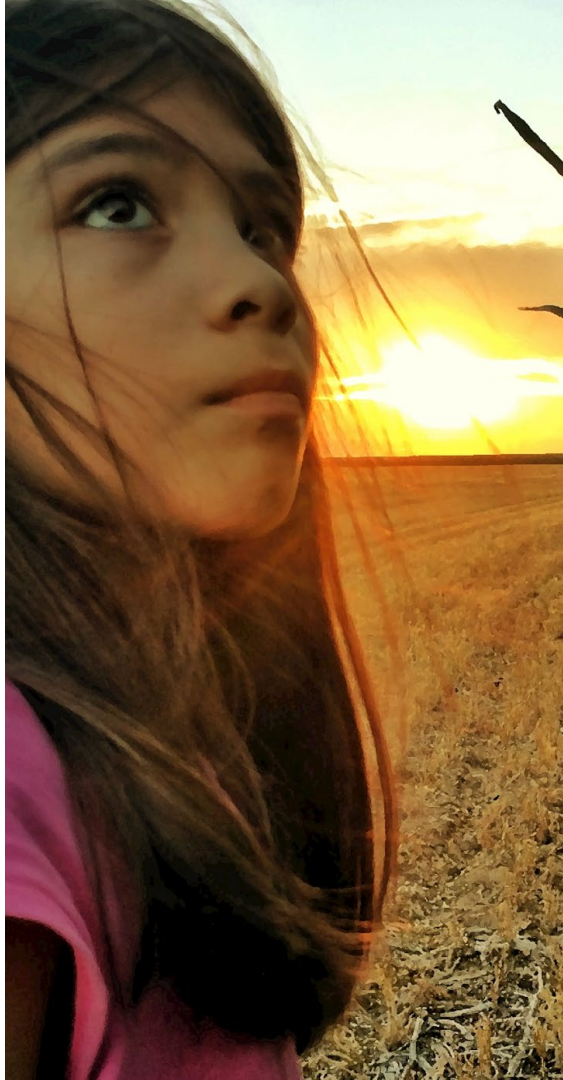




Community  
Services Agency  
of South Texas



## NEW PATHWAYS FOR EQUITABLE SOLAR IN TEXAS

**Vision:** Deploy rooftop solar to households owned or rented by low-income families at no cost by pairing funds from:

- Utility energy efficiency programs
- Other federal, state, or local govt. funding

# Team Members

- **Texas Energy Poverty Research Institute (TEPRI)**
  - project lead
- **Frontier Energy** – utility program implementer and South Texas lead
  - **Community Services Agency of South Texas**
  - **AEP Texas** – Utility partner
- **Texas Solar Energy Society (TXSES)** – Austin lead
  - **Austin Area Urban League**
  - **Austin Energy** – Utility partner



*Community Services Agency  
of South Texas*



# New Pathways for Equitable Solar in Texas

- VISION: Deploy rooftop solar to households owned or rented by low-income families at no cost by pairing funds from utility energy efficiency programs and other federal, state, or local govt. funding
- CRITICAL BARRIERS
  - Limited Community Awareness
  - Spending Limits in WAP and LIHEAP
  - SIR requirements
  - Lack of Program Experience/Infrastructure
  - Diverse Utility/Rate/Regulatory Structures in Texas
  - Not part of State Plan
- KEY PATHWAYS
  - Develop pilot projects in two electricity markets
  - Assist Texas Department of Housing and Community Affairs (TDHCA) to write rooftop solar into LIHEAP and WAP plans; develop protocols for implementation
  - Inform and work with community groups to pilot projects

# Community Context – Carrizo Springs

- Population of 5,000-6,000 residents, County Seat
- 80-95% of households identify as Latino
- 27% of households below **federal** poverty level
- Located in a competitive retail electricity market; electricity distribution service and energy efficiency programs provided by AEP Texas, an investor-owned utility
- Community interests primarily articulated through the Community Services Agency of South Texas (CSAST)
  - CSAST, AEP Texas and Frontier Energy have successfully partnered to meet energy needs for over a decade



# Project Insights – Carrizo Springs

## Strategies

- Lead with CSAST to identify pilot opportunities/community assessments
- Utilize smaller system sizes
- Educate community on maximizing value from their systems
- Minimize installation costs
  - Eliminate marketing/outreach
  - Utilize competitive bidding
  - Concentrate installations in a small area
  - Use a consistent system design

# Project Insights – Carrizo Springs

## Outcomes

- 13 2kWdc systems installed at Villa de Reposo elderly housing 12/22
- Total cost: \$2.92/WDC
  - \$1.95/WDC via AEP Texas targeted low-income weatherization program
  - \$0.97/Wdc via HUD repair funding secured by CSAST
- Developed community education materials in English and Spanish
- Working to evaluate savings via meter data, share results with TDHCA

# Community Context – Austin

- **Austin has significant wealth and racial wealth divide**
  - Among households with no net worth, black families accounted for 34% and Latinxs accounted for 29%, while white families made up 18% of the total
  - The homeownership rate is 32% for Black Austinites, 35% for Latinx, and 52% for white Austinites
  - Income levels are geographically delineated with low-income households residing on the east side of town



# Project Insights – Carrizo Springs

## Strategy

- Team: Austin Area Urban League, Texas Solar Energy Society, Travis County
- 10 single family dwellings
- Existing relationships with income qualified homeowners
- Assistance to homeowners understand the program – *manage expectations*
- Provide assistance with governmental forms
- Identify installers and manage installations
- Identify Housing stock-solar suitable
- Aim for homes that are geographically clustered



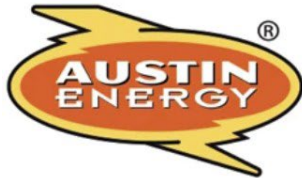
# Project Insights – Carrizo Springs

## Outcomes and Progress

- Engaged the right local partners
- Identified potential sources of funding to replace WAP/LIHEAP
- Working with County Commissioners to reprogram unused funds for solar

# Financing

- Austin Energy Solar Rebate - \$2500 –
- Texas Department of Housing and Community Affairs (TDHCA)
- Travis County- use existing funds that have been in reserve for septic repairs



**Rebates & Incentives**  
Saving You Money and Energy

# What's Being Offered

- **Rooftop solar as an energy efficiency measure:** Installation of relatively small (3 kW<sub>DC</sub>) rooftop solar energy systems that provide energy to the customer's side of the electric meter.

## Expected energy and electric bill savings:

	Austin region
Expected energy savings	A 3 kW <sub>DC</sub> system is expected to produce 3,600 – 4,500 kWh per year, depending on the specific roof tilt and orientation.
Expected electric bill savings	Energy savings is valued up to \$675 per home annually.

<sup>[1]</sup> Energy is modeled using PVWatts, a tool developed by the National Renewable Energy Laboratory.

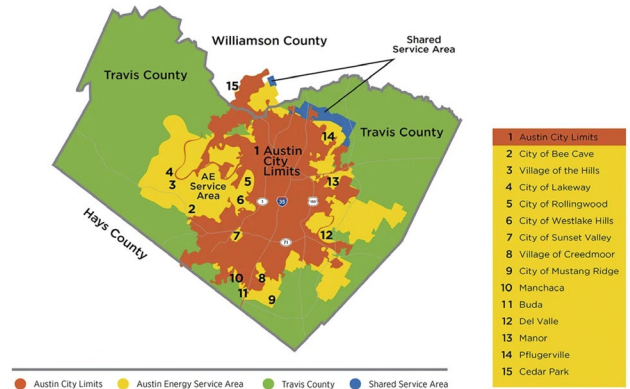
<sup>[2]</sup> Assumes a retail energy price of \$0.15/kWh.

# How Much Does it Cost?

- **Austin, Texas (Austin Energy territory)**
  - Austin Energy provides \$2,500 rebate per home if system at least 3 kW
  - **Indicative Bids:** As of December 2022, the cost of solar is \$3.00 per watt, or \$9,000/home
  - The balance of \$6,500 per home is needed from a secondary source – our project has looked at to the County, WAP, LIHEAP as potential sources

## **AUSTIN ENERGY SERVICE AREA**

50% City of Austin • 50% Outside City of Austin



# Looking Forward

- Install solar on households using public funding streams in combination with available utility incentives
- Educate households with low-incomes about solar benefits and opportunities to participate
- Develop and refine case studies for the Texas Department of Housing and Community Affairs (TDHCA)
- Work with TDHCA to develop guidelines for pairing WAP and LIHEAP funds for roof-top solar
- Create How-To Guide for others to use

# Conclusion and Key Takeaways

- Creating the process is slow. State agencies want to see proof of concept.
- We will have to evaluate how home-owners respond over time.
- Community groups who have experience with WAP/LIHEAP may have the easiest time understanding the process but there may be limitations on whether their clients can use the funds due to restrictions in multiple use.

# Thank You

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# NEW PATHWAYS FOR EQUITABLE SOLAR IN TEXAS SOLAR 2023 (ASES)

