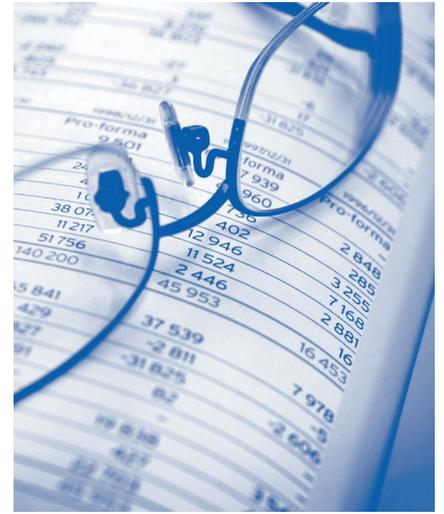




Australian Institute
for Commercialisation



Case Study: Blade Electric Vehicles



The Company

With petrol prices taking a bite out of almost everyone's wallets and addressing climate change is one of the most pressing issues being faced, Blade Electric Vehicles (BEV) has developed a bold plan for Australia to kick the petrol habit.

In his workshop in Harcourt, BEV's Managing Director Ross Blade, a former Sydney teacher is thinking ahead. At a time when electric cars are enjoying resurgent interest, after years of allegations their development was "killed" for commercial reasons, BEV now has a growing number of 'Electrons' in the hands of happy customers.

Blade says he came into the industry after researching alternative fuels in the wake of the Iraq war. "I'm not a tree-hugger, I don't have a great love of cars, or electric cars for that matter," he says. "It really was a research-based business decision."

The Opportunity

While Blade says the electric car remains a niche vehicle, the expected development of batteries such as zinc-air, with five times the energy density of lithium, mean the potential is "huge", not only for zero-emission cars, but for "vehicle to grid" power generation.

BEV's Electron car runs on lithium iron phosphate batteries in the chassis of a Hyundai Getz. The batteries are in two tanks, which have been created through a simple modification of the floor pan.

Components that are removed from the base vehicle prior to installation of the batteries and electric drive train include the engine, radiator and exhaust system.

For a standard 10amp power point charging takes nine hours. A 15amp point gives it seven hours and charge time can be reduced to one hour using 3 phase power.

The 'Electron' is targeted at government and corporate fleets that travel short commuter distances.

Fast Facts

- BEV collaborated with Ballarat University to create battery monitoring solutions
- AIC introduced BEV to specialist battery charger manufacturer
- CSIRO acknowledged "Electron" as Australia's first zero emission passenger car.



The Australian Institute for Commercialisation (AIC) is a leading service organisation helping innovators achieve commercial success. Around Australia, the AIC helps business, research organisations and governments convert their ideas into successful outcomes.

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“The AIC is assisting with Blade’s technology development by helping us explore opportunities for further collaboration with other companies.”

Ross Blade, Blade Electric Vehicles.

TechFast Assistance

Through TechFast the AIC helped connect BEV to key organisations to pursue their ongoing development and commercialisation objectives.

“The AIC is assisting with our technology development by helping us explore opportunities for collaboration with others companies who are developing products and expertise for electric vehicles.”

“Assistance with our business plan has helped lead to a successful application for funding under the AusIndustry COMET program,” Mr Blade reports.

The Outcomes

Hyundai has recognised the potential for this technology and has announced that it will be the first automotive manufacturer to offer new electric cars for sale in New Zealand using the BEV developed technology. BEV now has a contract to supply 200 of the Electrons to New Zealand Hyundai dealers.

The City of Melbourne, which has one of the cars, has judged the running costs to be \$1 per 100 kilometres. The car, which has two gears - Town and Highway - sells for just under \$40,000 using ex-lease Hyundai vehicles. The batteries will need to be replaced after eight years. Even with green power the cost to run the vehicle is around \$2.50 per 100 kilometres.

The battery charging and monitoring technology that ensures safe charging and long life has been jointly developed with Ballarat University.

Promising discussions are also taking place with a company specialising in vehicle battery chargers.

“Our participation in the AIC’s TechFast program has helped fill some vital gaps in our business’s planning and development. We have also been made aware of some other Federal assistance programs we may be able to access”.

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