

DOMESTIC SOLAR PROJECT

Habitat for Humanity of Williamson-Maury Home Builds Columbia, Tennessee



OVERVIEW

Helios Energy implemented two 3.65 kW roof-top solar PV systems as part of two HFHMW new builds that will provide stable, safe homes for hardworking, deserving families in Columbia, TN.

CHALLENGE

Design a value-engineered roof-top solution for two new, Habitat for Humanity Williamson-Maury home builds.

Need 1: Design and build 2 solar systems using only the grant funds awarded to HFH.

Need 2: Construct a rooftop system that meets all technical requirements set by local authorities and ensures completion of all local power and water systems applications.

Need 3: Develop and execute timelines for system installation compatible with concurrent build requirements at the houses and peak summertime weather limitations.

SCOPE OF PROJECT

Size of the project: (2) 3.65 kW roof-top solar PV system

Annual energy produced: Models created for these projects indicate that each solar system can produce ~4,400 kWh annually. For the average American home, that amount of energy can decrease energy drawn from the grid by over 40%. The value of this clean energy can also be thought of in terms of greenhouse gas emissions reductions and is equivalent to CO2 emissions from 351 gallons of gasoline consumed or 3,450 pounds of coal burned. In other terms, this is identical to carbon sequester by 52 tree seedlings grown for 10 years or 3.7 acres of forest in one year.

Panels used: URECO Peach (URECO FAM365E7G-BB)

Time to build: Two weeks from the time of procurement to delivery of materials to complete installation.



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The Helios Energy™ Impact

Habitat for Humanity found Helios Energy to be an excited and willing partner on these projects. From the beginning, Helios was ready to engage with Habitat for Humanity to understand the budgetary and site-specific restrictions of these projects and realize the potential of solar power for these homeowners. Members of the Helios Team made it a priority to get to know the Habitat for Humanity Team and work with them in an amicable partnership, from start to finish. Throughout the process, Helios was afforded the opportunity to volunteer with HFH and work side-by-side with the future homeowners.



Habitat for Humanity Williamson-Maury (HFHWM) is a non-profit, 501(c)3 organization and ecumenical Christian ministry that partners with local families in need and donors to build stable, safe homes and sell them with an affordable mortgage. HFHWM was fully incorporated as an affiliate of Habitat for Humanity International on December 5, 1992.

HFHWM offers a hand-up, not a handout. We build and sell energy-efficient, craftsman-style homes to qualifying families. Habitat serves as both the general contractor and the mortgage lender on all of the houses. Habitat brings together sponsors and volunteers to fund and build each home in partnership with families. More than 70% of the work done on each house is done through volunteer labor, and HFHWM receives donations of money and materials from individuals, companies, and groups who are committed to supporting Habitat. A volunteer Family Selection Committee qualifies applicants for the Homeownership Program.

Habitat for Humanity Williamson-Maury is committed to improving the lives of local families by building affordable, quality, sustainable, and energy-efficient homes throughout the community.



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