

magniX awarded \$2.5 million Federal Government Grant to develop electric aircraft engine

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An innovative Australian development program led by magniX, a Queensland-based company pioneering high density electric motors for aircraft propulsion, has been backed by a \$2.5 million grant from the Australian Government.

magniX today announced it had received the grant for its now fully-funded \$12 million project in collaboration with the University of Queensland and Ferra Engineering to develop high power density motors, incorporating advanced manufacturing methods.

Managing Director of magniX, Dr Jason Chaffey said electric propulsion of aircraft is widely regarded as the future of the industry and a key market opportunity.

"Currently the aircraft industry lacks an electric motor with the required power density to replace fossil fuel motors. Lightweight and power dense motors are needed to make this a reality and magniX has unique capabilities and proven intellectual property in this area. The government funding will allow us to accelerate our ambitious commercial program," Dr Chaffey said.

The research project will optimise motor design, thermal management and advanced materials to manufacture a motor with a power density exceeding 5kW/kg – critical to advancing electrification of aircraft.

Dr Chaffey said magniX was fortunate to have highly skilled and experienced partners working on the project. The University of Queensland has skills, expertise and facilities in composite material and thermal simulation, while Ferra Engineering has advanced manufacturing and existing relationships with the aerospace industry.

Managing Director of Ferra Engineering, Mark Arthur, said that the company is excited to be part of such an innovative and cutting edge opportunity.

"magniX is an extremely impressive company with a product that will revolutionise the aircraft industry. We are excited about the opportunity to participate in the manufacture and testing of the power dense motor, and look forward to contributing to this game changing technology".

Dr Chaffey said there was significant global demand for aircraft powered by electricity.



“With \$246 billion spent globally on fuel for civilian and military aircraft each year, there is a lot of interest in electric aircraft given the potential for lower fuel consumption and operating costs. Both Airbus and NASA are currently working on their own electric aircraft projects.”

magniX has a working prototype of this power dense model. The project will extend and advance the current design through material, electromagnetic and thermal investigations to design and manufacture a new motor with a power density in excess of 5kW/kg.

The funding has come in the latest round of the Federal Government’s Cooperative Research Centres Projects (CRC-P). The CRC Programme has a long history of developing real world solutions to improve the competitiveness, productivity and sustainability of Australian industries.

The Programme fosters high quality research to solve industry-identified programmes through industry-led and outcome focused collaborative research partnerships between Australian industry entities and research organisations.

About magniX

A subsidiary of Heron Energy, magniX is a privately-owned company based in Queensland which develops and commercialises advanced, power dense and energy-efficient motors and generators. It is leading energy innovation by redefining power density and efficiency. Through its magniflux™ technology, applied to superconducting and permanent magnet motors and generators, magniX is capable of scaling its technology to meet electrical generation and torque requirements for sustainable commercial transport and industry. For more information, please visit: www.magniflux.com or contact us at sales@magniflux.com

