

Coal Power Plants to Feed Algae Biofuel Reactors

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Los Angeles, CA — OriginOil, Inc. (www.originoil.com), the developer of a breakthrough technology to transform algae, the most promising source of [biofuels](#) (1), into a true competitor to petroleum, today announced that industry leader [M&D Energy](#) (2) Limited has become the company's first algae-producing customer. Anglo American, one of the world's largest mining companies, is a cornerstone investor in M&D Energy.

The parties recently signed a Memorandum of Understanding on a multi-phase commercialization program under which OriginOil will supply M&D Energy, an Australia-based company, with its Quantum Fracturing™ and Single-Step Extraction™ systems. Andrew Lawson, Managing Director of M&D Energy, said: "We are delighted to become OriginOil's first major customer and we look forward to working with the OriginOil team to forge a comprehensive commercial relationship with game-changing potential in the exciting third-generation biofuels space."

Three of Australia's largest coal-fired power generators have committed to building test facilities adjacent to their power stations using M&D's proprietary growth system, the [Quantum Fracturing™](#) (3) where smoke-stack CO₂ emissions are captured and used to grow oil-rich algae in solar bioreactors. This process effectively achieves BECCS (Carbon Capture and Storage). In the full production systems, OriginOil's technology will be integrated into the M&D system to enhance algae growth and perform oil extraction.

In the initial phase, OriginOil will equip M&D Energy's research and development facility at James Cook University in Queensland, Australia, where testing will take place. The two companies agreed that, subject to the success of the initial test phase, M&D will purchase significantly larger testing and OriginOil extraction units to serve facilities planned for its three Algae Synthesizer power station projects in Australia: Tarong Energy (Queensland), Loy Yang A (Victoria) and Eraring Energy (New South Wales).

Pippo Eckelberry, OriginOil CEO said: "We have been looking for a partner with the resources and scaling capabilities to rapidly industrialize algae production with a focus on the long-term development of our industry. We are delighted to have found this partner in M&D Energy." Eckelberry added, "Many thanks go to M&D's Larry Simons and Enrico Bombardieri, and our own Dr. Patarkine, for their vision and persistence in making this partnership possible."

Queensland Premier Anna Bligh officially opened M&D's expanded R&D facility in November 2009. Premier Bligh said: "The revolutionary algae carbon capture and storage (BECCS) technology is already proving successful in trials and will soon be rolled out at three coal-fired power stations, including Tarong Power Station near Kingaroy. This technology has the potential to revolutionize carbon capture in Queensland and around the world." She added: "As our state continues to grow and coal remains a key export, it is essential that we devise new ways to manage the impact of that growth on our environment."

The Queensland Premier also announced that M&D would shortly commence construction of a one-hectare pilot plant at South Eastern Queensland's Tarong Power Station. The trial aims to capture 700 tonnes of carbon dioxide annually and, if successful, could expand over the next 5 to 10 years to consume more than half of Tarong's problem flue-gas emissions.

M&D's Andrew Lawson said that each of the three current M&D power station projects has the potential to then grow to 80-hectare commercial plants, each capable of producing 11 million liters of oil for plastics and transport fuel, and 25,000 tonnes of drought-proof animal feed annually. He said that the projects will eventually consume more than half of each of the power station's problem flue-gas emissions.

OriginOil's Quantum Fracturing System breaks down nutrients such as CO₂ into micro-particles that stay suspended in water longer, allowing algae to feed more efficiently. The Single-Step Extraction system is the first commercial "wet" extraction system, able to separate algae oil from its biomass without costly and energy-intensive dewatering operations.

For more information, visit www.originoil.com (5)

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