



World Solar Challenge FAQ issue #2 published March 2015

Questions continue to be received concerning the regulations for the 2015 event, as published on World Environment Day 2014.

These notes have been prepared to assist in the interpretation and clarification of the requirements. Teams that build Solar EVs with small margins for error may experience anxiety during scrutineering.

This document is arranged in two parts: Clarification of Regulations and General Questions concerning the event. If your question is not answered here, a priority response will be provided to registered teams by emailing the address contained in their confirmation letter. General enquiries may be directed to admin@worldsolarchallenge.org

Q. I have an electric race car which is ideal for you as it will do 200kph and will show the public what electric cars are capable of. How do I enter?

Q. We are intending to build a 3 wheel vehicle for the Challenger Class – That used to be OK so why isn't it now?

Q. We are building an electric car to our own design. How do we enter?

Q. Can we enter the Cruiser Class with an electric motorbike with deployable jockey wheels.

Q. I have converted my Ford to run on water. How do we enter?

Q. What class can I enter my electric quad bike, land yacht / wind powered car / perpetual motion machine?

The answer to all of the above (and similar) questions is this:

The World Solar Challenge is a competition to create an individually constructed vehicle within certain design parameters. The Event Director has created the Evolution Class to showcase, by invitation, any innovative automotive technology that, in the sole opinion of the Organiser, adds value or interest to the Event. Regrettably, we are unable to provide a forum for you to demonstrate your invention or present a solar EV built to your own alternative design.

What are the arrangements for road testing in the Northern Territory?

Changes to Northern Territory legislation have resulted in changes to the way road testing can be authorised and controlled. The Organiser is working through these changes with the

relevant department of NT Government. Although there are some outstanding issues to be resolved there is a willingness to help and we are confident of a positive outcome. Once the requirements and procedures have been agreed, all registered teams will be notified. See also section 3.8 of the Regulations.

Regulation 2.22.12 requires “...a battery monitoring system designed to detect any component cell becoming overcharged, undercharged, or too hot”. Does this mean we must monitor each cell, or can we monitor a group of cells?

Certainly there is a requirement to be able to detect a fault on any cell, but this does not require a sensor on every cell. Cells in parallel will all be at the same voltage, so one voltage sensor per module of parallel cells is acceptable.

Having one temperature sensor for a group of cells is also acceptable providing you can show, by modelling, that the sensor can detect high temperature on any cell in the group.

Can we use a motor racing helmet with an FIA technical approval?

An FIA approved motor racing helmet does not necessarily meet the requirement of the Bridgestone World Solar Challenge. Regulation 3.3.1 can only be met when the helmet carries a DOT/ISO compliance marking for a motorcycle helmet designed for use on the public highway.

Can we use Michelin Tyres from previous events?

Michelin have always been clear about which product they will and will not support on an event by event basis. In the last event, for example, only tyres with a certain date code were endorsed by Michelin as suitable for that event.

The provisions of regulation 2.11.1 reflect the conditions of road traffic authority permit to use public roads, which requires 2015 BWSC solar car tyres to have a compliance marking, or have been approved by the Organiser. The approval process (2.11.2) requires the manufacture’s willingness to engage with the Authorities compliance engineers.

Michelin have confirmed that, as they are producing a new solar EVs tyre that will carry an approval marking under UNECE75, they will not be supporting an application for use of experimental product under Regulation 2.11.2

It is clear therefore that Michelin tyres made of previous (or other) events will not be allowed.

Can we use a tablet computer for our instrumentation?

Regulations 2.22.12 - 2.22.21 apply to a battery inside a tablet that is electrically connected to the Solar EV. If your tablet is not electrically connected to the Solar EV then Regulation 2.22.5 applies; in this case you would need to have separate instrumentation for speed and battery status (2.15, 2.22.6).

Part Two – General Frequently Asked Questions

I need an instant answer – who is the best person to contact?

All questions regarding the event should be addressed to teams@worldsolarchallenge.org. This will allow the question to be answered by the most appropriate person. It may be mid afternoon for you, but calling the Event Director at 3am Central Australian Time will not speed up the process!

Different members of our team got different answers to the same question – what can you do about that?

If an individual puts a question without any context we will do our best to answer it, but it is too easy for the same question to be put in different ways. It is helpful to have some supporting information such as a team, class, or by directing all questions through one member of your group. Once your team registration has been accepted, our policy is to only communicate with the Team Manager. In practical terms, this policy is satisfied when the Team Manager is copied into emails.

Can I put my questions directly to the technical faculty?

The Technical faculty are all busy people who give their time to the World Solar Challenge. They also travel extensively so writing to them personally may only delay an answer. Whilst there will be times when team managers are invited to have direct contact with technical faculty members, all questions should be addressed to teams@worldsolarchallenge.org in the first instance.

When can we expect the exact route to be announced?

The traditional route of the World Solar Challenge is from Darwin city centre to Adelaide City centre. There is only one road across the centre of Australia, the Stuart Highway, which runs for 2700Km from Darwin to Port Augusta. The final 300Km completes the journey from Port Augusta down to Adelaide on Highway One.

To ensure the most accurate information as possible is available at the time of the event, detailed route notes with timing and location of those control points which will be declared before the start of the event will be published following the final route survey scheduled for July 2015.

When can we expect technical templates to be circulated?

We anticipated that these will be published in February 2015.

Where can I get a VIN Number for my solarcar?

While Regulation 2.61 requires a unique identification number, it is not an event requirement for this to comply with any international standards. If the customs authorities in your own (exporting) country demand a 17 digit ISO VIN, it would be wise to contact the local motor vehicle registry in the first instance stating that the number is required for customs purposes as some countries use the US standard (ISO 3779) which is different to the standard used in other parts of the world (ISO 3780).

Should you wish to construct a full 17 digit number, you will find sufficient information on each of the 17 segments to allow an ISO VIN to be constructed that contains a valid check digit at: http://en.wikipedia.org/wiki/Vehicle_Identification_Number

Teams with Cruiser Class vehicles seeking road registration should consult their local authorities.