

Solar 101: El Paso Community Power Hubs

Sam Silerio, Texas Program Director

Alyssa Garza, Solar Access and Affordability Senior Associate

Joaquin Escalante, Senior Texas Program Associate



What we will go over today:

- 1** About SUN
- 2** El Paso Community Power Hubs Program
- 3** How Solar Works
- 4** Solar Economics
- 5** Next Steps and Q&A

Housekeeping in-person and online

Online:

- This webinar is being recorded, we'll share the recording and slides with everyone who RSVP'd afterward.
- Please keep microphones muted unless speaking.
- Feel free to ask questions in the chat throughout but there will also be a designated Q&A after the presentation.

In person:

- Feel free to ask questions throughout but there will be a designated Q & A after the presentation.



About SUN and Our Impact

Solar United Neighbors (SUN)

- We're a vendor neutral, national 501(c)(3) nonprofit.
- We help people go solar, join together, & fight for their energy rights.



SUN's Texas Program impact since 2019



452 people gone solar with us

4.2 MW installed capacity

\$12M invested in local solar

\$24.9M energy savings over 25 yrs

103 solar jobs created

55,185 metric tons of lifetime CO2e offsets



El Paso Community Power Hubs

Project overview

\$591,000 grant funded by the Department of Energy (EECBG)

- Fully funded solar installations for certified nonprofits and small businesses. 10 installations total.
- Building owners apply; non-owners must have documented permission.
- Does not cover roof repairs, electrical upgrades, or anything outside of the solar panel system.

Includes access to the voluntary Solar Renewable Energy Credit (SREC) program.

Our Partners



The application process

- Online application portal
- Nonprofit partners and SUN will help guide you through the application
- SUN will be the main point of contact for application once submitted
 - SUN will inform you if you made it to the next round
- There are three rounds
 - Top 40 applicants
 - Top 20 applicants get a solar proposal
 - Top 10 applicants receive grant-funded solar installations

Application scoring process

- Need to be in the city limits
- Have proof of ownership of the building or permission from owner
- Roof condition - less than 7 years old or structurally certified
- Good financial standing with city, state, and federal govt
- Explain how projected saving will be used
- Ability to cover long-term operational and maintenance
- Provide electricity bills for last 12 months
- Energy efficiency and weatherization improvements

Application Process (continued)

- Additional opportunity for non-awardees to self-fund their solar installations.
- Once selected, you have time to decide and ask more questions about your system.
- You sign a contract and permitting and installation begin.
 - SUN checks in will both you and the installer.
- Systems get permission to operate (PTO).
- Solar celebration!

Program Timeline

- First Solar 101 info session: March 31, 2026
- Application Opens: April 3, 2026
- Second Solar 101 info session: April 7, 2026
- Application Closes: April 17, 2026
- Final Applicants Selected: June 26, 2026
- Signed Solar Purchasing Contract Deadline: August 31, 2026
- Systems Installed: October 31, 2026
- Solar Celebration: TBD!

Why apply for this program?

- Fully funded solar installation
- Best value maximizes energy savings
- Support provided throughout the process
- Reduction on your electric bill

Why apply for this program?



Blankets and Breakfasts
How Solar Helps a Church
Better Serve its Community

Additional Considerations

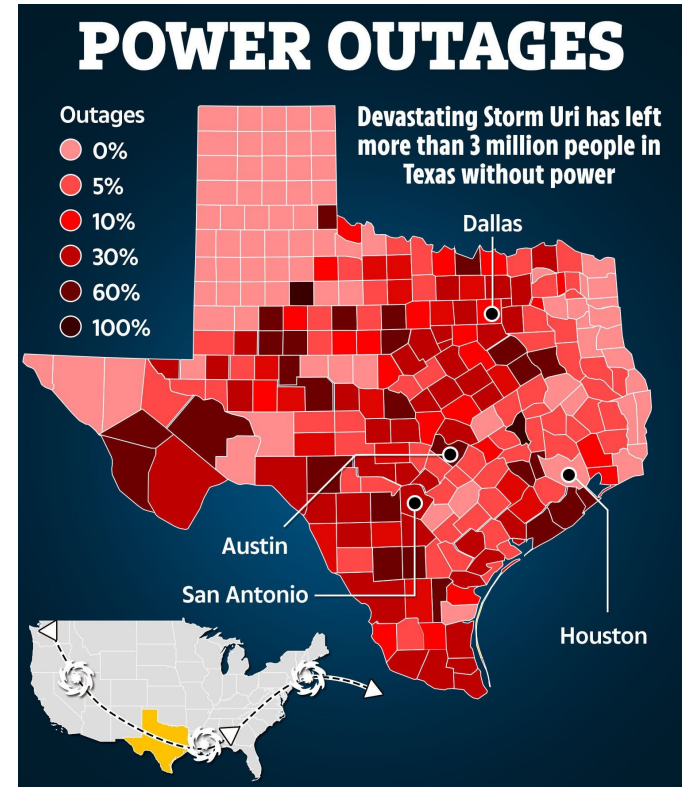
Resilience Center Funding:

- SUN would like to identify 1-2 of the awardees who might be good candidates for battery storage (**to be funded separately from this grant**) in addition to their solar installations
- Participant application will include an option if interested
- Interest does not guarantee funding for battery storage

System component: batteries

What happens when the power goes out?

- When the grid is down, solar shuts off (safety mechanism)
- Batteries are essential to retain power during outages





Battery storage for a 4.62 kW rooftop solar array with back-up battery.

The value of battery storage

You might want storage if...

- You experience frequent utility outages (backup power)
- Critical loads (i.e. well pumps, medical equipment)
- Emergency/disaster preparedness
- You want to save additional money

For more battery information visit:

- solarunitedneighbors.org/storage



How solar power works

Local solar benefits everyone

- More solar strengthens the energy grid, making it **more secure, resilient, and reliable**.
- More solar shields solar owners from rising utility bills.
- It **lowers costs for everyone** by reducing the need for expensive power plants and grid upgrades.
- It cuts air and water pollution.
- And more solar **powers local economies** with good-paying jobs and homegrown investment.



Important terms

A **kilowatt (kW)** is a measurement of **power**



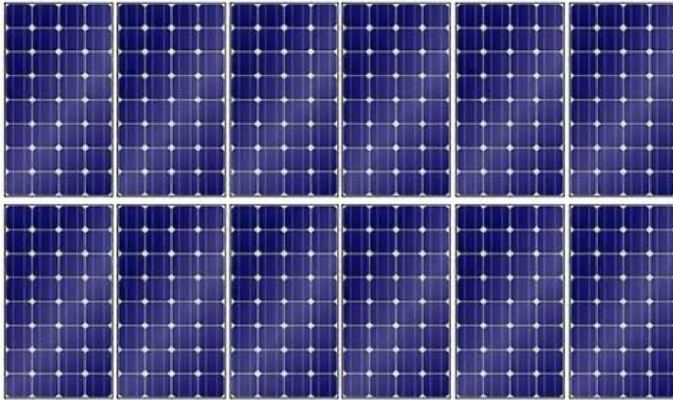
This space heater requires **1 kW** of **power** to run

A **kilowatt-hour (kWh)** is a measurement of **energy**



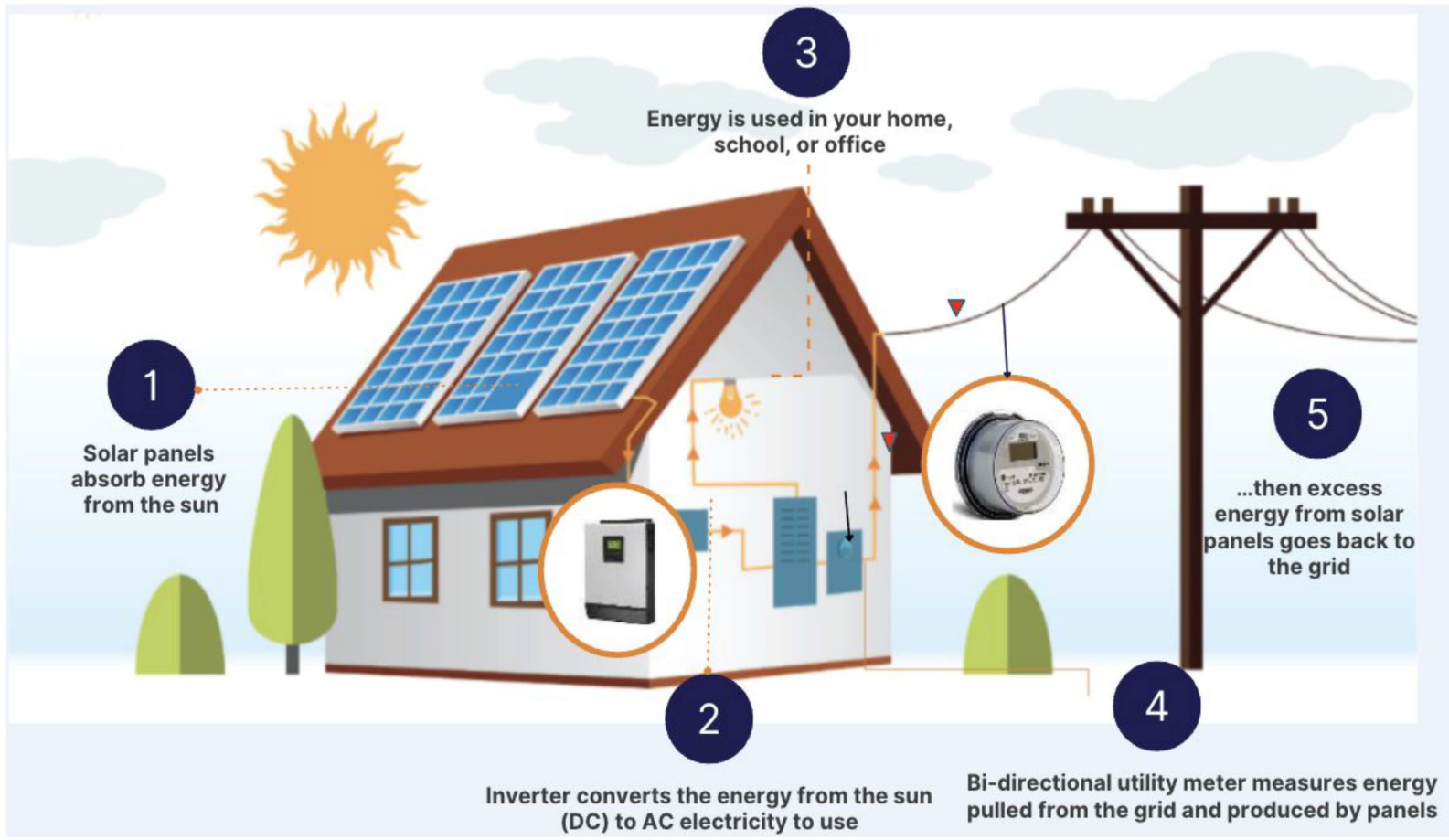
If the space heater runs for **4 hours**, it uses **4 kWh** or **energy**

Important terms



4.2kW Solar Panel Array to scale
using 350W panels

- **Kilowatts (kW):** System measured in kW
- **Kilowatt-hours (kWh):** Electricity production in kWh
- **Average size:** 6kW to 7kw, size based on site & goals (budget, covering 100% consumption)



How solar power works



Solar photovoltaic (PV) converts solar energy to electricity.



Solar panels generate **DC electricity**, which an **inverter** converts to **AC** for use in your home.



Multiple panels form an **array**, and any excess power can be sent to the grid or stored in a battery for later use.

System components: inverters



String Inverter

Mostly used for ground mounts & commercial



String inverter & DC optimizers



Microinverters

System Components: Electrical Panel

How does my my solar connect to my electrical panel?

- Simple connection in panel
- Most home electric systems don't need upgrades before solar



System components: racking



Racking: standing seam metal roof



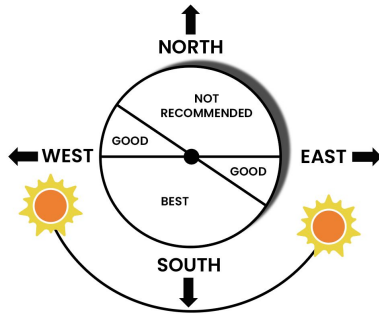
Racking: ground mounted solar



What's a good roof for solar?

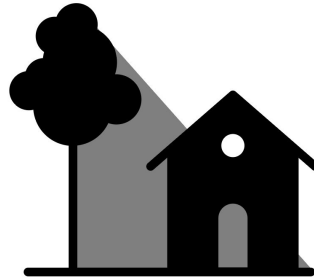
1

Roof Orientation



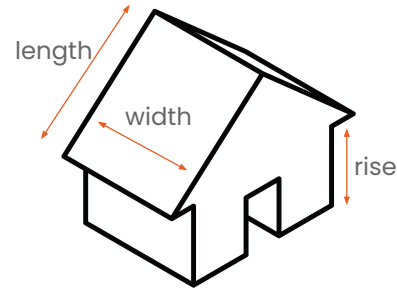
2

Little or no shading



3

Enough space to mount panels



Frequently asked questions

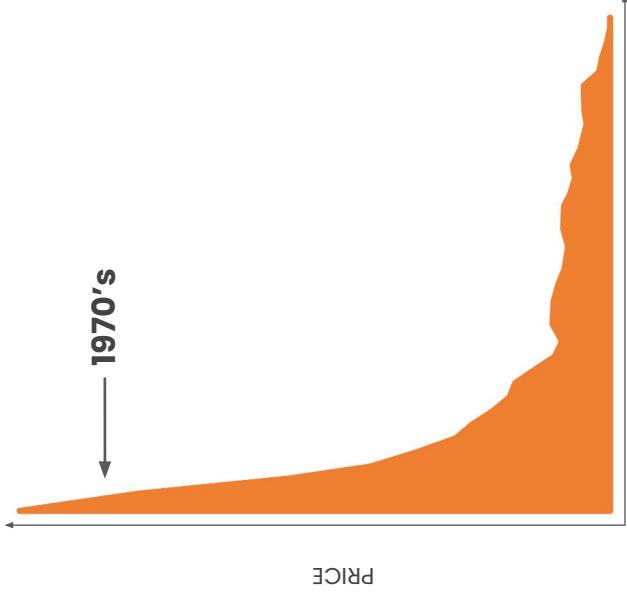
- Warranties?
- Small business / nonprofit insurance?
- Maintenance?
- How long does a system last?
- What if I'm In a historic district?



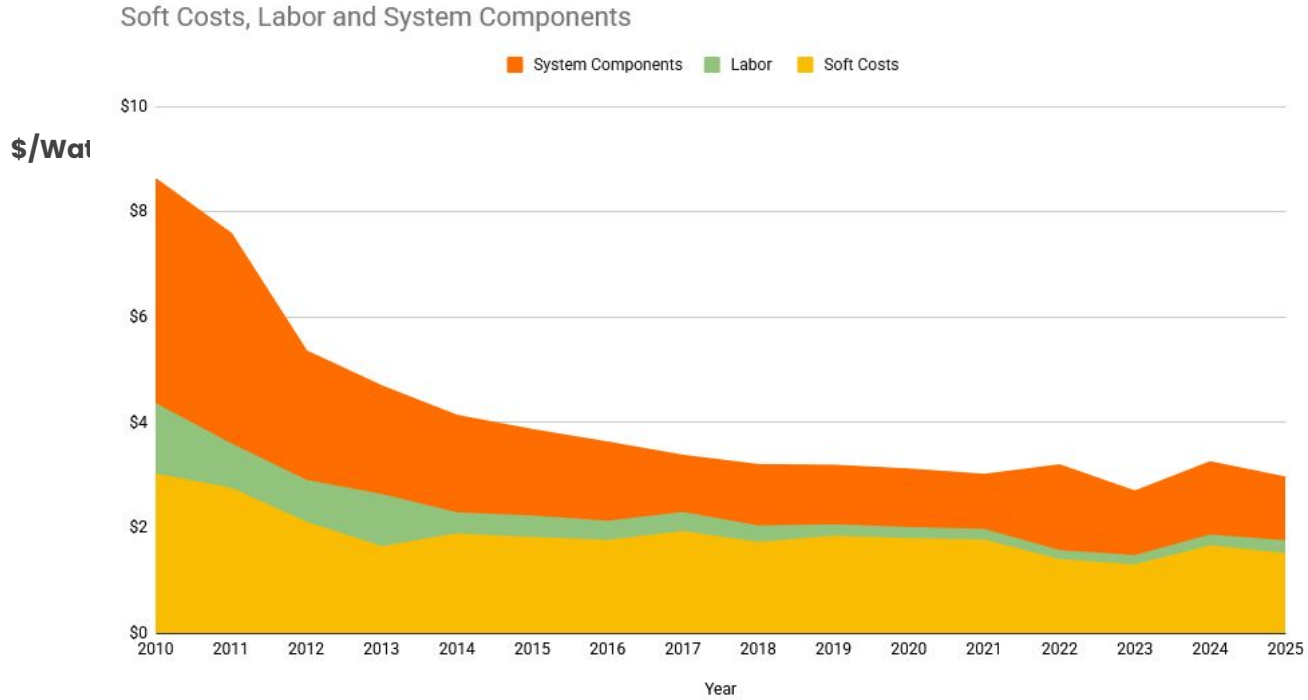
The economics of solar

Rooftop solar is a great investment!

- Costs have dropped 73% since 2010
- Solar is no longer a specialty or boutique project
- Excellent return on investment



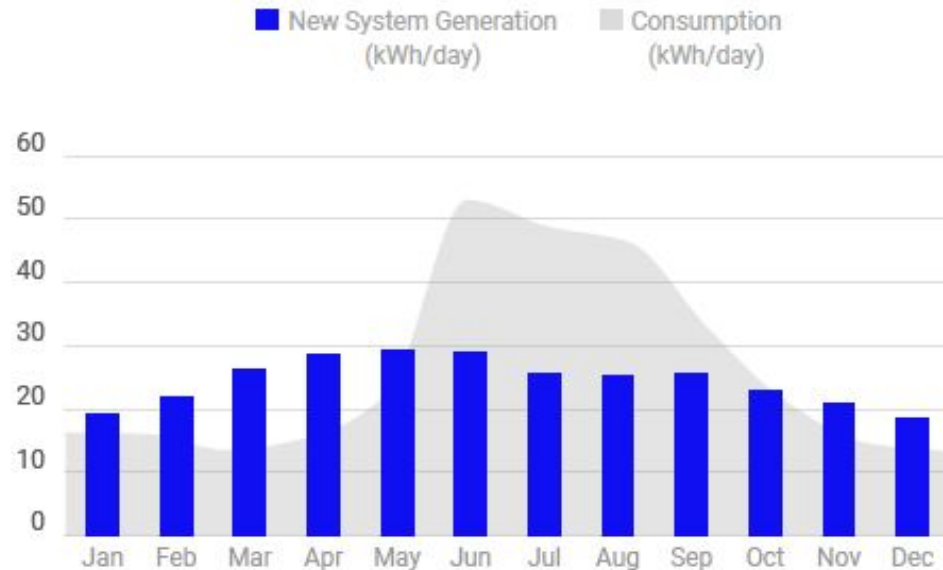
Breaking down the cost of solar



Solar offset

94%
Energy From Solar

System Performance



El Paso Electric (EPE)

Compensation for Solar Homeowner's Extra Energy

- EPE pays solar homeowners just \$0.02 per kWh for excess energy sent to the grid
- Then the utility turns around and sells that same energy to your neighbors for \$0.15
- EPE has never backed these rates up with a study

El Paso Electric (EPE)

An investor-owned monopoly utility

- Owned by JP Morgan Chase's Infrastructure Investment Fund
- Most of Texas has competitive retail choice from ERCOT
- The cities of Austin and San Antonio own their electric companies
- Of 10 largest Texas cities, El Paso is the only one served exclusively by an IOU monopoly

El Paso Electric (EPE)

A new monthly fee JUST for solar customers

- EPE will now charge exclusively for customers with solar panels: \$4.75 for every kW of peak demand each month
- Most homes hit a peak of 6–10 kW in a typical month — think running your AC, oven, and a few other appliances at the same time
- That means most solar customers would pay a variable fee of **\$28.50 to \$47.50 every month** just for having solar

EPE's Demand Charge penalizes normal behavior

Do: Distribute your energy consumption throughout the day.



morning



afternoon



evening

Don't: Use multiple electrical appliance at the same time. EPE charges you extra for this, even though it's perfectly normal!



morning



afternoon



evening



**Wrap up and
time for questions**

Next steps

- Check your facility's roof and electrical panel.
- Reach out to us or our community partners for assistance to prepare! **The application opens April 3 and closes April 17.**
- The recording and slides from today's presentation will be shared.
- The application will be on the City of El Paso's website, link will be shared with you soon.

Solar 101 info session

- Join our Solar 101 info session on April 7 from 6 - 7 p.m. We'll guide you through the process of applying for the El Paso Community Power Hubs program.
- The session will be delivered in English and Spanish.
- This session will be hybrid. Join in-person at the Center for Civic Empowerment or virtually via Zoom.



Thank You!

Questions or ideas? Reach out to us at
TXteam@SolarUnitedNeighbors.org!

