

The e-evolution of traveling on the sea

Soel Yachts, April 2018

When visiting one of the world's most prestigious paradises, the island of Bora Bora, Pearl of the South Seas, the happy traveler soon gets disappointed in his luxurious overwater bungalow, as he is awoken by the smells and engine roars of the passing boats at 5 am in the morning. This is the time when the daily boat traffic starts and transforms the tranquil peace of an overwater bungalow into living like next to a boat highway. The idyllic island of Bora Bora has more than 50 outboard and diesel powered excursion and shuttle boats that need to be fed with more than 2 million liters of imported fuel, every year.

Green pioneers

Luckily, the Ministers of French Polynesia are setting fresh objectives by introducing a fully sustainable alternative under a privileged tax exemption: the SoelCat 12, a fully solar electric boat designed by Soel Yachts. The electric catamaran takes their guests on a *truly* sustainable and noise-free tour in the lagoon. The first SoelCat 12, which is called 'Okeanos Pearl' is a cooperation project between Soel Yachts, the Okeanos Foundation for the Sea and the Bora Bora Pearl Beach Resort. Together they boost the meaning of sustainable sea transport with unique PR values for the destination. The Pearl Beach Resort sets a pioneering example for the worldwide tourism industry, by introducing a new experience on the water and a new definition of *true* eco-tourism!



Mobile power

The silent electric boat turns into a powerful grid-feeding station, whenever the passenger vessel is not in use for solar cruising. Up to four households can be supplied with 15kVA of inverter power from the SoelCat 12. This enables the resort for example to use the solar electric boat to power their desalination plant: the power from the SoelCat 12 can produce up to 4000 liters of fresh water *every hour*. A smart solution to save on imported fuel and in addition to that utilizing green energy for on-water and on-land applications!

Highest efficiency by integral design

From the first line drawing, every aspect of the solar electric boat has been designed for its purpose: efficient solar electric propulsion. The same approach is used by Tesla for its electric cars: “one cannot just take any existing hull shape, add an electric motor and hope that it achieves a range of 150 nautical miles” explains Linda Brembs, managing partner at Soel Yachts. With its efficient hull lines, the SoelCat 12 requires only 2.17kWh of battery capacity per nautical mile. When compared to the specific energy density of gasoline, the boat's consumption would be the equivalent of only 0.22L of gasoline per nautical mile.

With a battery capacity of 120 kWh, the SoelCat 12 offers a range of 60 nm at 8 knots, and this is even without the need for any sunshine. Once the sun starts to shine the vessel's cruising speed of 8 kts is prolonged to 8 hours. Lowering the speed to 6.5 kts results in a 24-hour range. The integrated boost mode allows higher speeds and let's the electric boat quickly accelerate to 14 knots.



More than 12 years of experience with solar electric system integration have been put into practice with the SoelCat 12. David Czap from [Naval DC](#), the supplier and specialist for the solar electric propulsion systems explains: “The SoelCat 12 features our Naval UI system, a read-out and monitoring solution for electric propulsion system. The data can even be viewed live by the guests on board on their smartphones and tablets. The Naval UI enables us to remotely log-into the system and provide service support from all around the world. All system components have been tested for years for safety and performance in the rough ocean environment. Our oldest lithium battery system installations for example have only lost 4% of their initial capacity, after being in service for 10 years!”

Containerized shipping the SoelCat 12

The solar electric boat is designed to be demountable, like an Ikea furniture piece. This makes it possible to have the SoelCat 12 shipped at very affordable rates to every destination around the world, where it can be reassemble by a local crew. Joep Koster, Co-Founder of Soel Yachts explains: “Whether the SoelCat 12 is used in Bora Bora, Sydney, the Maldives or Bahamas, the benefits and PR values are applicable on a worldwide scale.”

True ecotourism

With both the Okeanos Foundation for the Sea and Soel Yachts sharing the vision of sustainable sea transport, the Okeanos Foundation funded and supported the development of this remarkable project. Okeanos is committed to empower island nations by providing sustainable sea transportation and implementing a network of fossil fuel-free vessels in the Pacific. The first catamaran of the SoelCat 12 series, called ‘Okeanos Pearl’ sets a real working example for sustainable passenger transportation and will pave the way for more sustainable coastal water vessels in many different sectors. “Tourism's dependence on fossil fuel is problematic, especially in remote areas. Shipping fuel to those remote places is very costly and vulnerably to supply chain disruptions. So in the interest of the boat operator, the solar option is much more resilient” according to Susanne Becken, Director and Professor of Sustainable Tourism at the Griffith Institute for Tourism.

Innovation awarded

In 2017 the World Travel and Tourism Council (WTTC) recognized Soel Yachts as a finalists for the Tourism for Tomorrow Awards 2017, which is among the highest accolades in the industry and represents the gold standard for sustainable tourism. Furthermore, in late 2017 the ‘Okeanos Pearl’ won the Innovation Award at the Trophées du Tourisme in Tahiti. Whether providing green transportation to cities like New York or Sydney, or getting tourists closer to nature without disturbing it, the SoelCat 12 offers a chance for smooth solar sailing where the sky is not the limit, but the solution.

Interested customers can get in contact with sales@soelyachts.com

For more information on partnerships, please get contact network@soelyachts.com



YouTube video of the SoelCat 12:

A day with the SoelCat 12 - www.youtube.com/watch?v=pB1VHzSVfQM



Notes for editors

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