

Title: Rural Energy Development in the Heart of Texas

Team Name: RED HOT

Location of Proposed Plans: Heart of Texas Region – focus on China Spring, TX (Population ~1300)

Community benefitting: Families within rural China Spring community experiencing financial hardships, which limits their ability to pay electricity bills. Family identification assisted by China Spring Cares.

### **Project Description**

Energy poverty is not limited to the developing world alone. Lack of access to modern, clean, and affordable energy services constitutes a need for intervention. In the Heart of Texas, many rural families are experiencing such a need – low-income households and aged infrastructure often leave these individuals with an electric bill that cannot be paid in favor of other necessities, such as food and rent. Our project proposes to engage with one such community, specifically in the China Spring area, which is part of McClennan County Texas, and uncover opportunities for solar energy integration that contributes to the goals of renewable energy development, as well as alleviating financial burdens to community members.

Our plan is to foster relationships and engage in sociotechnical conversations regarding the barriers to renewable energy development in rural and low-income communities. Our model includes a group to bridge the gap between social and technical needs, a local solar installer, a rural electric Co-op, and a community advocacy group. This partnership will work in increasing energy literacy, building community trust, and finding a shared development value among all parties. This will be done through a variety of community workshops to allow opportunities for questions, concerns, and needs to be heard. Following this, technical workshops will be conducted to develop constraints and preliminary designs. These preliminary plans will be filtered back through the community multiple times to inform an iterative design process both technologically and financially.

Funds will be used to employ part time staff members dedicated to project management, coordination efforts, and communication among partners and parties. Additionally, support for each of the partners in compensation for their time, consultation, and expertise will be used from the funds. Remaining funds will be used to develop a demonstration site or other small-scale installation of equipment for the purposes of data collection, feasibility, and community education.

Video Link: [RED HOT](#)

Organization: JustEnergy – Kayla Garrett, Humanitarian Engineer, Ph.D. Candidate Environmental Science; Brian Thomas, Executive Director, M.S. Electrical Engineering; Natalie Ortiz-Lovince, Social Worker, M.S.W., M.Div. [james@justiceandmercy.energy](mailto:james@justiceandmercy.energy)  
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Project Members: Solar Waco – Lloyd Alcorn, Chief Executive Officer; Heart of Texas Electric Co-Op – Jake Schmidt, Project Specialist; China Spring Cares – Brenda Stephens, Executive Director

Other Parties: Ryan McManamay, Ph.D, Independent Contractor and Community Liaison