



Climate Ready- Round One Funding Offers

Org State	Applicant Organisation	Project Full Title	Project Description	Grant Amount
NSW	Smart Storage Pty Ltd	UltraBattery Storage for Cyclic Renewable Energy	A significant inhibitor in the uptake of alternative energy sources such as wind or solar power is the intermittent ability of these sources to generate power. This intermittent behaviour is being largely tolerated while wind and solar are small contributors to grid networks. However, for smaller grid systems, isolated communities, or small systems at the end of long transmission lines, it is necessary to include some form of energy storage. The most cost-effective current solution is lead-acid battery technology.	345,000
NSW	Thompson Couplings Limited	The project is to prove that the Thompson Coupling can reduce energy consumption in specific industrial applications	Reduce electrical energy consumption and greenhouse gas emissions in paper rolling mill applications through the use of the Australian Patented energy efficient Thompson Coupling.	102,484
NSW	Z-Filter Pty Ltd	Filtration Technology for Waste Separation	Z-Filter's patent-pending tubular, membrane system enables a fundamental change to filtering and processing liquids. Z-Filter processes very large volumes in a low cost, energy efficient manner, creating significant environmental benefits.	500,000
NSW	Oceanlinx Limited	Oceanlinx Mk3PC - Pre-Commercial Wave Energy Conversion Device	Oceanlinx will develop, build and trial a pre-commercial, new generation wave energy conversion device in Port Kembla, NSW. The trialling of this unit will enable commercial designs and installations in Australia and around the world promoting Australia's leadership position in tackling climate change. The implementation of Oceanlinx technology is projected to reduce emissions of CO2 by 1.2 million tonnes each year by 2017.	2,949,468
NSW	BT Imaging Pty Ltd	Development of innovative luminescence imaging system to revolutionise solar cell manufacture; reduce costs, increasing performance and foster widespread consumer adoption of solar energy.	Development of innovative luminescence imaging system to revolutionise solar cell manufacture; reduce costs, increasing performance and foster widespread consumer adoption of solar energy.	3,624,897

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NSW	Evolution Tankers Pty Ltd	Lightweight and Versatile Semitrailer Tanker	The project is the research & development and prototyping of a lightweight and versatile semitrailer tanker made from carbon fibre composite material for the bulk transport of a wide range of liquids.	494,771
QLD	Geoteknic Pty Ltd	Geoteknic Coal Seam Methane Testing, Monitoring & Control System.	Our project is aimed at helping Coal Mine and Coal Seam Methane companies optimise development of their gas resources and reduce emissions during production. By developing a low cost technology for monitoring down-hole and surface production that can be applied in every well, we can detect gas and water levels to optimize pump rate and reduce gas in the water production, which would be lost to atmosphere. The same technology applied to exploration wells can determine how the reservoir is reacting to production and allow optimization of the field development, minimizing the number of wells needed for efficient drainage, reducing the footprint, and costs, of the operations	328,625
QLD	Winns Folly Pty Ltd	The Winn's Water Saver- an inexpensive and simple automatic hot-water supply dead-water diverter.	Development of The Winn's Water Saver - an inexpensive and simple automatic hot-water supply dead-water diverter.	100,400
QLD	Cannavan Cane Technology Pty Ltd	New technology double-row cane harvesting system	Cannavan Cane Technology will develop a light weight, high-capacity double-row sugar cane harvester with a new cane chopping system and new method of transferring cane to truck. The new double-row design will double the capacity of regular harvesters, improve efficiency and productivity through significant reductions in fuel, maintenance and labour costs per tonne and reduced sugar losses in the harvesting process. Climate change effects are reduced by halving the diesel fuel consumed per harvested tonne; by collection of additional biomass for electricity generation and ethanol production; and by reduction of soil compaction and erosion, important in high rainfall areas with increased storm activity.	298,750

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QLD	RTI Pty Ltd	Development of a High Precision Non-Continuously-Radioactive Online Coal Elemental Analyser	Real Time Instruments intends to develop a new type of coal analyser. The analyser will use sophisticated mineral analysis technologies combined with high-end computing hardware and software to very accurately measure the type and amount of greenhouse emission causing impurities in coal. The analyser will be designed to fit to a coal conveyor belt feeding a coal-fired power station and will instantaneously calculate the type and amount of each impurity as the coal as it passes through the analyser. This information will be relayed to the control room of the power station enabling automated adjustment of key boiler parameters to improve the efficiency of electricity generation and reduce greenhouse gas emissions.	1,265,135
QLD	The Biofuel Partnership Ltd	BioCube; a carbon neutral biodiesel processor	The BioCube is a versatile, fully integrated and robust community-sized biodiesel processor that takes in most oil-bearing fruit, processing it to produce high quality biodiesel for sale. It can also be used directly in any diesel engine. The BioCube can be thought of as a community's own green fuel station, capable of providing the fuel requirements of a community of 300-400 people with a sustainable source of affordable, clean energy. It is capable of running on its own biodiesel and will significantly contribute to the reduction of greenhouse gas emissions by providing alternative energy from sustainable, non-food chain feedstock.	500,000
QLD	Nano-Nouvelle Pty Ltd	Nanostructured Semiconductor Thin Films	Nano-Nouvelle aims to develop nanostructured semiconductor materials that enable efficient conversion of heat into electricity. Waste heat from power stations, industrial plants and vehicles, as well as heat from renewable sources such as geothermal and solarthermal power, are targets for the technology. Efficient utilisation of heat has potential to greatly decrease greenhouse gas emissions.	276,833
QLD	Pacific Environment Limited	Economic Environmental Management and Reporting System (EEMRS)	The Economic Environmental Management and Reporting system (EEMRS) is a software tool designed to provide Australian industry with real-time emissions, energy and financial data. It gives advantages to companies reporting, managing and trading greenhouse gas emissions in the carbon economy.	446,329

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QLD	Qs Semiconductor Australia Pty Ltd	Development of QsRAM	Development of QsRAM - a new and novel power efficient semiconductor memory.	463,000
QLD	Radar Portal Systems Pty Ltd	Road Radar: Reducing the Environmental and Economic Cost of Road Infrastructure through High Speed Ground Penetrating Radar and Surface Imaging.	Radar Portal Systems (RPS) aims to reduce the environmental and economic cost of road infrastructure through the creation and application of innovative high-speed ground penetrating radar (GPR) and surface imaging technology. The technology and systems that RPS is developing allows road authorities to collect and manage detailed information on the road pavement condition, allowing improved assessment for rehabilitation and preventative road maintenance, resulting in longer road life. Increasing the period between rehabilitation and repair of our road network has huge energy, water and green house gas savings, as less roadwork and road materials need to be used. The technology also reduces the negative impact of climate change on our road infrastructure by allowing road pavements to be managed when extreme weather events such as flooding occurs. We plan to generate new employment, make significant export gains, improving road condition and safety for the community.	851,822
QLD	ACTIVETORQUE PTY LTD	Reducing greenhouse gas emissions and increasing fuel economy by tuning internal combustion engines in real time through the use of a contactless torque sensor.	ActiveTorque Pty Ltd was established in 2006 to commercialise leading research out of the University of Queensland related to the optimisation of an internal combustion engine's operation in real time. ActiveTorque's unique technology - which utilises patent-pending algorithms coupled with a contactless torque sensor - allows the engine control unit to automatically compensate for manufactured and environmental conditions affect engine performance. The efficiency benefits yielded include increased performance, reduced fuel consumption and decreased emissions. The ActiveTorque technology is applicable to petrol, diesel (including bio-diesel) and hybrid vehicles.	126,008

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QLD	Hydrexia Pty Ltd	Development of a safe, high capacity & low cost storage system for the hydrogen industry, based on proprietary magnesium alloy hydride technology.	Hydrexia is developing hydrogen storage systems based on its proprietary magnesium alloy. Hydrexia's technology provides a safe, low cost, scalable hydrogen storage and delivery method that stores up to 2-3 times more hydrogen by weight, and up to 3 times by volume when compared to the current standard pressurised gas hydrogen cylinders. The project focuses on scaling up from previous development work: a five times scale-up of Hydrexia's prototype hydrogen storage system, and a ten fold increase in the amount of alloy produced. The outcomes of the project will prove the concept for commercial scale hydrogen storage systems that are targeted at large scale, hydrogen storage and delivery applications, including existing industrial hydrogen storage and delivery and refuelling infrastructure, for the rapidly emerging mobile hydrogen fuel cell applications such as fork-lift trucks and other fleet vehicles.	1,481,166
QLD	Australian PhytoFuel Company Pty Ltd	Developing systems for Native Tree Plantations for Carbon Pollution Reduction	Australian PhytoFuel will establish large scale plantations of the native Kalpa tree (<i>Mellittia pinnata</i>) for the production of biofuels. The plantations will be established across northern Australia on land which will not compete directly with agricultural production. The Kalpa will be grown for its oil rich nuts which will provide an ideal feedstock for the production of biodiesel. The company intends to produce up to 1 billion litres of renewable fuel feedstock and 2 million tonnes of seed cake as animal feed annually, and in the process will accumulate 16 million tonnes of carbon dioxide equivalent each year in the plantations. As the plantations will be located in relatively remote areas Australian PhytoFuel will provide a significant regional employment opportunity.	421,196
SA	Cogen Microsystems Pty Ltd	Cogen Hybrid solar energy system	Cogen Microsystems will develop a combined solar hot water and electricity generation system for household and small commercial use. Using a heat engine and low cost solar thermal collector, the system will be available at a lower installed cost than competing technologies and will provide significant carbon emissions savings.	814,471

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SA	Water Find Pty Ltd	Waterfind External Broker's Corporate Water Trading System	Water Find Pty Ltd's Climate Ready project will develop software to facilitate management of all water trading activities by medium and large water market participants. It will be particularly suitable for water market participants with multiple water holdings and business operations with dispersed region locations. National benefits include improving regional business' ability to manage water allocations which will be a necessity resulting from the impact of climate change.	227,622
SA	Irrigation Systems & Components Australia Pty Ltd	Innovative, Water Efficient Broad Acre Irrigation Technology Development	Irrigation Systems & Components Australia Pty Ltd's Climate Ready project will complete development of an innovative broad acre irrigation system, which is significantly more water efficient than current irrigation systems. National benefits include increasing agricultural productivity through more efficient water application and reducing the amount of water taken from river systems.	325,251
SA	Ember Technologies Pty Ltd	Standby Power Saving Platform	The project will develop an electronic hardware and software technology platform for embedding in power connection devices to reduce the amount of power used by electrical appliances, particularly when they are in standby mode.	1,636,628
SA	Airspeed Pty Ltd	Development of lightweight gas cylinders (fuel tanks) for the storage of compressed natural gas and hydrogen	The project will develop lightweight gas cylinders (fuel tanks) for the storage of compressed natural gas (CNG) and hydrogen for use in transport applications. The light weight of the cylinders will enhance the viability of the cleaner burning CNG and hydrogen as alternative transport fuels. This has the potential to significantly reduce carbon dioxide (CO2) emissions.	360,166
SA	Alltech Refrigeration Services (Australia) Pty Ltd	Development of refrigeration system to utilise off peak power	The project aims to develop a commercial refrigeration system that incorporates the special heat storage properties of phase change materials. This system will significantly reduce the amount of environmentally harmful chlorofluorocarbon refrigeration gases used and will be able to source most of its energy needs from cheaper off-peak power.	80,363

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SA	Climat Air Control & Energy Centres Pty Ltd	Penguin Water Chilling System	Climat Air Control & Energy Centres Pty Ltd's Climate Ready project will develop the Penguin Water Cooling System (PWCS), a component of air conditioning systems for new and existing commercial buildings. PWCS will produce colder water than current systems, using the same amount of energy. It will also prevent growth of disease-producing bacteria, a problem in current commercial cooling systems. National benefits include reducing greenhouse gas emissions related to the energy used by commercial buildings, and improving worker health.	1,573,048
TAS	GreenSeal Global Technologies Pty Ltd	Diesel fuel enhancer for emissions reduction and improved fuel efficiency for the land transport industry.	Trialling of a diesel fuel additive for commercial road transport applications and development of a prototype dosing applicator. It is expected that the product will deliver diesel fuel efficiency improvements of at least 10 per cent.	98,422
TAS	Ducane Research and Development Pty Ltd	The Hydromiser - a new waste system to save water	The development of an enclosed trap with a tip mechanism which is incorporated in the waste line of domestic and commercial sewerage systems and which will allow the effective usage of very low flush cisterns.	500,000
TAS	Primepak Manufacturing Pty Ltd	Design and development of a pilot plant that manufactures the innovative environmentally friendly aerosol propellant device.	Design and development of a pilot plant that manufactures a constant pressure and environmentally friendly aerosol propellant device specifically designed to replace the use of harmful propellants such as hydrocarbons or oil based products.	498,394

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WA	Phase Change Products Pty Ltd	Energy Efficient HETAC air conditioning system using advanced phase change material	The project will develop a novel air conditioning system which is more than double the energy efficiency of current systems. The High Efficiency Thermal Air Conditioning (HETAC) project based in Perth seeks to utilise thermal storage capabilities of Phase Change Materials (PCMs). HETAC provides stored energy for cooling during the hottest part of the day, using 90% less energy during this period and providing greater than 50% energy savings overall when compared to conventional air conditioning. Potential benefits to the Australian energy infrastructure system and environment include reducing energy consumption during peak periods, alleviating total energy consumption and reducing green house gas emissions, all of which assist in the fight against climate change.	154,526
WA	Robertson Technology Pty Ltd	New Thermodynamic methods for measurement of energy efficiency	Products and test services for the accurate measurement and monitoring of the energy efficiency and flow rate of motor-driven systems, in particular pumps and blowers.	147,048
WA	Hofmann Engineering Pty Ltd	Hofmann Wind Turbine Production Process (HofWind)	The HofWind project will ramp up to repairing 300 failed wind turbine transmissions per year that will produce an additional 900MW of green power each year. The wind industry requires leading edge technology that is still in early stages and grant assistance will help Hofmann Engineering provide the only wind turbine precision component manufacturing capabilities in the Australasian region.	5,000,000
WA	Scanalyse Pty Ltd	Increased energy efficiency of mineral processing through process optimisation	The project aims to significantly improve the efficiency of grinding mills and crushers, by far the largest consumers of energy on every mine site, using its innovative 3D laser and modelling technology. This will substantially reduce the power consumption of these industrial processes and the wastage of grinding media and liner materials.	1,779,952