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Qponics Update – 3 June 2019

Progress in upgrading the algae farm in Brisbane

The 24-kW solar panel array has been installed on the roof of the new shed, adjacent to the new algae pond, and the inverters plus multiple batteries to store the power have been installed inside the shed and is now functioning (images below). This system was selected to ensure that the upgraded algae farm can operate 24 hours a day, accommodating peak power loads when several water pumps and the algal centrifuge switch on. The site is off-grid and the solar plus battery option was about 25% of the cost of extending the 3-phase power line to the farm from the nearest point 500m from the site.

The new Liqoflux specialised algae ultrafiltration system with two capillary Liqocap filters arrived in Brisbane from the Netherlands in May, cleared Australian Customs, delivered to the site (images below), and has since been positioned in the shed. A large-scale automated specialised algae centrifuge is planned to be installed next to the ultrafiltration equipment to complete the automated algae harvesting system.

The ultrafiltration system will have two uses: (1) to clean the brackish river water to remove all microorganisms including viruses before it is used in the algae ponds; and (2) during harvesting to pre-concentrate the algae-laden pond water 20-fold prior to flowing into the centrifuge for final concentration into a dense paste. During harvesting, the clean ultra-filtered water is temporarily stored until it is recycled to the pond to allow growth of algae to resume.

Dr Graeme Barnett
Chief Executive Officer and Managing Director