacterial strains from the *Actinomycetes* family that are relevant to Leaf Energy's Glycerol Pretreatment Process. Leaf Energy is interested in these *Actinomycetes* strains as it believes that they have the potential to add value to Leaf Energy's Glycerol Pretreatment process in two ways: Firstly, the *Actinomycetes* strains grow on glycerol as a feedstock. Secondly they have been shown to produce enzymes (Cellulases and Lignases) that may be useful in the Glycerol Pretreatment Process or generate valuable products (e.g. Shikimic Acid) that can add to the economics of the process.

Under the terms of the agreement Leaf Energy will spend up to \$100,000 (minimum \$20,000) on progressing the work already undertaken by Actinogen.

Once the preliminary work is done, and if the research has progressed to Leaf Energy's satisfaction, then Leaf Energy has an option to continue the work in ways that will benefit its process and objectives. If the trials are successful (as determined by Leaf Energy) then Leaf Energy can request an exclusive license to the background IP and the IP developed through the collaboration in return for a royalty on profits.

The *Actinomycetes* strains relevant to Leaf Energy's interests are protected by the Budapest Treaty, which prevents anyone else from using the same *Actinomycetes* strains without consent for a minimum of 30 years from lodgment.

Actinogen has progressed work on the three strains and/or areas of interest to different levels:

- the *Actinomycetes* strain that produces cellulases has been tested externally by the CSIRO at a 10 litre volume with encouraging results.
- work on the production of Lignases and Shikimic acid is at a very early stage having only been progressed in the laboratory at a molecular level.

The initial trials will be conducted at Murdoch University in Actinogen's new laboratory facility by their scientific team under direction from Leaf Energy.

About Leaf Energy (ASX:LER)

Leaf Energy is an Australian company with a simple vision, turning waste biomass into biofuels, bioplastics and green chemicals with a clean, green, sustainable process – the Glycerol Pretreatment Process. This process is an innovative, but simple pretreatment technology that uses a cheap, reusable, effective reagent being Glycerol, to break down the biomass into cellulose, hemicellulose and lignin at low temperature and atmospheric pressure. The cellulose and hemicellulose are then available for conversion to sugars using enzymatic hydrolysis and those sugars can then be converted to biofuels, bioplastics and renewable chemicals. The process has significant advantages over current pretreatments being used such as steam explosion.

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