OutBack POWER™
an EnerSys company

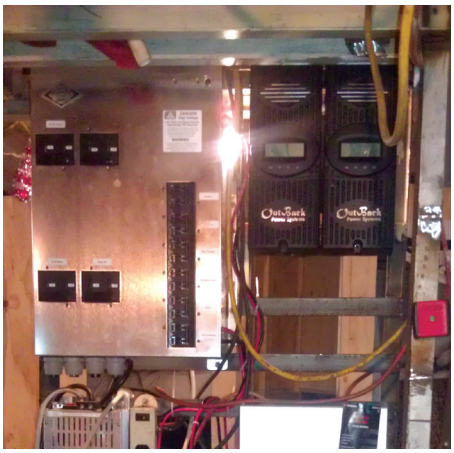
International Rescue Group

MARINE SOLAR POWER CASE STUDY

SYSTEM SPECIFICATIONS	
Location	Almeda, California
System Power	1.5kW
Components	FLEXmax 80 charge controllers
Energy Savings	Reduced annual fuel cost of ~$40,000

OVERVIEW

International Rescue Group is a non-profit organization based in California that provides first-line support and humanitarian aid to disaster-hit coastal communities. After a catastrophic event, International Rescue Group's volunteers enter the area on boats to deliver life-saving and sustaining medical help, supplies, fresh water and food. This all-volunteer organization is dedicated to keeping its environmental footprint as small and green as possible. International Rescue Group boats run on donated diesel-electric hybrid drive engines, which reduce fuel consumption. The Thunderbird 2, a large, re-purposed steel trawler, also has a sailing rig so if necessary, it can travel into disaster areas without burning fuel. As part of this low-fuel-impact approach, IRG wanted the option to harness solar energy to power both Thunderbird 2 and its on-board water-making system.



CHALLENGE

- Reduce the boat's environmental impact by switching the power source to solar energy
- Use donated solar panels to channel solar-generated power into the ship's batteries
- Cut costs by eliminating the on board generator's 30-gallon-per-day diesel fuel requirement
- Monitor system efficiency to evaluate its performance relative to the organization's goals

SOLUTION

- International Rescue Group installed two FLEXmax 80 charge controllers on-board Thunderbird 2
- Thunderbird 2 uses solar power to run its electronic communications systems and power a water system that produces up to 250 gallons of fresh water per day—enough to sustain 1,000 survivors
- The organization plans to extend to the fleet's other boats it plans to acquire over the next year

OUTCOME

- Provides cleaner, greener and quieter sailing
- On-screen display of amp/hours generated per day measures overall system efficiency
- Demonstrates green, lean practices and operations for fundraising purposes

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