



## Levels of Sponsorship

All sponsors will have access to research and testing results within their area and receive a certificate with recognition of their support, according to sponsorship level. All sponsors have the opportunity to join the UWA REV Project Sponsor's Database, enabling sponsors to share contacts, information and resources with each other.

### PLATINUM (AUD \$50'000+)

- Large logo on the REV car
- Large logo on posters, newsletters, pamphlets, websites
- Support acknowledged in media (radio, television, print, presentations)
- Detailed description of company or services on certain promotional material
- Presentation and display of REV car and team at company events
- Exclusive REV car access for 30 days for company events, evaluation or promotion
- Invitations to REV events and receipt of regular project progress reports

### SILVER (AUD \$10'000+)

- Small logo on the REV car
- Small logo on posters, newsletters, pamphlets, website
- Guided tour and presentation by the REV team at UWA
- Invitations to REV events and receipt of regular project progress reports

### BRONZE (AUD \$5'000+)

- Small logo on posters, newsletters, pamphlets, websites
- Guided tour and presentation by the REV team at UWA
- Invitations to REV events and receipt of regular project progress reports

### GOLD (AUD \$25'000+)

- Medium logo on the REV car
- Medium logo on posters, newsletters, pamphlets, websites
- Presentation and display of REV car and team at company events
- Exclusive REV car access for 7 days for company events, evaluation or promotion
- Invitations to REV events and receipt of regular project progress reports



Government of **Western Australia**  
Department of **Transport**



Faculty of Engineering, Computing and Mathematics

# Renewable Energy Vehicle Project (REV)

[www.theREVproject.com](http://www.theREVproject.com)

2010 Project Information



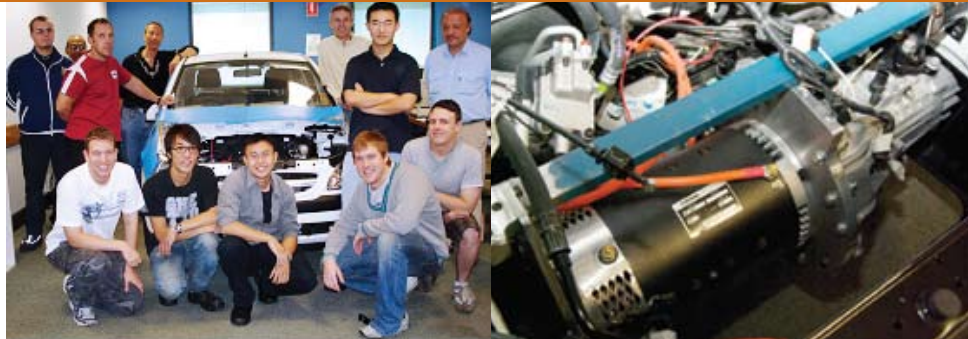
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## The Project

In times of rising fuel prices, growing air pollution and global warming, finding ways for sustainable, environmentally friendly transportation is a fundamental goal. The Renewable Energy Vehicle project (REV) is an initiative formed by the University of Western Australia to design and develop environmentally sustainable technologies for future transportation.

REV re-started in 2008 under new leadership and has set the goal to demonstrate the viability of renewable energy sources for transport in a pollution-free environment. After evaluating hydrogen techniques in previous years, REV decided to go electric and has developed a plug-in electric commuter car in 2008 and an electric sports car in 2009/2010. Although electric cars are not a new invention – after all they have been around for over a century – recent advances in motor, battery and controller technology make electric cars a viable alternative to petrol cars today. REV students and staff at UWA are developing electric zero-emission vehicle technology using the latest research and technology.

Emission-free power generation for charging the vehicle is an important part of the REV strategy, as power generated by burning fossil fuels would only shift the pollution problem elsewhere. This is why REV generates its own clean power using grid-connected solar panels on the building's roof (much more efficient than on a car's roof) and draws power from the grid for charging.

In 2008, REV has established itself by building a commercially viable, cheap and efficient electric

commuter vehicle, capable of driving 100km on a single charge. The vehicle can achieve speeds of up to 125km/h and costs as little as \$1.40/100km to operate (the petrol version of this car costs over \$10.00/100km to run). The car incorporates cutting edge technology developed within UWA, including outside volunteer developers.

This document describes the many aspects of the REV project and welcomes interested parties to join us in this fantastic endeavour either through volunteering, sponsorship, donations/subsidies or just by coming down for a visit.

For further information visit our website:

[www.theREVproject.com](http://www.theREVproject.com)

## The Team

The project is the co-operative effort of a team consisting of:

- Over 45 Students from Graduate, Penultimate and Final years  
Students from varying disciplines of Engineering are involved: Mechanical, Mechatronics, Electrical, Computer and Software.
- Industry-Leading Academic Staff  
Lecturers with industry experience supervise, moderate and assess student reports and work which form a component of student marks.
- Technical Support Staff  
UWA Workshop staff support students in project development and installations, offering assistance, resources and advice on practical components of the project.

### • Volunteer Support Staff

Members of local organisations and business groups (such as WAEVA) volunteer their time and advice with project direction and often lend a hand in the project themselves.

## Funding

The project is funded primarily by the University of Western Australia and the WA Department for Planning and Infrastructure. In addition, the project is supported by donations from industry and government organisations.

Donations are in the form of cash or in-kind sponsorship. In-kind sponsorship is a non-cash based contribution of goods or services. REV values all levels of sponsorship and recognises these efforts through returned support, exclusive event invitations, vehicle advertising and media exposure.

## Media

A key component of the project is raising public awareness of the need for sustainable transportation and for this reason the project aims to gain significant media exposure over the coming years. This will not be difficult to achieve – the technology is as interesting and exciting as it is a vital goal for a sustainable future.

REV participates in and is expected to attend the following events in upcoming years: Perth Motor Show, ResourCity, Greenhouse., Sustainable Living Expo, Perth Sun Fair, and UWA Expo, as well as a number of various related motoring and sustainability related events. The vehicles will also be displayed around Perth schools and developed into an awareness program to educate primary and secondary school students about sustainability. As a major sponsor your organisation has the right to request the display of any REV vehicle for promotional purposes.

## Internet

The project has an online home page which lists more information about the project, including specifications, achievements and upcoming events, as well as photos and videos of our vehicles at various events. All sponsors are featured on our website.

## Partnership (Cooperative Research)

Industry Partnerships can be established between the UWA REV Project and an organisation that wishes to have research and development conducted in an area of interest to both parties. As an example, if a company had a proposed design of an electric motor, an agreement can be established whereby UWA REV team members perform the required R&D.

REV Spec Sheet	REV Eco (2008)	REV Racer (2009/2010)
Base car	2008 Hyundai Getz	2002 Lotus Elise S2
Seats/doors	5 seats / 5 doors	2 seats / 2 doors
Original engine	1.4l, 4 cylinders, 70kW	1.8l, 4 cylinders, 116kW
Electric motor	Advanced DC, 28kW DC	UQM Powerphase75,75kW AC
Controller	Curtis 1231C, 500A	UQM DD45-400L, 400A
Regenerative braking	No	Yes
Instrumentation	EyeBot M6	Automotive PC
Batteries	Lithium-Ion-Phosphate, 45 x 90Ah	Lithium-Ion-Phos., 100 x 60Ah
Battery weight	135kg	212kg
Voltage	144V	320V
Max. current, power	270A, 39kW	180A, 54kW
Total capacity	13kWh	19kWh
Total weight (petrol/electric)	1160kg / 1160 kg	780kg / 850kg (estimate)
Max. speed	125km/h	200+ km/h (estimate)
Range	80km	130km (estimate)
Charging Time	6h (full charge)	8.5h (estimate)