

TÛRANOR PlanetSolar

IMMOSOLAR Partner project



The "TÛRANOR PlanetSolar" is the largest solar boat in the world. With around 500 m² of solar modules, it is also designed to travel for several days without direct sunlight. The "TÛRANOR PlanetSolar" is a symbol of the effective use of renewables, and this is the message it carries around the world. Its performance during long term use will be trialled for the first time in a circumnavigation of the globe scheduled for 2011. During the journey, which is expected to last 160 days, the aim is to collate new information on solar energy in mobile use.

The name TÛRANOR means "the power of the sun" and comes from "The Lord of the Rings" trilogy by J.R.R. Tolkien. For more information see www.planetsolar.org and www.solar-mobility.org.



Project data

Boat type:	Catamaran
Size, L x W x H in m:	31.0 x 15.0 x 6.1 (35.0 x 23.0 x 6.1 with wings)
Displacement:	85,000 kg
Estimated cruising speed:	7.5 kn (14 km/h)
Maximum speed:	14 kn (26 km/h)
Completion:	2010
Project partner:	PlanetSolar and Knierim Yachtbau GmbH
Energy generation:	Solar generator/photovoltaic (PV)
PV area:	537 m ² solar modules
Installed PV output:	93,5 kWp
Batteries:	Lithium ion (NCA), 388 V, 2910 Ah, 11 t
Motors:	Permanent Magnet Synchron Motor
Rated/maximum output:	2 x 10 kW @ 1.000 U/min / 2 x 60 kW @ 1.600 U/min
Propellers and steering:	2 x adjustable propellers with individually adjustable propeller blades (5 blades à 2 m diameter) Rudderless steering system
Special features:	Largest solar boat in the world, CO ₂ neutral, self-sufficient