



**CHALLENGE BULLETIN**  
**September 2008**

Welcome to the 2008 Western Power Solar Model Car Challenge.

**When:** Time trials - Thursday 30 October 2008  
 Finals - Friday 31 October 2008

**Where:** Forrest Place, Perth

Only eight weeks to go! Competition will again be fierce when secondary schools and colleges from across the State compete in this year's Challenge!

Schools registered for this year's Challenge include:

Albany SHS	Kolbe Catholic College
*Armadale Christian College	Leeming SHS
Aquinas College	Lynwood SHS
Belridge SHS	*Maranatha Christian College
Christ Church Grammar School	Mazenod College
Girrawheen SHS	Morley SHS
Guildford Grammar School	Perth Modern School
*John Calvin Christian College	Prendiville Catholic College
*John Calvin School	Shenton College
John Septimus Roe Anglican Community School	Thornlie SHS
Kelmscott SHS	Winthrop Baptist College
	*New schools registered in 2008

**It's time to let the Challenge Coordinator know how many cars your school will be entering in the Challenge.**

**FINAL REGISTRATIONS**

Please complete the attached registration form and fax to the Challenge Coordinator on 9326 4984 by **Tuesday 23 September**. If you cannot meet this deadline, please telephone the Challenge Coordinator on 9326 6269 with your school's details. If we have not heard from your school before the end of term three, a reminder will be sent at the beginning of term four.

## **ENTRIES**

Each school can enter **two cars**. Schools may also nominate a third emergency car. Once final registrations have been received, the Challenge Coordinator will advise whether or not schools can enter a third car. This will depend on the total number of cars entered.

Confirmation of your school's entry will be sent to your school by **Tuesday 14 October**.

## **TIME TRIALS - Thursday 30 October 2008**

**Teams must report to the registration desk 15 minutes before their allocated scrutineering times.** Teams will be allocated space in the 'pit area' to get ready for scrutineering. Please note that only four students per team are allowed in the 'pit area'.

Time trials will be run on the 100-metre figure-of-eight track. Cars will be timed (all using the same lane) over a distance of 85 metres. The percentage of sunlight for each race will also be taken into account when calculating the seedings for the finals.

Cars are weighed\* and examined by the scrutineers before racing starts. If modifications to a car are required, the scrutineers must check it again. When a car is given the okay by the scrutineers, a Western Power sticker will be placed on the car and a raw egg ('the car's driver') placed in the cabin. Cars will also be given a number.

**\*Scrutineers weigh the panel with the egg, so the panel must be separate from the chassis (read regulations 8.4 and 8.5).**

The fastest time of three runs will be used to rank each car. The fastest 32 cars will race in the finals the next day.

## **FINALS - Friday 31 October 2008**

The finals will be held on a 100-metre figure-of-eight track.

They will be run with two cars competing against each other over tracks of equal length (100 metres) in a series of 'round robin' and/or elimination races to be announced in the official Challenge program. The winner of two out of three races for each pair of contestants will advance to the quarter finals, semi-finals and grand final.

## **2008 CHALLENGE REGULATIONS**

Please ensure you have a copy of the 2008 Challenge Regulations, and the Synopsis (quick reference guide to the regulations, a copy of which is attached), taking particular note of scrutineering, servicing, competition and car specification. If you have any queries regarding the regulations, please don't hesitate to contact the Challenge Coordinator. Also note:

- **Regulation 3.5 - poster**

Don't forget your poster. Your team's laminated poster can be A2 (size 420mm x 594mm – may be 2 x A3 posters taped together). The poster must be submitted when your team reports to the registration desk on Thursday 30 October. A poster must accompany each car entered. It will be worth the effort as there will be a prize for the best poster.

- **Regulation 8.21 – cargo area**

The two standard 1 litre fresh milk cartons will be provided by the scrutineers.

- **Regulation 8.25 – raw egg driver**

The raw egg (>61g) "driver" will be provided by the scrutineers.

## **CHECKLIST**

Attached is a list of essential items that your team will need to be race ready - please check off all the items before the Challenge.

## **ADVICE & TIPS**

We recommend you contact Fred Adler for very good practical advice and tips on all aspects of building your solar model car. Fred has guided very successful teams from Hampton Senior High School and Belridge Senior High School through a number of State and Australian-International challenges. Fred's contact details are:

Tel: (08) 9276 9821 (**evenings only**)

Email: [fred.adler@lycos.com](mailto:fred.adler@lycos.com)

## **PRIZES**

The first four placegetters in the Challenge will be invited to represent Western Australia in the Australian-International Model Solar Car Challenge to be held in Tasmania on Saturday 22 and Sunday 23 November 2008.

Western Power will pay the airfares for a teacher and two students for the first three placegetters. The fourth placed school is responsible for its own travel costs.

The winning school will also receive \$500.00.

Other prizes include:

- Fastest qualifier (in the time trials)
- Best poster
- Best team effort
- Best new school

## **WEBSITE**

Visit [www.westernpower.com.au](http://www.westernpower.com.au) for all information regarding the Challenge.

For information regarding the Australian-International Model Solar Car Challenge visit [www.solarnational.org](http://www.solarnational.org).

## **CHALLENGE COORDINATOR**

Western Power's Lorraine Butler is the Challenge Coordinator. If you have any queries about the Challenge, please don't hesitate to contact Lorraine on (08) 9326 6269 or [lorraine.butler@westernpower.com.au](mailto:lorraine.butler@westernpower.com.au).

**Challenge Coordinator**  
**Lorraine Butler**



**2008 Western Power Solar Model Car Challenge**

**Registration form**

1. Name of school: \_\_\_\_\_
2. How many cars (two cars per school, plus a third emergency car): \_\_\_\_\_
3. Car names (1) \_\_\_\_\_ (2) \_\_\_\_\_ (3) \_\_\_\_\_ (emergency)
4. Names of students for each team.

TEAM 1	TEAM 2	TEAM 3 (emergency car)

5. Please choose the time trial you prefer. Please include 1<sup>st</sup> and 2<sup>nd</sup> choices.

	<b>Scrutineering</b>	<b>Time trials</b>
( ) Heat A	8.30am - 9.30am	9.45am - 10.45am
( ) Heat B	10.30am - 11.30am	11.15am - 12.45pm

6. After hours contact number for teacher: \_\_\_\_\_
7. Email: \_\_\_\_\_

Please fax your registration form to the Challenge Coordinator on 9326 4984 by **Tuesday 23 September 2008.**

## CHECKLIST FOR SCHOOLS

A. **Poster for each car** – size A2 or A3 laminated (read regulation 3.5).

B. **Cargo area** – space for 2 x standard 1 litre fresh milk cartons (provided by the scrutineers) – see regulation 8.21)

The space must be sufficient to fit 2 x standard 1 litre fresh milk cartons beneath the solar array when the array is in place on the car. The cartons will be full and unopened, and may not be altered or modified in any way. At least one of the cartons must be positioned transverse to the direction of travel. A standard fresh milk carton will be assumed to be approximately 235mm by 72mm by 72mm and it may be assumed that the sides of the cartons are flat and no provision needs to be made for normal bulging. With the solar array structure removed from the car, the designated cargo space floor must be capable of supporting the two full cartons standing on any part of that floor, and the car must be capable of free and stable movement with those cartons in place. The cartons are not required to be carried in the cargo area when racing.

C. **A panel for each car**

D. **Does the car size match regulation requirements?**

E. **Weights according to regulation 8.12**

F. **Ballast**   
Teams must have their own ballast. To find out how to roughly ballast your car correctly (find the panel power), contact Fred Adler by email: [fred.adler@lycos.com](mailto:fred.adler@lycos.com). or phone 9276 9821 (after 7.00pm in the evenings).

G. **Spare parts**

H. **Sufficient tools**

I. **Cars must have an on/off switch** – see regulations 8.8 and 8.15.

J. **Solar panel cover** – see regulation 8.23

K. **Solar array wiring** – your car must have suitable connections to enable the panel power to be measured – see regulation 8.7

L. **Panel wiring diagram (all wiring must be visible)**

M. **Does your car have a fully enclosed cabin for the “egg”?**   
(The egg is provided by the scrutineers - read regulation 8.25).

N. **Car and school name must be on each car** - see regulation 8.24

O. **Be race ready!** – see regulation 5.1

Please check the 2008 Western Power Solar Model Car Challenge regulations and the Synopsis for important regulations, in particular regulations 5, 6, 7 and 8.