OWNER'S STORY

SOLAR POWERED HOME

CHARLES DEYO HAS BEEN ONE OF THE EARLIEST BELIEVERS IN OUR SOLAR POWERED APPROACH TO YACHTING. AS THE PROUD OWNER OF A SILENT 55 NAMED "ISABELLA", HIS PASSION FOR MAKING USE OF RENEWABLE ENERGY SOURCES HAS BEEN STEADILY GROWING OVER THE PAST COUPLE OF YEARS. NOW, INSPIRED BY SILENT TECHNOLOGY, HE HAS A NEW VISION FOR AN EXCITING PROJECT ON COOK ISLAND IN THE FLORIDA KEYS.


CHARLES DEYO


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CHARLES, HOW IS YOUR EXPERIENCE OF OWNING A SILENT SO FAR?

The entire experience has been great to be honest. Everything from the noiseless cruising to the ease of operation and the minimal maintenance. My family loves spending time on board and travelling around the Florida Keys on the weekends and during the holidays. “Isabella” definitely helped create some memorable moments! As a tech enthusiast, I just love the innovation as well.

COULD YOU OUTLINE THE INTERESTING PROJECT YOU ARE CURRENTLY WORKING ON?

Currently we are rebuilding our off-grid fishing home on Cook Island. After suffering a direct hit from Hurricane “Irma”, it was severely wind and water damaged. Part of the buildings´ foundation was moved, the drywall and electrical wirings were all destroyed and the diesel generator was submerged.

However, we believe this rebuild is a great opportunity. My goal during this redesign is to reduce the dependence on diesel while making our time there more comfortable. The hurricane ripped much of the vegetation, including the enormous palm trees that shaded the roof and property. We are installing the solar array on the roof and located the battery bank in a cool indoor area. A water maker will be installed as well. Maintenance will be nearly nonexistent with the new lithium batteries.

HOW WERE YOU OPERATING THE FISHING HOME PRIOR TO THIS IDEA?

Years ago, a large 1.500 lbs (700 kg) diesel generator was installed. The logistics of moving it up the soft sand was a nightmare. It was expensive to maintain, required fuel every few hours and was loud. A small solar array had been installed, with a few golf cart batteries and an inverter. This system only had enough energy to supply the refrigerator. At night we hoped for a gentle breeze to blow through the building, but we were not always lucky. We often found ourselves running the generator all night for air conditioning and to keep bugs out of the house. Also, during the day, we would often have to choose between enjoying the silence of the beach or running the generator to have air conditioning.

Getting supplies to the island is difficult. Prior to the storm we would carry canisters of diesel & water, propane tanks and food.

Once everything is powered by solar, supply runs will be easier and less frequent. Time spent on the island will be way more enjoyable.


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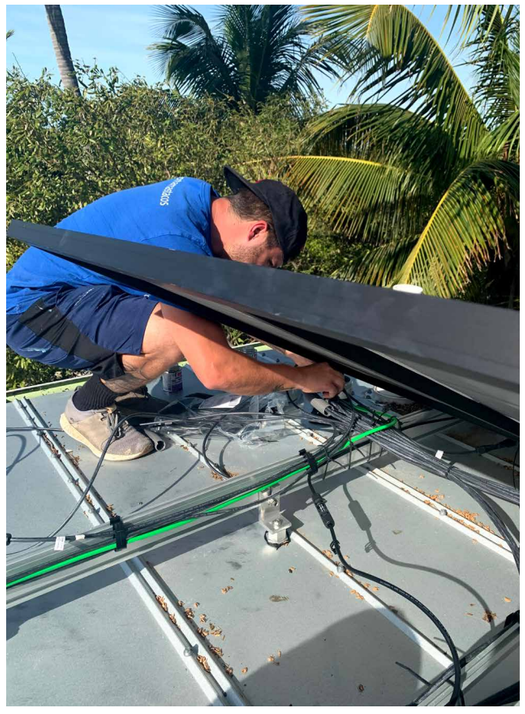

CAN YOU PROVIDE US WITH SOME NUMBERS REGARDING THE SPECIFICATIONS OF THE HOME AND THE SOLAR ARRAY?

The actual fishing home measures around 1.500 square feet (140 m^2), which is roughly the same amount of space you would have on an 80 foot (24 m) single hull boat. It will be fitted with 45 solar panels, each producing around 360 watts of power. This array has a total output of 16.2 kWp. The energy produced will be stored in a 30 kWh battery bank and converted to 120 V using two inverters. Hence, during the summer season the panels are able to completely cover all our energy needs - air conditioning, cooking, water maker, refrigeration and lighting.

HAS THE TECHNOLOGY BEHIND SILENT-YACHTS BEEN OF ANY HELP?

Much of the design and concept has been drawn directly from SILENT-YACHTS. For example, we are using the same water maker and water heaters. The lithium-ion battery is identical as well. While in the design phase, the energy consumption numbers that I saw onboard of "Isabella" gave a benchmark for the energy we would need to collect and store on the island house.

WHY DO YOU THINK SHOWCASING SUCH A PROJECT IS IMPORTANT FOR THE ENVIRONMENT?

Because I believe it is important for people to a see practical, real-life examples on how they can start changing the way they interact with the planet to make a difference. For a real change to happen on a large scale, everyone needs to get on board with this way of thinking.

ARE YOU PLANNING ON DIRECTLY CONNECTING THE SOLAR HOME WITH YOUR SILENT?

Yes, they will be communicating with one another via the internet. One main design consideration was being able to remotely access and monitor the electrical system from anywhere. I will be able to check the battery status, turn the air conditioning on and see live images from the security cameras all from my phone or at the helm of "Isabella".

IS THERE SOMETHING LARGER YOU ARE AIMING TO ACHIEVE WITH THE COMPLETION OF THIS PROJECT?

I simply want to show that the technology is available to make everything sustainable. There is no need for utility companies as we know them today. In the future, they will only be used for distribution and collection of infrastructure resources.

WHAT ARE YOU MOST LOOKING FORWARD TO ONCE EVERYTHING IS DONE?

As we are going to be self-sufficient in terms of our energy, we are all looking forward to spending longer periods of time there and really using it as a second home! It is going to be an amazing feeling knowing that we will be able to enjoy ourselves without producing any emissions!