



# GROW SOLAR

ST. LOUIS



*“to discover and share knowledge about plants and their environment in order to preserve and enrich life”*



MISSOURI  
BOTANICAL  
GARDEN

## **EarthWays Center**

- The Garden's Sustainability Division
- 35+ community based sustainability programs in the region



## Who is the MREA?

- Founded in 1990 with the first Energy Fair
- Mission: *Promote renewable energy through educational courses in solar PV, solar thermal and small wind*
- **22** Group Solar Programs to date installing over 7,000 kW on over 1,000 properties.



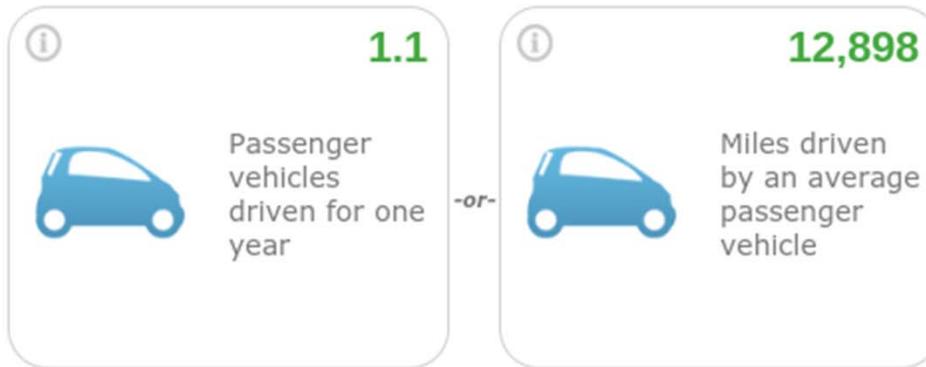
# Why **GROW SOLAR** ?

To create sustainable communities  
by making solar simple & affordable.

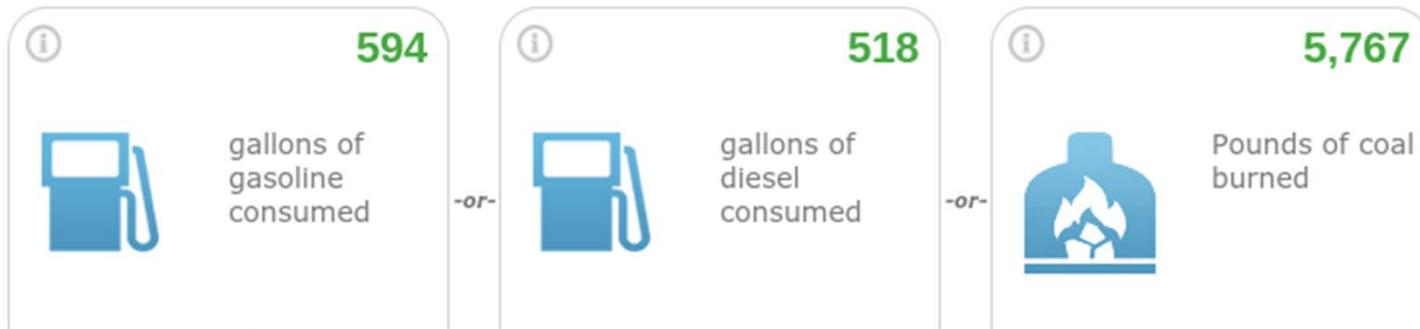


# Environmental Equivalencies for a 5.7 kW array (1 Year)

## Greenhouse gas emissions from



## CO<sub>2</sub> emissions from



Source: PVWatts & EPA Greenhouse Gases Equivalencies Calculator  
<https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator>

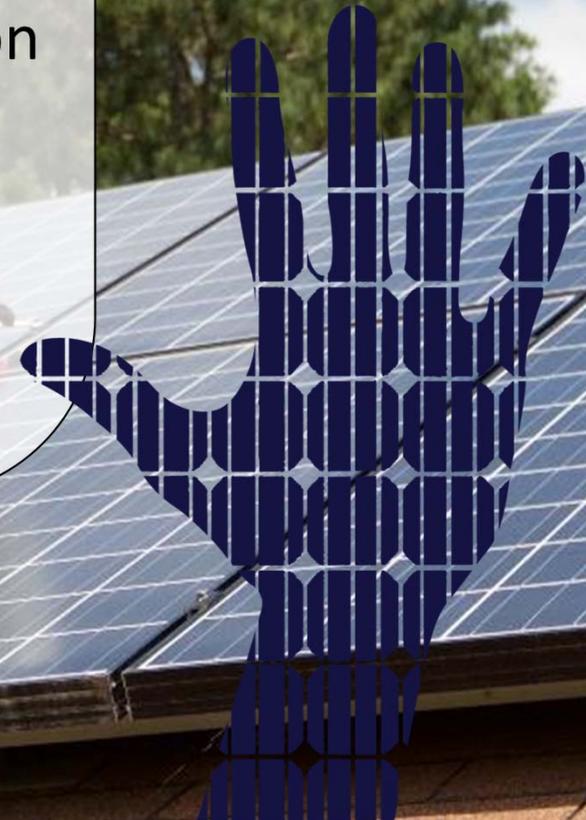
# What is a Group Buy?

## A Model for Lower Prices Through:

Economy of Scale

- Education/Outreach About Solar
- Organize A Group Buy
- Competitive Contractor Selection
- Deadline: November 15th 2019

**Everyone wins!**





# Grow Solar St. Louis Group Buy Program

- Pilot program focus: City of St. Louis, Clayton, Maplewood, Richmond Heights, and University City. Open to residents and small businesses.
- To get the special pricing of the program:
  - Must be a resident of either St. Louis City or St. Louis County.
  - Must attend a Grow Solar St. Louis Power Hour presentation.
  - Must sign a contract before November 15, 2019.
- **All-in Pricing**. Program pricing includes turnkey design, permitting, components, installation

# Group Buy

## How It Works

The more people go solar, the lower the price:

Base Price:

**\$2.76/Watt**

Base price is lower than StraightUp Solar's market rate.

### Additional Volume Rebates

Total KW	>50 KW	>150 KW	>250 KW
# Homes	7-10 homes	21-30 homes	35-50 homes
<b>Total Rebate</b>	<b>1%</b>	<b>2%</b>	<b>3%</b>

## Residential & Commercial Renewable Energy Tax Credit (Federal)

- **Tax credit of 30%** on qualified expenditures in 2019
  - Includes labor costs, system installation, interconnection wiring
  - Does not include new roof unless roof reinforcement is necessary to support the solar panels
- No maximum credit, but requires you have tax appetite
- Steps down to 26% in 2020.
- A home must be owned by the taxpayer but does not have to serve as the principal residence
- Incentive details at [energystar.gov](http://energystar.gov) or [irs.gov](http://irs.gov)

## **Ameren Missouri \$.25/W Rebate**

Systems operational starting July 1, 2019 - December 31, 2023 are eligible for a \$0.25 per watt rebate.

- Maximum solar system size for a solar rebate for a Residential customer is 25 kW
- Maximum solar system size for a solar rebate for a Commercial or Industrial customer is 150 kW.
- Maximum solar system size to qualify for net metering is up to the load of the facility or 100 kW.



## 5.7 KW Residential System

### Grow Solar Price

vs

### Market Price

<u>5.7 KW St. Louis Resi Roof Array</u>	
Installed Cost <b>(\$2.76/Watt)</b>	\$15,732
Estimated Adders	\$1,500
Ameren MO 25-cent rebate	- \$1,425
30% Federal Tax Credit (Post-Ameren rebate)	-\$4,742
Max group buy savings (\$3%)	-\$517
<b>Net Cost</b>	<b>\$10,548</b>

<u>5.7 KW Market Price Resi Roof Array</u>	
Installed Cost <b>(\$3.05/ Watt*)</b>	\$17,385
Estimated Adders	\$1,500
Ameren MO 25-cent rebate	- \$1,425
30% Federal Tax Credit (Post-Ameren rebate)	-\$5,238
Group buy savings	\$0
<b>Net Cost</b>	<b>\$12,222</b>

\*Source: Energy Sage. *How Much Do Solar Panels Cost in the U.S. in 2019?*



**StraightUp**  
SOLAR



# Solar Financing Options

## Clean Energy Credit Union

- 100% clean energy loans - 1st of its kind launched 2017
- Wholly-owned by Amicus Solar members
- Choose one or both of these loan types:
  - 12-18 month loan for 30% of system cost (covers the Federal Tax Credit)
  - 12-year fixed rate loan up to the remaining 70% of electric system cost

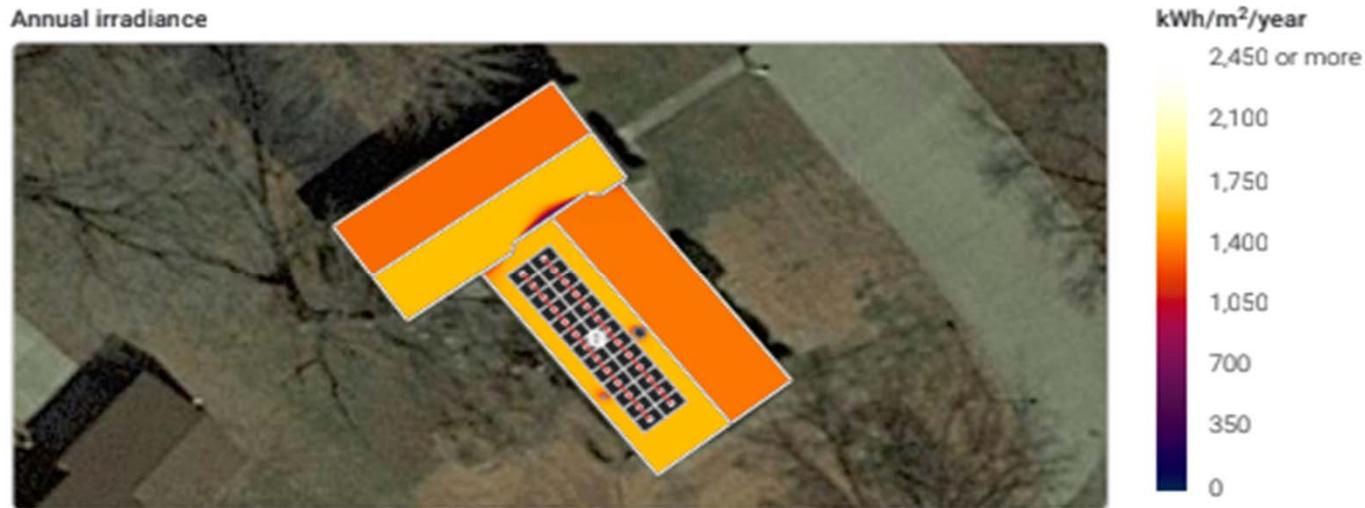


## PACE Financing

- Financing through Ygrene Energy Fund
- Up to 20-year loan
- Voluntary tax assessment placed on property
- Transfer assessment to next property owner
- St. Louis County residents - Missouri Energy Savings Program
- St. Louis City residents - Set the PACE St. Louis



# Customized Site Assessment

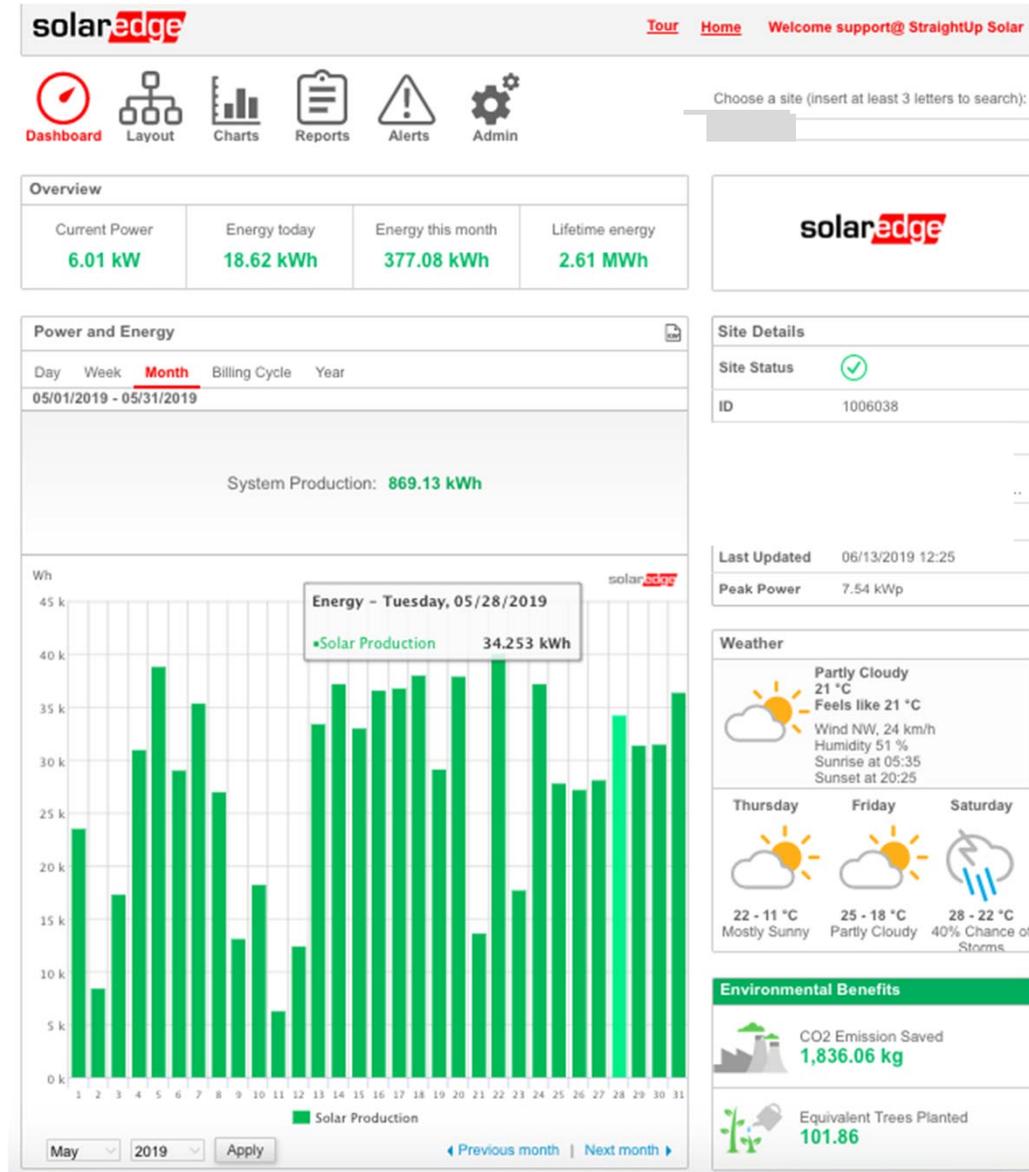


- System size and layout
- Module type
- Inverter type
- Slope, height of roof
- Complexity of electrical interconnection
- Type of roofing material
- Multiple PV arrays

## STEPS TO GOING SOLAR WITH AN INSTALLER

1. Accomplish a free site assessment, receive a proposal, review and sign purchase agreement (20% down payment)
2. Installer designs system & receives utility & permit approvals
3. Materials ordered & received
4. Your array is installed and energized
5. Start saving!

# Home Energy Report



# Energy Efficiency

- LED lighting
- Energy Star appliances
- High Efficiency Heating and Cooling (HVAC)
- Power strips
- Air sealing & insulation
- Electricity usage habits
- ***SUS will reimburse up to \$100 for an energy audit***

Ameren's efficiency incentive program can be found at [AmerenMissouriSavings.com](http://AmerenMissouriSavings.com)





## KEY INFO TO REMEMBER:

- **NOV 15**: Deadline to sign a contract for this reduced rate!
- Federal tax credit is 30% now; down to 26% in 2020.
- Consider an energy audit for your home.
- Sign up for a free site assessment today!



**2018 Results:**  
**60 Arrays**  
**582 KW signed**

