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Qponics begins upgrade to pilot algae farm in Brisbane

Site preparation (image below) commenced on 26 November to upgrade the existing R&D-scale pilot



farm on University of Queensland land at Pinjarra Hills into a facility capable of demonstrating small-scale commercial production of high-value EPA omega-3 from algae. Key features of the upgrade include (a) a new fully lined 65m x 12.5m raceway pond with 400mm high sandstone block walls, (b) an automated algae harvesting process (ultrafiltration system plus centrifuge), (c) water tanks to store water during processing, (d) solar panels and battery storage to power the site, (e) a large shed to house the harvesting system and support the solar system, and (f) an algae

paste pelletiser and dryer. It is anticipated that the upgraded pilot algae farm will be fully operational by March 2019.

These activities are supported by Qponics' \$1 million Cooperative Research Centre Project grant.

Qponics plans to build a large-scale algae farm on its selected site in Ballina NSW during 2019, constructing multiple raceway algae production ponds each with dimensions of 250m x 16m. The purpose of the upgrade to the pilot algae farm is to test the integration of the new ¼-scale raceway pond with the automated flow of ultrafiltered tidal river water firstly into the farm and multiple recycling of the water during the algae harvesting process. This will have direct relevance to the critical matter of managing water flow of millions of litres at large-scale and the knowledge gained from the expanded pilot farm is expected to substantially assist the commissioning of Qponics' full size algae farm at Ballina.

An algae oil extraction system is planned to be installed later during the upgrade. It is also planned to install a natural gas power generator to demonstrate production of (i) continuous electric power, (ii) clean carbon dioxide from the exhaust (2 tonnes of CO₂ are consumed for every tonne of algae produced), and (iii) heat to be redirected to the dryer.

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