

## Sharp provides solar cells to Japan's Tokai University team for Global Green Challenge

Sharp Corporation is one step closer to ensuring future generations have a reliable energy source. Japan's Tokai University team is taking part in the solar car category of the Global Green Challenge from October 24<sup>th</sup> - 31<sup>st</sup>, 2009 and Sharp, a global leader in solar technology, has provided the team with compound solar cells. Sharp first developed these solar cells with high conversion efficiency for outer space applications.

The Global Green Challenge is an auto race for environmentally-friendly vehicles, including solar cars, fuel cell and electric vehicles. With 38 participating teams from 17 countries, including Australia, Japan, Germany, Canada and the United Kingdom, the entrants will race in one of the world's largest solar car races for the best time over a distance of 3000km from Darwin to Adelaide.

The Japanese solar car was designed and built by a team from Tokai University in Kanagawa and is outfitted with high-performance solar cells manufactured by Sharp. The drivers for the event will include Kenjiro Shinozuka, who in 1997 became the first Japanese to achieve overall victory in the Paris to Dakar Rally, as well as the students from the University.

The Sharp compound solar cells boast among the highest levels of conversion efficiency in the world. From a surface area of no more than six square metres, as specified in the race rules, the solar car has an output of 1.8kW, together with a cell conversion efficiency of 30%, one of the highest levels in the world.

Denis Kerr from Sharp Corporation of Australia pointed out, "By taking advantage of Sharp's highly efficient solar cells, Tokai University's 'Tokai Challenger' solar car will maximise its performance under the harsh conditions of the race."

"Even today, Sharp is the only manufacturer in Japan whose solar cells are approved for use by the Japan Aerospace Exploration Agency (JAXA)," continued Mr Kerr.

Sharp has pioneered solar gains in engineering, design and implementation of photovoltaic technology. Since the first mass-production of solar cells and installations of solar cells that powered navigational buoys in 1963, Sharp's experience and dedication has led to innovation after innovation: developing solar cells for space-based satellites, inventing the first solar powered calculator, creating solar panels that can be used as exterior walls for skyscrapers, and manufacturing revolutionary thin-film solar panels that could lower the cost of generating electricity.

Sharp's solar future is getting brighter. Sharp is constructing one of the world's largest thin-film solar cell plants in Sakai city, Osaka Prefecture, Japan, which is scheduled to come on line by March 2010, embodying the solar commitment that Sharp has demonstrated for decades.

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### Notes:

An evolution of the acclaimed World Solar Challenge, the Global Green Challenge is the world's leading, cross-continental showcase of the latest advances in hybrid, electric, solar, low emission, and alternative energy vehicles. The World Solar Challenge, the pre-eminent solar car event in the world, was pioneered by the South Australian Tourism Commission and will be held for 10th time in 2009.

The Global Green Challenge has evolved into a platform and testing ground, giving the world a sneak peek into the environmentally sustainable vehicles of the future. The challenge puts technology, research, manufacturing advancement and sheer determination to the test, as the cars of the future lead the drive towards a healthier future for the planet.