



World's First Demonstration of a Mobile Solar-Powered Emergency-Response Water Desalination-Purification-Bagging System



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San Leandro, California — (from Chris Metinko of the Oakland Tribune) — “A local company spent Tuesday afternoon turning the San Francisco Bay into something it's typically not — drinkable.

San Leandro-based Renewables West — a division of Mr. Plastics Inc. — partnered with Forever Pure from Santa Clara to purify bay water using little more than the power from the sun.

Mike Adelson, president of Renewables West, said the demonstration was the first time ever salt water was purified into drinking water with the help of [mobile] solar power [in an emergency-response unit].

In the demonstration, Renewables West provided a 2.5-kilowatt mobile solar power generator — manufactured by SolaRover — to run Forever Pure's water desalination, purification and bagging machinery.

While Adelson admitted Tuesday was a chance to show off the companies' products, he said the demonstration also showed what could be done in third-world countries that have access to ocean water, or even in the Bay Area if a devastating earthquake affects the drinking water supply.

"This system, this process, could be used in many places for a variety of reasons," Adelson said.

The companies' demonstration Tuesday was capable of producing 10,000 liters of drinking water per day."

A Complete Emergency Response System

1. The two 25-foot trailers comprise the complete system: solar power generation and water purification. The solar trailer generates up to 7.2kW of power, backed by 31kWH of battery storage under the trailer deck. The solar trailer arrived fully charged and was set up in less than five (5) minutes. 110 or 220V single-phase power was converted to 3-phase for this demonstration. New custom solar generators have been designed to provide more power at native three-phase, with additional battery capacity and a backup propane generator to guarantee 24/7 power.

2. A submersible pump is placed in San Francisco Bay.

3. Water enters at about 40psi through a multimedia filter for turbidity, then through two sediment filters before the pressure is raised to 600psi for the first pass reverse-osmosis desalination process.

4. The second pass reverse-osmosis system makes it "bottle-water" quality, with both ozone and ultra-violet disinfection

5. This water enters the automatic bagging unit, which produces up to 20,000 half-liter bags a day using a strong plastic film.

6. Fresh water enjoyed by Sergio and Luis who are looking to bring the system to South America.

7. Like we said, "As Seen on TV"! We were also on radio, print and online media.

8. Channel 2 beams the news live to the Bay Area and beyond.



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