



4140



Transform Fresno Solar Efforts Impacts and Opportunities

GRID Alternatives Central Valley

Introduction

GRID Alternatives is an international Solar installer with 9 U.S. offices and programs in Nepal, Nicaragua, and Mexico.

GRID Alternatives Central Valley opened in Fresno in 2009 and has assisted low-income families in 8 valley counties.

GRID Alternatives Central Valley is one of the many Community Based Organizations participating in The Transform Fresno effort also known as TCC.

Today's presentation is designed to provide a progress and program update, inform others how to get a solar system, and share information on training

Presenting Today

Jesse Arreguin: Development Consultant and Former Development Officer for GRID Alternatives.

Aracely Rodriguez: GRID Alternatives Outreach Coordinator.

Shanna Handley: Workforce Development and Volunteer Coordinator.

GRID Alternatives Central Valley Leadership

Tom Esqueda, Executive Director (Retires April 29, 2022)

David Griffin: Incoming Co-Executive Director

Karina Gonzalez: Incoming Co-Executive Director:

TCC Update

Since signing our TCC Contract in April 2019 GRID Alternatives has achieved the following milestones:

Total Houses Installed: 27

DC kW Installed: 124.95/182 kW contracted

Average System Size: 4.63 kW Slightly Larger than projected at 3.0 kW

Average Cost Per System: \$18,520.00

Project Completion Total: 69%

Lessons Learned

COVID 19 and its Attendant Challenges

Housing Stock Challenges: 40% Rejection Rate on Proposed Installations

Leading Causes of Install Rejections:

- **Substandard Roofs**
- **Outdated Main Electrical Utility Boxes**

THE WORK AROUND:

3rd Party Lease Option.....Generates an Addition Funding Stream that GRID Uses for Roof Repair. GRID Incorporates Profit Margin From Lease Agreements.











Qualifying for a TCC Funded Solar System From GRID

Do You Pay More Than You Can Afford For Electricity?

Through TCC and GRID Alternatives You Might qualify for a Solar System That Saves Money on Your Electricity Bill.

GRID's Energy For All Program Will Help You

- **Save Money**
- **Invest in Your Home**
- **Bring Clean Power to Your Neighborhood**

HOW TO QUALIFY?



Must be a homeowner and home must be owner occupied



Must meet income limits for TCC



Must live within TCC zip codes such as:

93701

93706

93721

What are the income limits?

Income verification will be required and varies on a case-by-case basis.

If you own your home and are at or below these income requirements, you can save up to **80%** on your electric bill!

Do you
qualify?

PEOPLE IN YOUR HOUSEHOLD	ANNUAL HOUSEHOLD INCOME
1-2	\$34,840
3	\$43,920
4	\$53,000
5	\$62,080
6	\$71,160
7	\$80,240

Household limits
expire June 1, 2018.

THE ENERGY FOR ALL PROGRAM WILL HELP YOU:

- Save money
- Invest in your home
- Bring clean power to your neighborhood
- Be a clean energy leader in your community

Contact us today and find out if you qualify for our energy savings program:

Call **Aracely Rodriguez**
(559) 214-0209

Helping You and Your Neighbors



Disadvantaged Communities
- Single-Family Solar Homes (DAC-SASH) program is overseen by the California Public Utilities Commission and administered by GRID Alternatives through the **Energy for All Program**. GRID Alternatives is a community-based nonprofit organization with offices throughout California.
EnergyForAllProgram.org



Savings for you, clean
power for your community.

ENERGY FOR ALL
A program of GRID Alternatives

GRID Alternatives **Central Valley**
4140 N. Brawley Avenue, Ste. 108 • Fresno, CA 93722

GRID Alternatives is a fully licensed solar contractor, California License #867533

How to apply?

Call

Call us for an evaluation to determine if your home meets the requirements for our solar program

Gather

Gather necessary documents and information required for your application

Sign

Sign your application

Design

Next steps: GRID Alternatives will design a system to best suit your home using your annual Kilowatt usage and home square footage

Save

Our goal is to save you up to 75% on your electrical bill

WHAT COMES AFTER THE APPLICATION HAS BEEN SUBMITTED?

- Expect to wait 2-3 weeks for construction to do a site visit on your home
- At the site visit they will measure the square footage of the roof, and evaluate the condition of the roof to determine if it is suitable for a solar system



What if my roof is not fit for a solar system?

- There is funding available to fix your roof if you live within the TCC zones
- Eligibility for re-roofing varies on case-by-case basis, therefore you should call us if you are concerned about a bad roof so we can properly analyze your situation





Final Steps

- Once a design has been created using the data from the site visit and your application, we will move forward with the application if the homeowner feels comfortable with the amount of savings we can offer.
- Once the contract has been signed, the installation can take up to 3-4 weeks to be scheduled. This may vary if there are delays outside of our control
- The installations are done by volunteers of our GRID Training Program

Contact us!

Aracely

(559)214-0209

arodriguez1@gridalternatives.org



- ★ SOLAR INSTALLATION TRAINING
- ★ FIRST AID CPR/AED
CERTIFICATION
- ★ OSHA 10 CERTIFICATION

Central Valley GRID ALTERNATIVES



Solar Installation Basic Training









Earn Industry Recognized Certifications

Certificate of Completion

has completed the requirements for

**Adult and Pediatric First
Aid/CPR/AED**

conducted by
American Red Cross

Date completed:

Validity period: **2 Years**

Certificate ID:



American
Red Cross



Scan code or visit:
redcross.org/confirm



This card acknowledges that the recipient has successfully completed:

10-hour Construction Safety and Health

This card is issued to:

Trainer Name

Date of Issue



Installation Basics Training ARRAY BASIC CERTIFICATE SUMMARY

demonstrated basic competency in the following solar PV
installation skills

Job Site Safety (2021-09-13)

- Demonstrate & encourage adherence to Heat Illness Prevention Plan
- Encourage volunteers to wear proper PPE
- Set up and explain OSHA requirements of proper ladder use
- Instruct on proper power tool use
- Encourage and demonstrate compliance w/ site safety plan during all install phases

Fall Protection (2021-09-13)

- Install, under supervision, fall protection to manufacturer's specifications
- Encourage fall protection plan during all phases of the install

Array layout (2021-09-02)

- Translate array layout considering setbacks and shade
- Mark layout for array and racking
- Locate rafter center and mark misses

Racking Installation (2021-09-07)


- Install stand-offs and flashings to manufacturer's specifications
- Cut and splice rails to manufacturer's specifications
- Install and align rails according to manufacturer's specifications
- Bond racking according to manufacturer's specifications

Module Level Power Electronics (MLPE) Installation (2021-09-06)

- Install MLPE to manufacturer's specifications
- Ensure trunk cable is properly terminated and watertight (micros)
- Ensure proper electrical connection in MLPE circuit or string
- Wire management - Properly dress and secure cabling
- Homenum installation, identification, labeling, and termination

Module Installation (2021-09-06)

- Install and align modules
- Manage module leads/wires
- Ensure end and mid-clamps are properly seated and torqued


Erik S. Symonds
Director of Workforce Development

2021-09-13
Date

GRID Alternatives seeks to provide an effective, efficient, and equitable pathway into the solar industry. We provide trainees with unique, hands-on training opportunities under the supervision of our professional solar installation staff. www.gridalternatives.org



Installation Basics Training ELECTRICAL BASIC CERTIFICATE SUMMARY

demonstrated basic competency in the following solar PV
installation skills

Job Site Safety (2021-09-13)

- Demonstrate & encourage adherence to Heat Illness Prevention Plan
- Encourage volunteers to wear proper PPE
- Set up and explain OSHA requirements of proper ladder use
- Instruct on proper power tool use
- Encourage and demonstrate compliance w/ site safety plan during all install phases

Electrical Safety (2021-09-13)

- Identify electrical hazards and how they can be removed or controlled
- Test components with a multi-meter (A vs. V, DC vs. AC)
- Understand causes of arc flash and how and when to wear PPE
- Demonstrate electrical safety plan during all phases of install

Electrical Layout and Mounting (2021-09-07)

- Read and translate single-line diagram to wall
- Plan and install electrical Balance of Systems
- Install box fittings and bushings

Conduit Bending and Installation (2021-09-09)

- Cut and ream conduit
- Measure and bend conduit for 90 degree angle, offsets, kicks, and saddle bend
- Install flashing for stub up to manufacturer's specifications
- Install conduit to code for including appropriate strapping and fittings
- Ensure Conduit is properly supported on blocks

Electrical Wiring (2021-09-09)

- Prepare and execute wire pull
- Strip wire cleanly without "nicks" or knicks
- Terminate wire to appropriate torque
- Wire and bond equipment grounding conductor at rails and boxes
- Wire junction box, AC disconnect, production meter


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TCC Transformative Climate Communities Program

FRESNO ZIP CODES:
93701, 93706, 93721

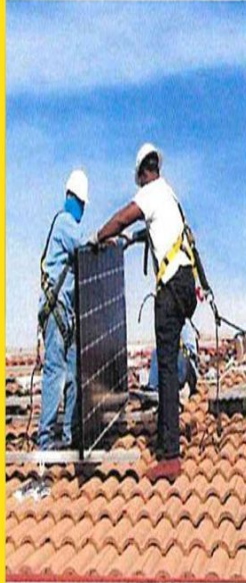
- **OSHA 10**
- **FIRST AID CPR/AED**





OSHA 10 Occupational Safety Health Association

OSHA 10 hour Industry Safety Training





Day 1

Introduction & Classroom Guidelines 8 am – 8:15 am

Introduction to OSHA 8:15 am – 9:15 am

Falls 9:15 – 10 am

Break 10am – 10:15 am

Falls (Continued) 10:15 am – 11:00 am

Electrocution 11:00 am – 12 pm

Lunch 12 pm – 1 pm

Struck-By 1 pm – 1:45 pm

Caught-in or between 1:45 pm – 2:30 pm

Day 2

Sign-in/Review 8 am – 8:30 am

Personal Protective Equipment (PPE) 8:30 am – 9:30 am

Health Hazards in Construction 9:30 am – 10:30 am

Break 10:30 am – 10:45 am

Tools- Hand and Power 10:45 am – 11:45 am

Lunch 11:45 am – 12:45 pm

Scaffolds 1 pm – 2 pm

Stairways and Ladders 2 pm – 3 pm

OSHA 10-hour Syllabus Schedule



**First Aid
CPR/AED
Adult
Child
Pediatric**

**Red Cross
2 Year
Certification**





Sign-In & Registration (15 min) 8 AM - 8:15 AM

Introductions & Criteria for Course Completion (15 min) 8:15 AM - 8:30 AM

Lesson 1 Before Giving Care & Checking an injured or ill person (1 Hr.) 8:30 AM - 9:30 AM

Lesson 2 Cardiac Emergencies & Giving Care (45 min) 9:30 AM - 10:15 AM

Break (10 min) 10:15 AM - 10:25 AM

Lesson 3 Using and AED (30 min) 10:25 AM - 10:55 AM

Lesson 4 Choking (20 min) 10:55 AM - 11:15 AM

Lesson 5 Sudden Illness (50 min) 11:15 AM - 12:05 PM

Lunch (1 Hr.) 12:05 PM - 1:05 PM

Lesson 6 Injuries (55 min) 1:05 PM - 2 PM

Lesson 7 Environmental Emergencies (30 min) 2 PM - 2:30 PM

Lesson 8 Conclusion (30 min) 2:30 PM - 3PM

First Aid/CPR/AED Syllabus Schedule

**Get Involved!
Be Empowered!
Start a new career!
Train with Central Valley
GRID Alternatives.**

Call Shanna Handley to enroll today!
(559) 548-6722 shandley@gridalternatives.org



CALIFORNIA STRATEGIC
GROWTH COUNCIL



Thank You Partners

Q & A