

MILLION SOLAR ROOFS CASE STUDY



Partnerships as a Common Thread between Disparate Organizations Florida SunSmart

Problem: Including Solar Water Heating in Weatherization

Throughout the mid-1990's, the Florida Solar Energy Center (FSEC), a lead organization in the Florida SunSmart MSR Partnership (FSS), helped coordinate a successful pilot program that included solar technology in Florida's weatherization efforts. Despite the program's encouraging results, however, there was little momentum within the state to expand beyond the pilot phase.

The pilot program, co-developed by the U.S. Department of Energy, Florida Department of Community Affairs, and the Florida Solar Energy Center, was designed to utilize solar water heating to compliment Florida's existing Weatherization Assistance Program (WAP). The project, called the Solar Weatherization Assistance Program (SWAP), attempted to exhibit the dependability of solar water heating and its impact on utility bills in low-income households in Florida. By installing solar water heating systems on low-income residences, SWAP allowed home owners to lower their energy costs while experiencing the same or greater level of hot water service. By 1998, when the program ended, it had accomplished the following:

- Installed over 800 residential solar water heating systems.
- Proved residential solar water heating systems are reliable through surveys and inspections.
- Proved solar water heaters lower utility bills for low-income residences through utility bill comparisons.

When the time came to include solar as a permanent addition to WAP, however the State hesitated. Solar is the most expensive option to weatherize a home, and weatherization is often thought of as an energy efficiency initiative rather than involving distributed generation technologies. Due to disparate interests among the program's stakeholders, there was a need for a catalyst organization to take the lead in providing unbiased, educational information on the benefits of including solar as part of weatherization.

Solution: Providing Testimony for Solar's Impact

Thanks to vigilant monitoring and documenting efforts of SWAP by FSEC, there was objective data that discerned the public benefits for state and local agencies and the private benefits for utilities and low-income residences. FSEC and the Florida Solar Energy Research and Education Foundation (FlaSEREF), another lead organization in FSS, utilized this information and took every opportunity to share the positive results of the SWAP program.

Throughout 2002 and 2003, FSEC was frequently called upon to speak about SWAP at annual meetings of weatherization agencies and providers. In addition, the Florida Energy Office decided to undertake a study of Florida's energy profile in 2003. FSEC was the prime contractor for the study, with FlaSEREF serving as subcontractor for energy policy issues. During this time, FSEC and FlaSEREF conducted public workshops throughout the state, as well as targeted workshops with state agency representatives. These outreach efforts provided further opportunities to communicate the favorable results of SWAP. The public workshops in particular revealed a



FlaSEREF and FSEC worked diligently to include solar thermal in weatherization. Here are two Front Porch Sunshine installations in Gainesville, Florida that are a result of their efforts.



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great deal of support for low income solar program funding, which was then conveyed to elected officials. Through these activities, FlaSEREF became an invaluable link between the community, elected officials, the solar industry and government staff.

Results: The Creation of Front Porch Sunshine

FlaSEREF's ability to act as liaison culminated when Colleen Kettles, Director of FlaSEREF, attended a meeting with Florida Governor Jeb Bush and the Deputy Secretary of the Department of Environmental Protection on behalf of the environmental community. In her meeting with Governor Bush and his Deputy Secretary, Ms. Kettles presented ideas on how to include solar in state programs. Governor Bush felt the SWAP concept would fit well with his Front Porch Florida initiative, and on October 6, 2003, announced the creation of Front Porch Sunshine. The program authorized up to \$400,000 in 2004 to install solar water heating systems on residences within the low-income Front Porch communities.

Once the Front Porch Sunshine program began, FlaSEREF conducted informal meetings with legislators to educate them on the results of the initiative. They were also invited by the Florida legislature to provide testimony highlighting economic developments attributable to solar, the technical advantages of solar, and the results from SWAP and Front Porch Solar. In doing so, FlaSEREF supplied the information officials needed to establish Front Porch Sunshine as an ongoing program, thereby including solar in weatherization efforts indefinitely.

Front Porch Sunshine installed 50 solar hot water systems in its initial year, representing 160,000 kWh per year in energy savings. The program received additional funding in 2005, and looks to install 100 additional systems within the year. To this end, FlaSEREF is working to streamline the qualification process for Front Porch Sunshine to expedite installations. Furthermore, they are partnering with

utilities to increase the weatherization effort in Front Porch communities. The ultimate goal of the program is to install 150 solar water heating systems annually.

"The first installation is the toughest," says Colleen Kettles. "Once a residence in a Community decides to install, however, we hold a press event and gain media coverage so residents in the area become aware of the option. Then the phone starts ringing off the hook."

The Florida SunSmart MSR Partnership, through FlaSEREF and FSEC, has helped evolve the perception of solar and expand its market by including the technology as part of weatherization. Acting as a catalyst to bring different stakeholders together, FSS provided an invaluable service to solar deployment efforts in their region.

What is Front Porch Sunshine?

Front Porch Florida (FPF) is a community revitalization program found in 20 low-income communities throughout Florida. Impressed with the results from a previous solar weatherization program (SWAP), Governor Bush created Florida Porch Sunshine (FPS) to provide weatherization clients in FPF Communities with solar water heaters in addition to previously installed energy efficiency improvements. The program is structured as ongoing, however is subject to annual budget reviews by the Florida Legislature. The Florida Energy Office has contracted FlaSEREF and FSEC to administer the program and conduct outreach to local weatherization agencies.

For more information on best practices of a solar weatherization program, and to find out if it could be an option in your area, please contact your regional MSR program manager.

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The National Renewable Energy Laboratory, a DOE national laboratory, produces MSR Case Study for:

U.S. Department of Energy
Office of Energy Efficiency and Renewable Energy
1000 Independence Ave., S.W.
Washington, D.C. 20585

DOE/GO-102005-2174
September 2005

Printed with a renewable-source ink on paper containing at least 50% wastepaper, including 20% postconsumer waste