Welcome to

Solar Urbana-Champaign

Solar Power Hour!

We will begin shortly with instructions on how to interact with our presentation

Solar Urbana-Champaign

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midwest renewable energy association

CITY OF URBANA

prairieriversnetwork

faith in place

Go! MONTICELLO

Savoy ILLINOIS

urbana-champaign independent media center

COMMON GROUND FOOD CO-OPERATIVE

PARKLAND COLLEGE

Illinois Power Agency Consumer Protection Brochure

ILLINOIS SHINES

Supporting Solar Development in Illinois

Illinois Shines and the Adjustable Block Program are administered by InClime, Inc. on behalf of the Illinois Power Agency, an independent state government agency.

What is Illinois Shines?[1]

Illinois Shines is the brand name of the **Adjustable Block Program**, a state-administered program for new solar photovoltaic ("PV") systems. The program provides payments in exchange for 15 years of Renewable Energy Credits ("RECs") generated by new PV systems. These payments, made by Illinois utilities, vary depending on the system's size and where it is located. Participating in Illinois Shines is the same thing as participating in the Adjustable Block Program.

What are RECs and why are they valuable?

RECs represent the *environmental value* of the electricity generated from solar panels, but not the electricity itself. Whoever owns the RECs has the right to say they used that solar power. Utilities must purchase RECs to meet their obligation to supply a certain amount of power from renewable energy. RECs can also be valuable to businesses seeking to be able to say that they use solar power.

A home PV system might generate 50-200 RECs over 15 years. By participating in Illinois Shines, you will transfer the RECs from your PV system to an Illinois electric utility. Selling your RECs will not affect your PV system's production.

For more information on RECs, see a video at *vimeo.com/113250210*.

Do you have to allow your RECs to be sold in order to go solar?

Although you can keep your RECs or sell them to someone besides utilities, participating in Illinois Shines and thus allowing your RECs to be sold to a utility is likely to be your best financial option. Selling your RECs through this program will make it more likely that your PV system will save you money.

Photo: Thinkstock/Photos.com/Getty/Thinkstock

What information will you receive before you sign an installation contract?

Your contractor is required to provide you with an Illinois Shines Standard Disclosure Form. It includes contact information for everyone who has a part in your solar contract, information about the installation process, and an estimate of your system's costs and how much money you may save. Review this form carefully.

What are the financing and ownership options when installing solar?

The most common options are 1) buying the system, 2) leasing the system, or 3) signing a Power Purchase Agreement ("PPA"). If you lease or sign a PPA, you don't own the system, but you get many of the benefits. For more information, see *www.cesa.org/resource-library/resource/a-homeowners-guide-to-solar-financing-leases-loans-and-ppas*.

When deciding on the best option for you, consider:

- If you're buying the system, how much will it cost? Will you take out a loan to pay for it? How do the loan payments compare to projected reductions in your monthly electric bill?
- If you're leasing, how much is your monthly lease payment? How does that compare to projected reductions in your monthly electric bill? Do you have to put money down at the start?
- If you're signing a PPA, how much is the per kilowatt hour price for the energy produced? How does that compare to your current electricity rate? Do you have to put money down at the start?
- Does your lease or PPA include an escalation clause that increases the amount of payments over time? If so, by how much do payments increase?

Going solar is a major decision, so exercise the same caution you would when making other major consumer decisions. It is good to get quotes from at least three contractors and to check references. Also, make sure to read and understand the entire contract before signing it.

If you get solar panels, are you guaranteed to save money?

You are not guaranteed to save money unless your contract includes an explicit guarantee. The questions below will affect whether you save money.[2] You can answer some questions yourself, while others can be answered by your installer or sales agent.

- **What per kilowatt-hour rate are you currently paying for electricity?**
  The higher the electricity rate before you go solar, the more money you can potentially save.
- **Is your roof good for solar?**
  The direction your roof faces and how much shade it gets will affect how much electricity roof-mounted PV will generate. The roof's condition should also be considered.
- **How much electricity will the system generate?**
  If your system produces more electricity than you use over an annual period, you may not receive credit for all the electricity generated.
- **How much money will you receive for RECs?**
  The Approved Vendor will be paid by a utility for your system's RECs and may use some of that money to reduce your cost of going solar.
- **Can you use the federal Investment Tax Credit?**
  If you buy your system, you may qualify for a substantial federal income tax credit. Consult your tax adviser.
- **How long do you expect to stay in your home or business location?**
  If you lease or sign a PPA, you may be required to buy out the contract if you move. Read your contract to find out what happens if you move.

What is net metering and how do you enroll?

Net metering measures the electricity your PV system produces and credits you for it on your electric bill. If you buy electricity from your utility (e.g., basic service or hourly pricing), you must contact the utility to enroll in net metering. If you buy electricity from a Retail Electric Supplier (e.g., through municipal aggregation or an individual contract), you must contact the supplier to enroll in net metering. If you later change your electricity supplier, you will need to re-enroll in net metering with your new supplier. Failure to enroll or re-enroll may significantly impact the value you receive from your PV system.

Photo: Rivate Energy

Consumer rights

For your PV system to participate in Illinois Shines, an Approved Vendor will submit your PV system for application to the program. (The Approved Vendor will be identified on the Standard Disclosure Form you receive.) If the application is approved and after the system starts operating, the Approved Vendor will receive payments for the first 15 years of your system's RECs. **You have a right to request information** about your system's application status and how much a utility is paying for its RECs. Some of that information will be on the Standard Disclosure Form. The Approved Vendor must respond to issues related to ensuring that your PV system is generating electricity and producing RECs. Only companies that are Approved Vendors can submit your system to participate in the program.

IPA
ILLINOIS POWER AGENCY

Complaint procedures

If you have a problem related to your PV system or the sales process, **first try to resolve it with your Installer or the Approved Vendor**. If you can't agree about how to solve the problem, **you may contact the Illinois Shines/Adjustable Block Program Administrator** by emailing *admin@illinoisshines.com* or by calling 877-783-1820.

If you have been subject to fraudulent or deceptive sales practices, the Illinois Attorney General's Consumer Protection Division may be able to help. Customers can contact it at:

Chicago
800-386-5438 | TTY: 800-964-3013

Springfield
800-243-0618 | TTY: 877-844-5461

Carbondale
800-243-0607 | TTY: 877-675-9339

Spanish Language
866-310-8398

For more information, go to www.illinoisshines.com

1 This brochure is designed primarily for customers of Ameren Illinois Company, Commonwealth Edison Company, and MidAmerican Energy Company. For consumers in electric cooperative, municipal utility, or Mt. Carmel Public Utility territories, some policies—such as net metering—may vary. Contact those utilities for details.

2 Commercial and multi-family residential buildings may be eligible for a rebate for a smart inverter. See *https://illinoissolar.org/blog/617261*; also see *www.comed.com/SmartEnergy/InnovationTechnology/Pages/DGRebate.aspx* and *www.ameren.com/illinois/electric-choice/renewables/distributed-generation*.

JANUARY 2019

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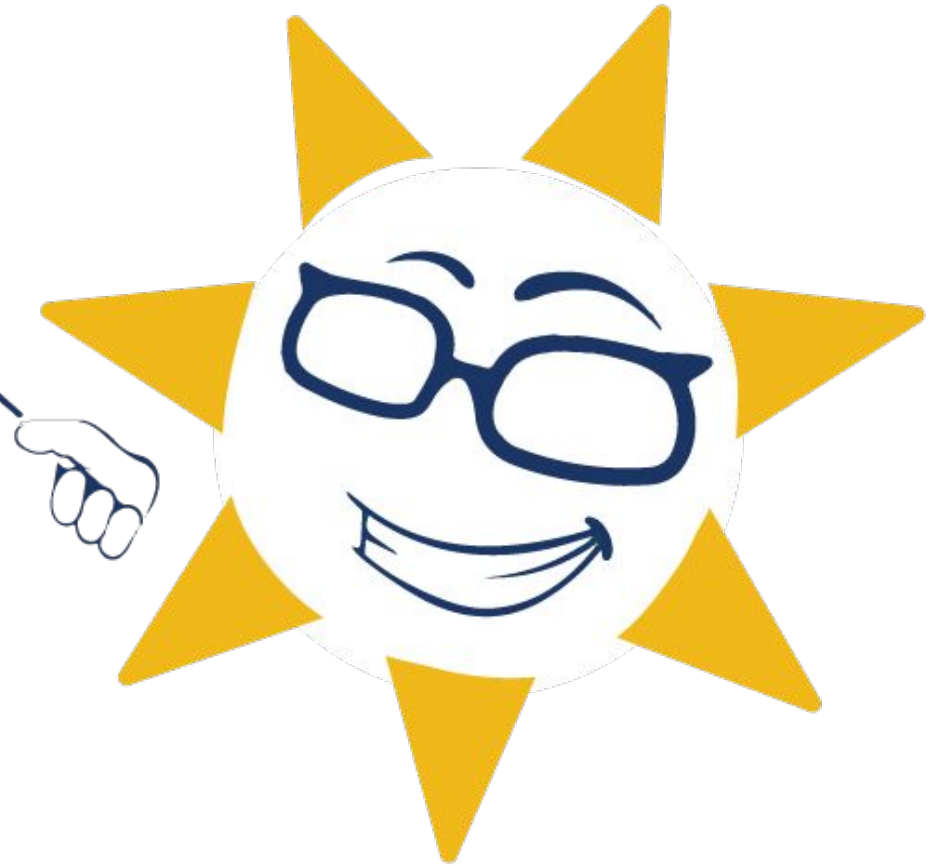
It's time for a poll!



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Cassie Carroll

MREA Presenter

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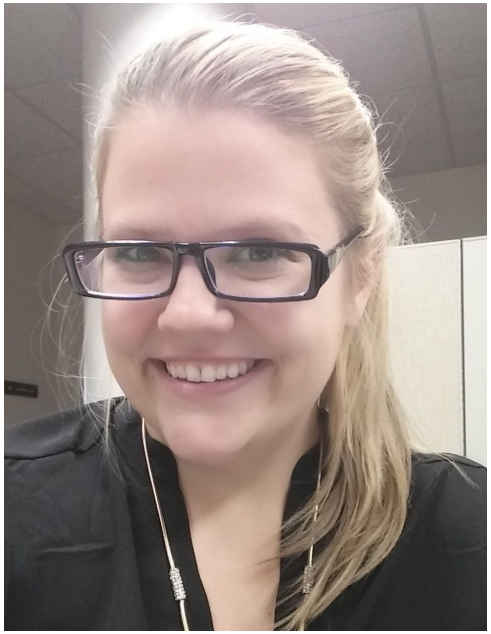
Why I love solar!

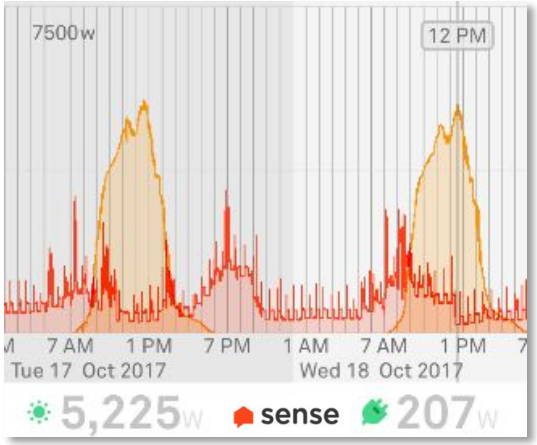


Andy Robinson

LEED AP, MREA Presenter

Two reasons why we went solar:

Home: 36 Panels
10.8 kW DC (7.5 kW AC)
offsets 80-90%



Church: 81 Panels
24 kW DC
Offsets 70% of my church (UUCUC)
First PPA in the area

Today's Agenda

- What is the Solar UC Group Buy Program?
- How does Solar Power work?
- Costs and cost-saving incentives
- How to begin your solar journey

We hope to simplify a complex topic

Rural Ground Mount

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StraightUp SOLAR

Why Solar Urbana-Champaign ?

To create sustainable communities by making solar simple & affordable.

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CITY OF URBANA

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prairieriversnetwork

Savoy ILLINOIS

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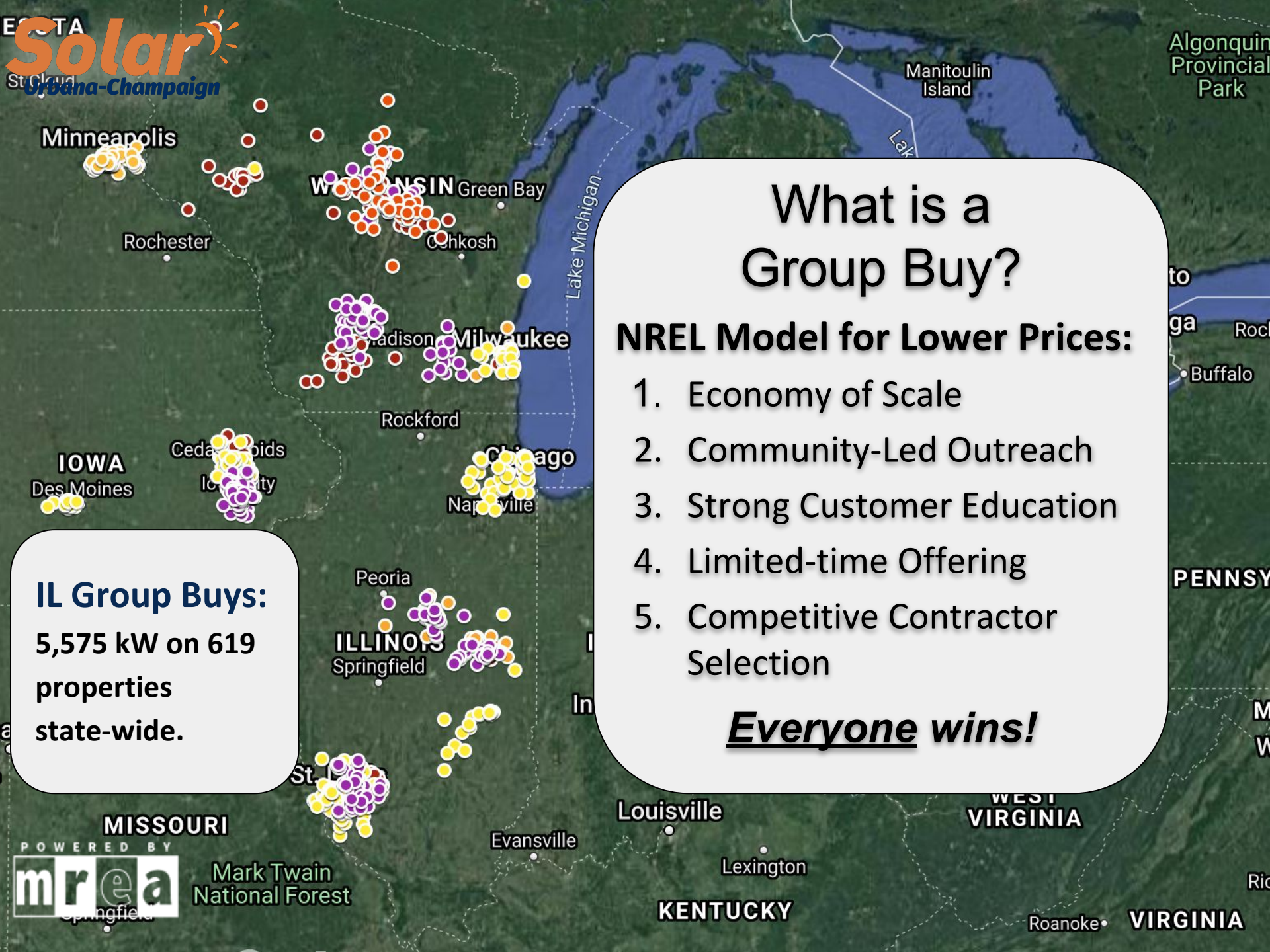

What is a Group Buy?

NREL Model for Lower Prices:

1. Economy of Scale
2. Community-Led Outreach
3. Strong Customer Education
4. Limited-time Offering
5. Competitive Contractor Selection

Everyone wins!

IL Group Buys:

5,575 kW on 619 properties state-wide.

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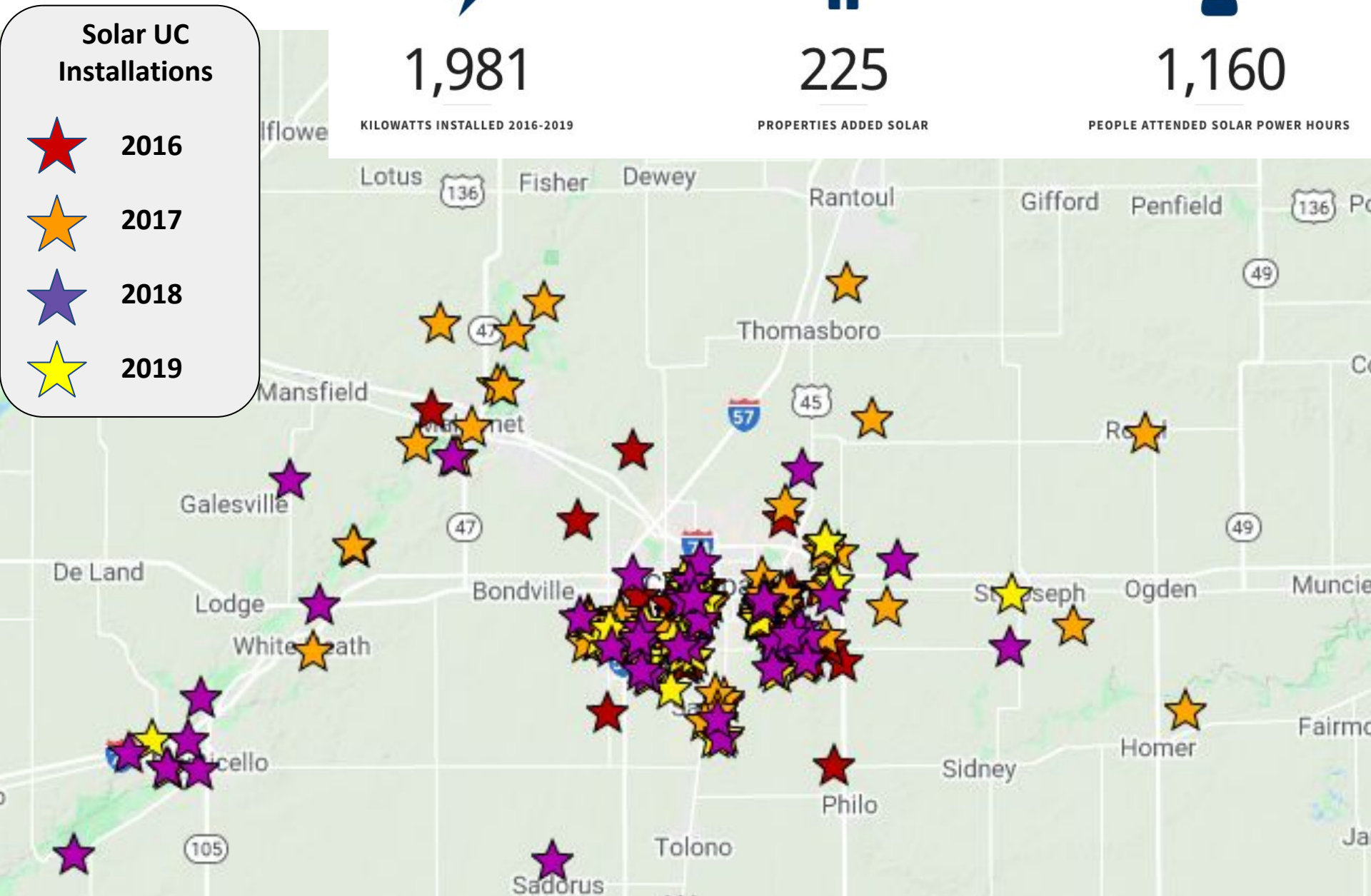
SOLAR URBANA-CHAMPAIGN IS A GROUP PURCHASING PROGRAM FOR RESIDENTIAL AND COMMERCIAL SOLAR.

1,981
KILOWATTS INSTALLED 2016-2019

225
PROPERTIES ADDED SOLAR

1,160
PEOPLE ATTENDED SOLAR POWER HOURS



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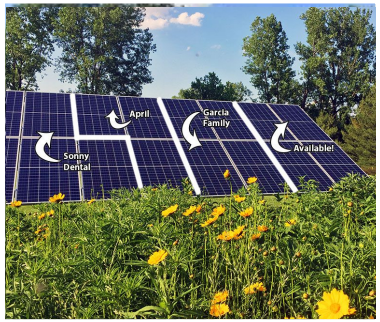
Many ways to go solar!

Homeowners

- Cash Purchase
- Financed
- Lease Agreement
- Subscribe to a Community Solar Array

Renters



- Subscribe to a <u>Community Solar Array</u>
- Guaranteed Bill Savings

Businesses

- Cash Purchase
- Financed
- Accelerated Depreciation
- Lease Agreement

Solar For All

- <u>Community Solar Array</u> for homeowners with 80% mean income
- Urbana Landfill Community Solar (300+ homes)
- Rooftop options for Nonprofits in income qualified areas

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Urbana Community Solar Farm

- 7,000 solar panels
- Located on the former site of a landfill near the junction of I-74 and Route 130

Trajectory Energy Partners

nexamp

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Solar Urbana Champaign Group Buy

- 15 Solar Power Hour webinars. **Deadline September 30.**
- Open to **Champaign County**, **Piatt County**, and new in 2020, **Vermillion County** residents, businesses, farms & nonprofits
- **All-in Pricing**. Program pricing includes turnkey design, permitting, components, installation
- **Additional rebates** as more arrays are installed in the program territory
- Residential financing & U.S.-made products available.
- Community solar options available.

StraightUp SOLAR

Certified B Corporation

Certified AMICUS Member

AMICUS O&M COOPERATIVE

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About StraightUp Solar

- Founded in 2006
- Serves IL and MO
- Won 12 MREA group buy programs
- 1400+ installations
- Part of Amicus Solar Cooperative
- Certified B Corporation
- 75+ Employees with over 30% with NABCEP Certification
- Tesla Powerwall and REC Premium Installer
- 10-year workmanship and production warranty

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How Does Solar Work?

Part 2 of 5

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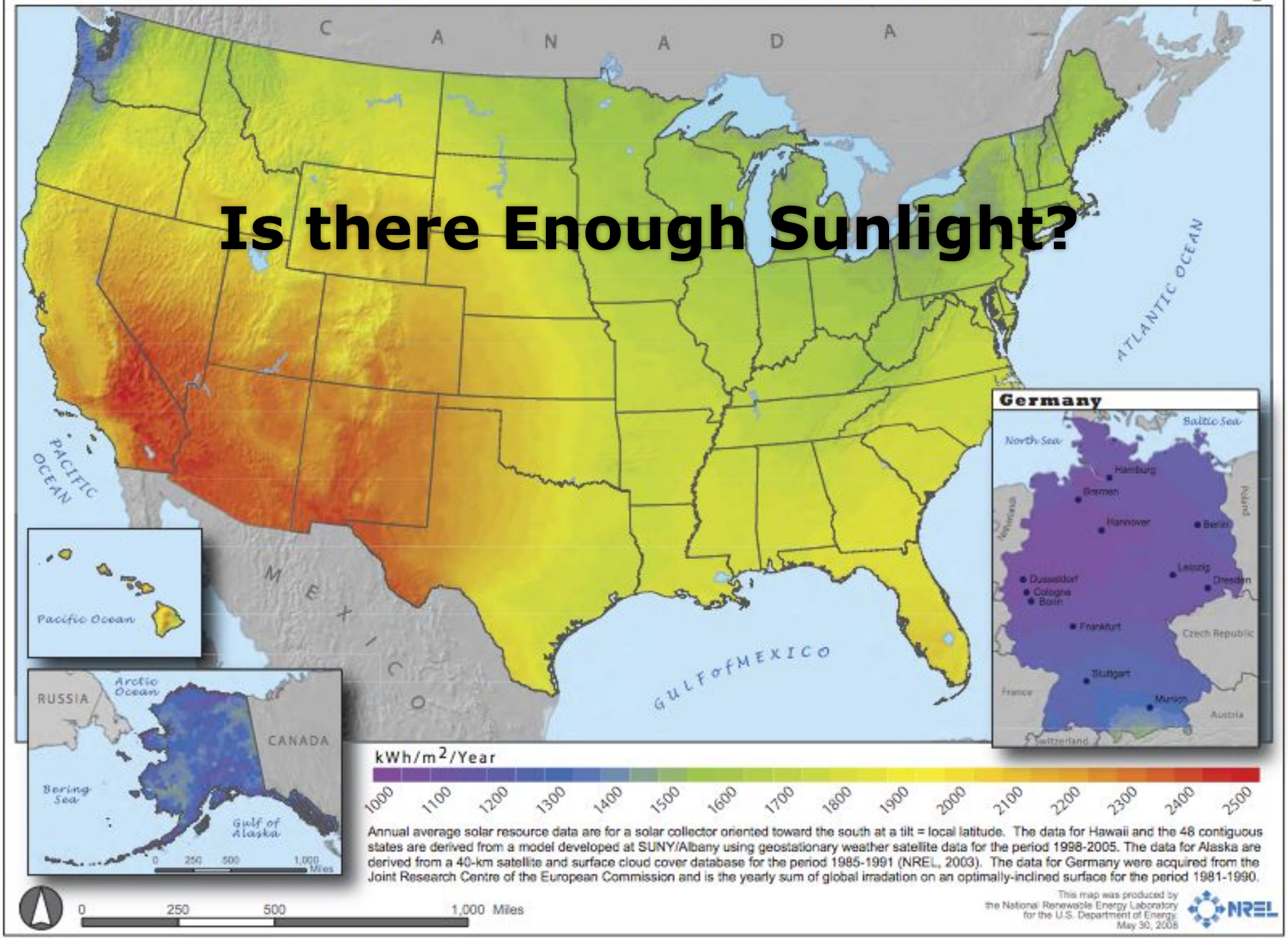
Photovoltaic Solar Resource : United States and Germany



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What's a Kilowatt (kW) and a Kilowatt Hour (kWh)?

KILOWATT HOUR (kWh)
a unit of energy used or produced. This is what shows up on your bill.

KILOWATT (kW)
a measurement of capacity: how big your array is.

Every home's system size and energy use is different.

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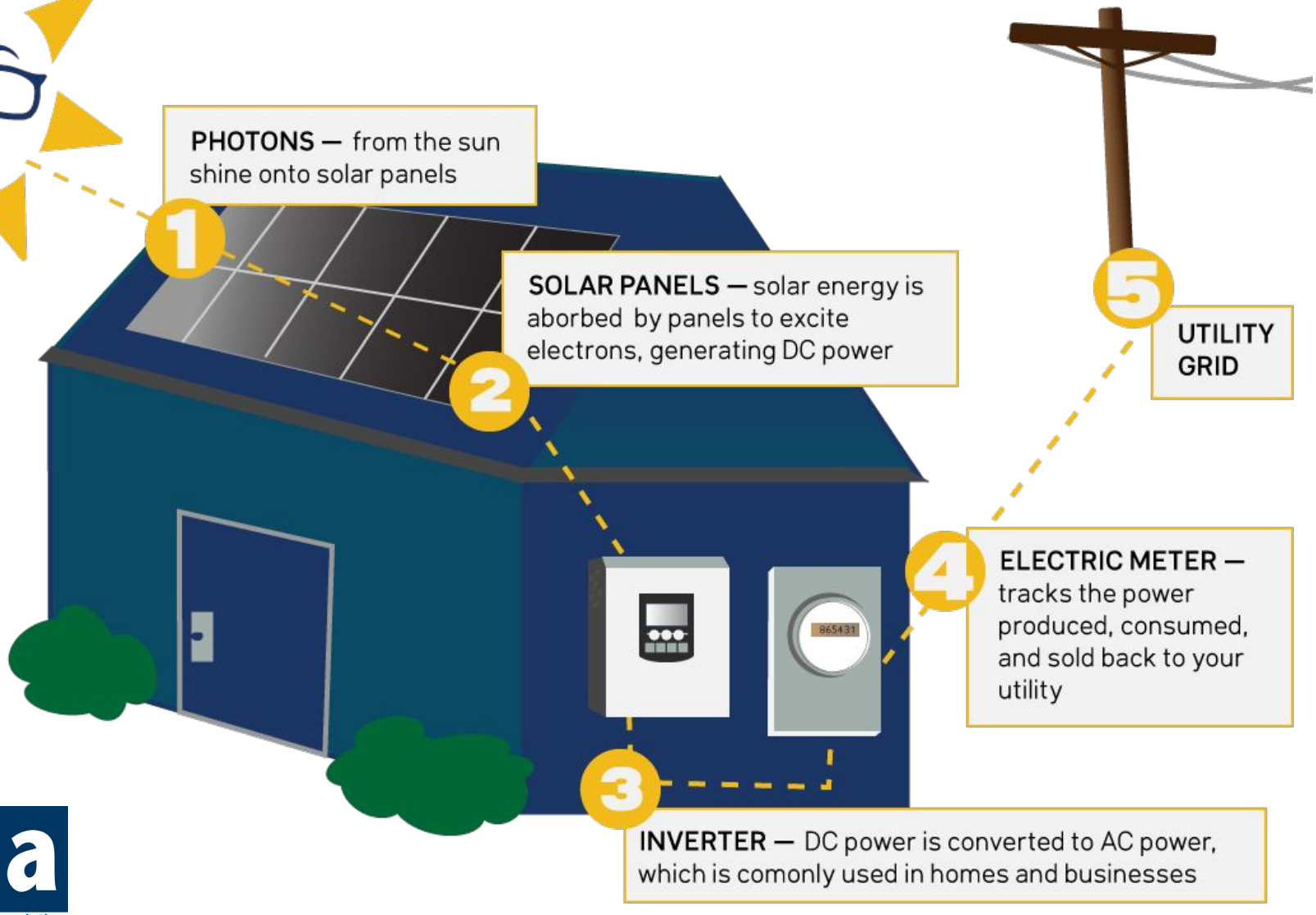
Configuration: How It Works…



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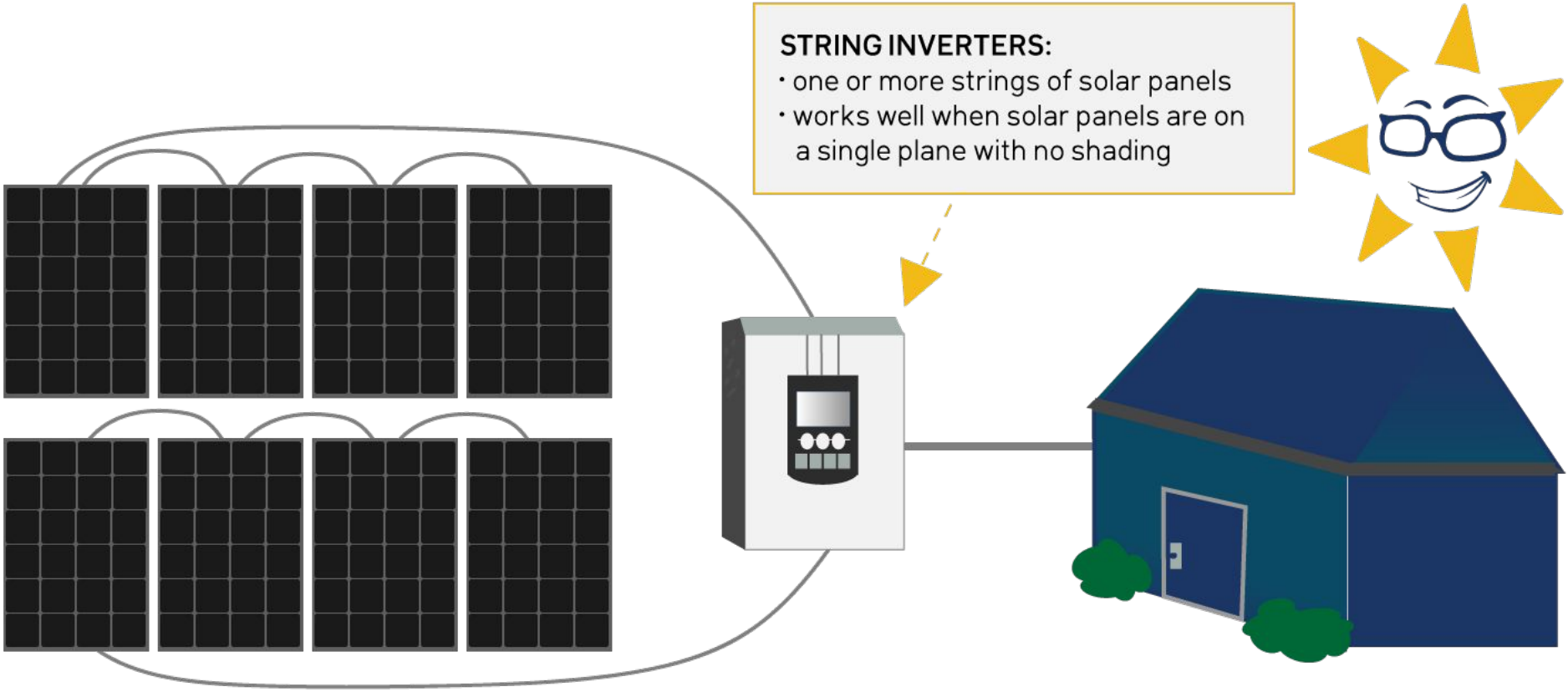
Inverter: The heart of the solar array



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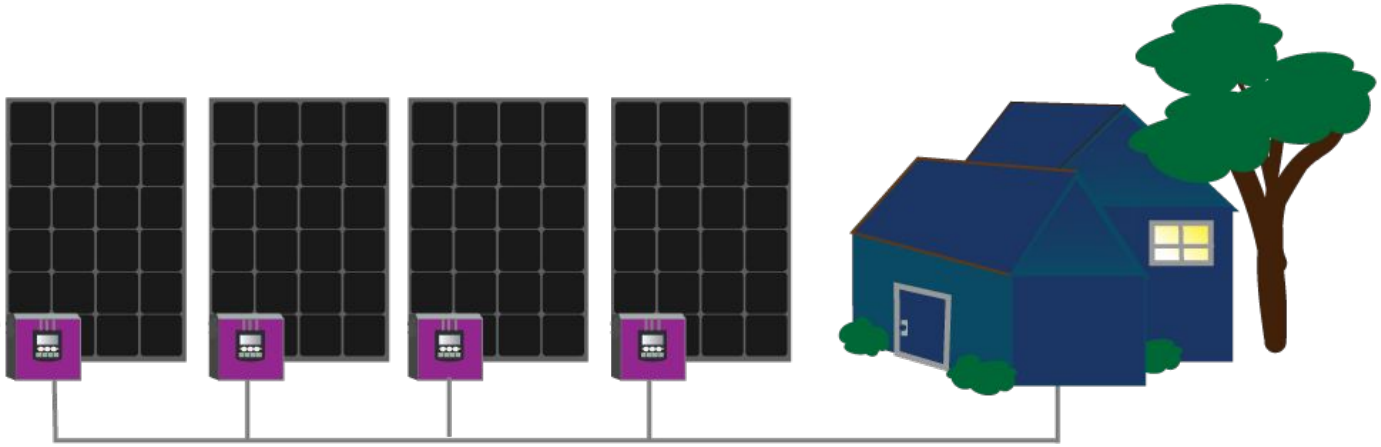
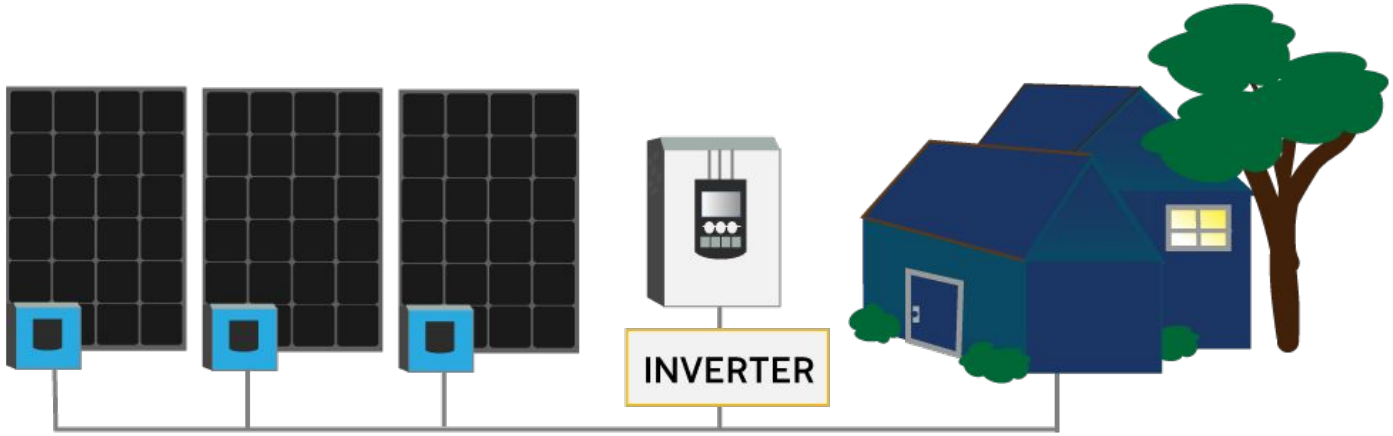
Inverter: The heart of the solar array

MICRO INVERTERS:
- one microinverter per panel
- function well on roofs with shade or multiple panel orientations



POWER OPTIMIZERS:
- one optimizer per panel,plus central string inverter
- function well on roofs with shade or multiple panel orientations



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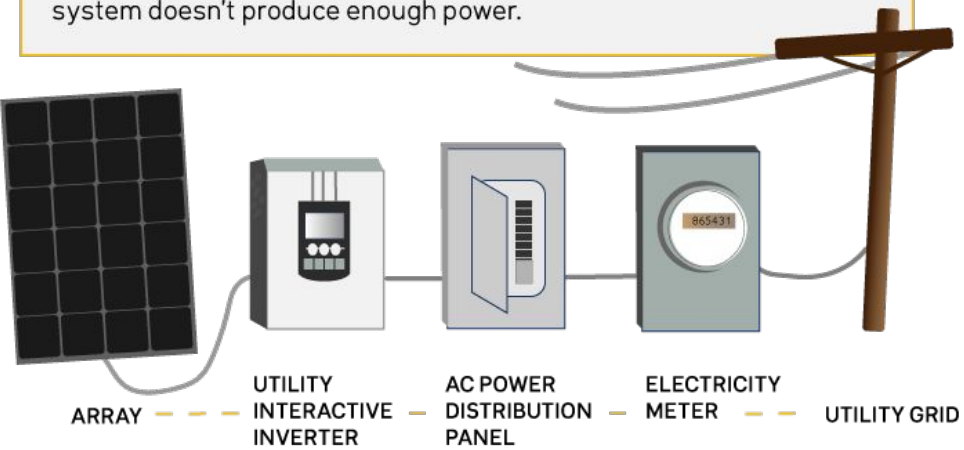
Grid-Tied VS. Off-Grid

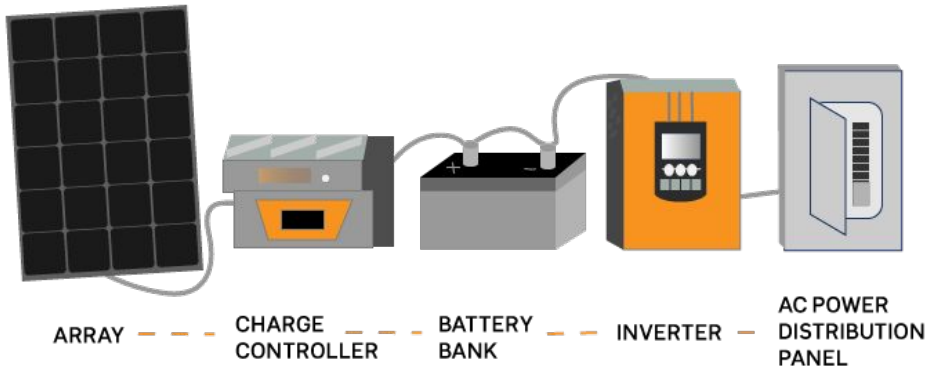
GRID-TIED DESIGN:
Excess electricity can be delivered to the utility grid, **AND** you can use electricity from the utility grid when your system doesn't produce enough power.

- Least Expensive Option
- Allows for Net Metering
- Grid Off = Solar Off

OFF-GRID DESIGN:
A stand-alone PV system that operates autonomously and supplies power to electrical loads indpendent of the utility grid.

- Requires Batteries & Charge Controller
- Not Connected to the Grid
- Grid Off = Solar On





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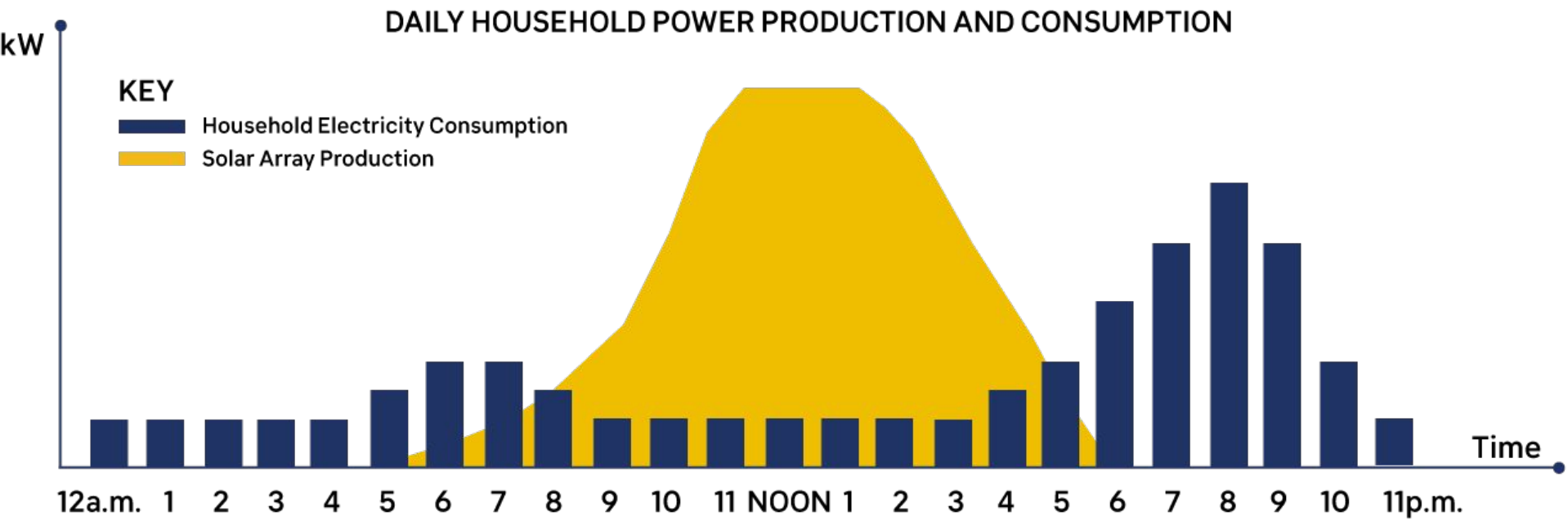
"A Day in the Life" of a Grid-Tied / Net Metered Home



— Net Metering is generally calculated on a monthly basis
— Net Metering policies vary based on utility

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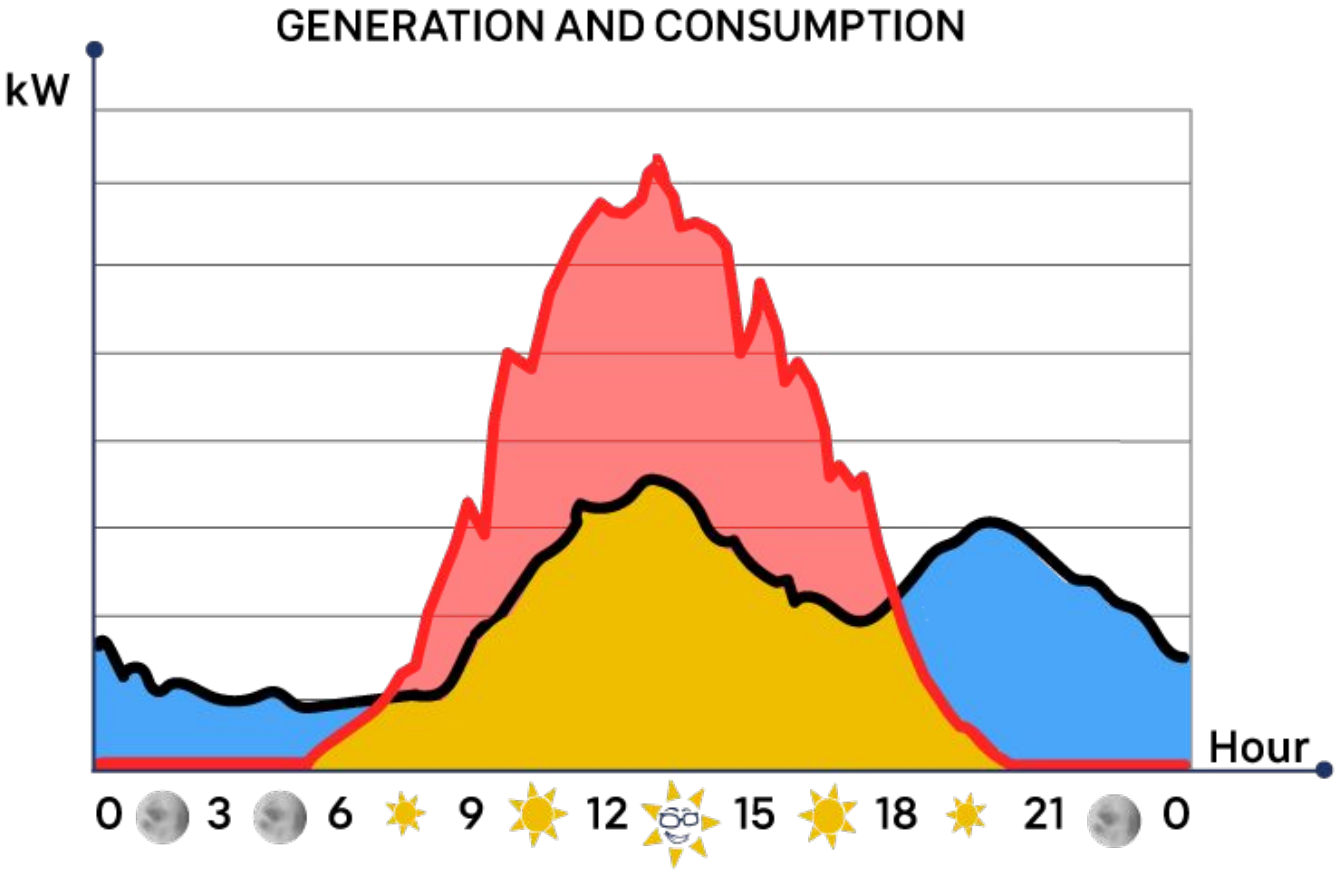
"A Day in the Life"
of a Grid-Tied / Net Metered Home



KEY

- Excess Energy
- Energy Consumed
- Energy Purchase from Utility Grid
- Electricity Consumption
- Solar Power Produced

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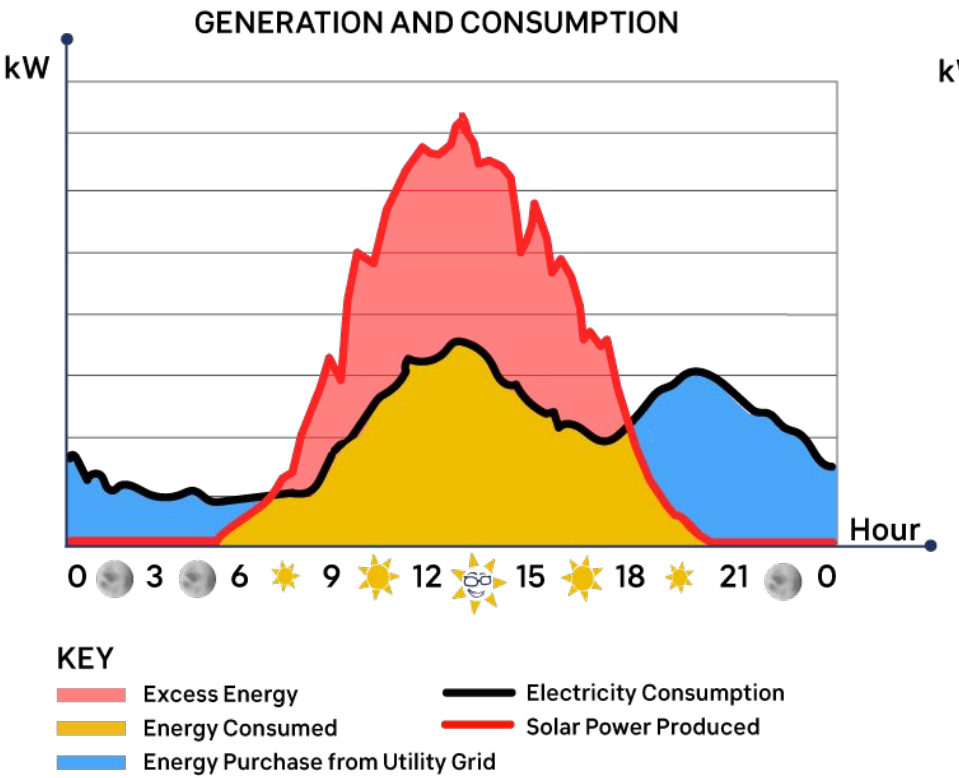
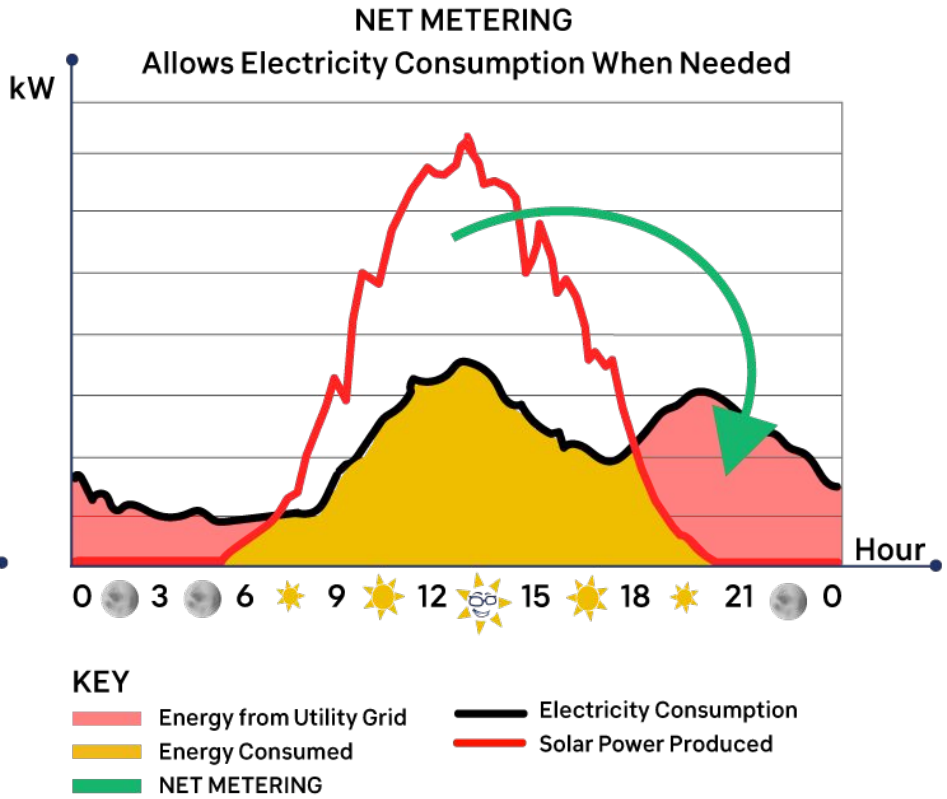
"A Day in the Life" of a Grid-Tied / Net Metered Home





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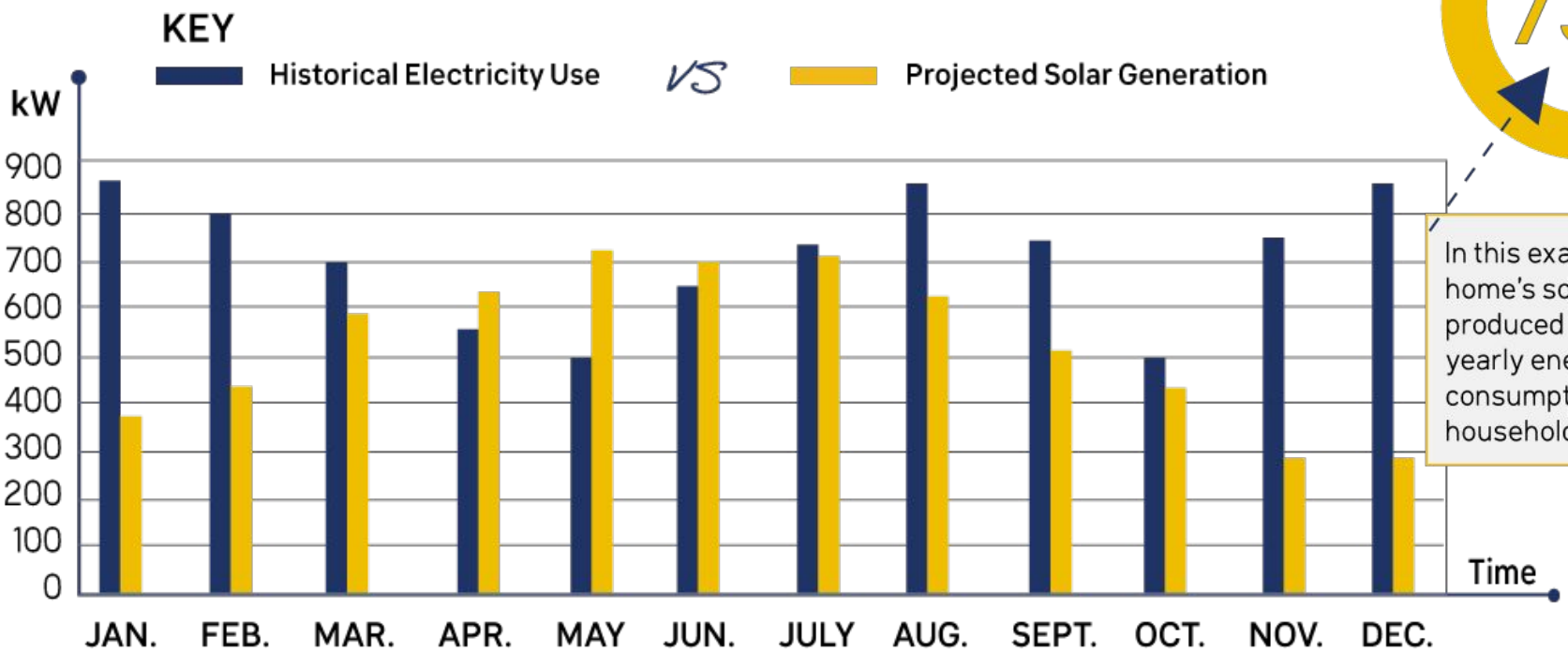
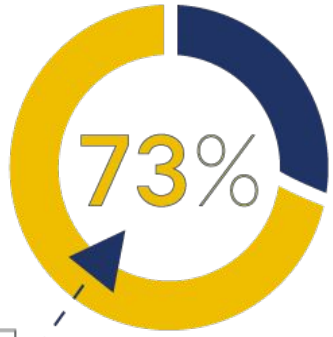
"A Year in the Life" of a **Grid-Tied / Net Metered Home**





In this example, this home's solar array produced **73%** of the yearly energy consumption of the household.

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Ameren ILLINOIS

AmerenIllinois.com
Customer Service 1.800.755.5000

Statement Issued	05/22/2019
Amount Due	$
Due Date	Jun 12, 2019

Account Number
Customer Name

Service Address

Payment Details

	DATE	AMOUNT
Payment Received	April 26, 2019	

Electric Service Residential Billing Detail - Rate Zone III

04/10/2019 - 05/15/2019 (35 days)

Electric Meter Read for 04/10/2019 - 05/15/2019 (35 days)

READ TYPE	METER NUMBER	CURRENT METER READ	PREVIOUS	AD DIFFERENCE	MULTIPLIER	USAGE
Total kWh	72260189	389.0000 Actual		389.0000	1.0000	389.0000
Peak kW	72260189	6.1940 Actual	0.0000 Actual	6.1940	1.0000	6.1940
kWh Out	72260189	902.0000 Actual	0.0000 Actual	902.0000	1.0000	902.0000

Energy Used From The Grid

Usage Summary

Total kWh	389.0000	Non-Summer kWh	389.0000
On-Site Excess Gen kWh	-902.0000	Delivery Net Total kWh	-513.0000
Del Prior Carryovr Gen	0.0000	Delivery Net Billable kWh	0.0000
Delivery Carryovr Gen kWh	-513.0000	Supply Net Total kWh	-513.0000
Supply Prior Carryovr Gen	0.0000	Supply Net Billable kWh	0.0000
Supply Carryover Gen kWh	-513.0000		

Energy Sent To The Grid

Net Metering Value

Smart Meter

Net Metering-Method A/C-Non-TOU

	CHARGE DESCRIPTION	USAGE	UNIT	RATE	CHARGE
Electric Delivery	Customer Charge				$8.20
Ameren Illinois	Meter Charge				$5.74
DS-1 Residential Delivery Service					

Total Charges = $13.94

04916 6126084 010449 020897 0002/0002

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Options & Considerations

Part 3 of 5

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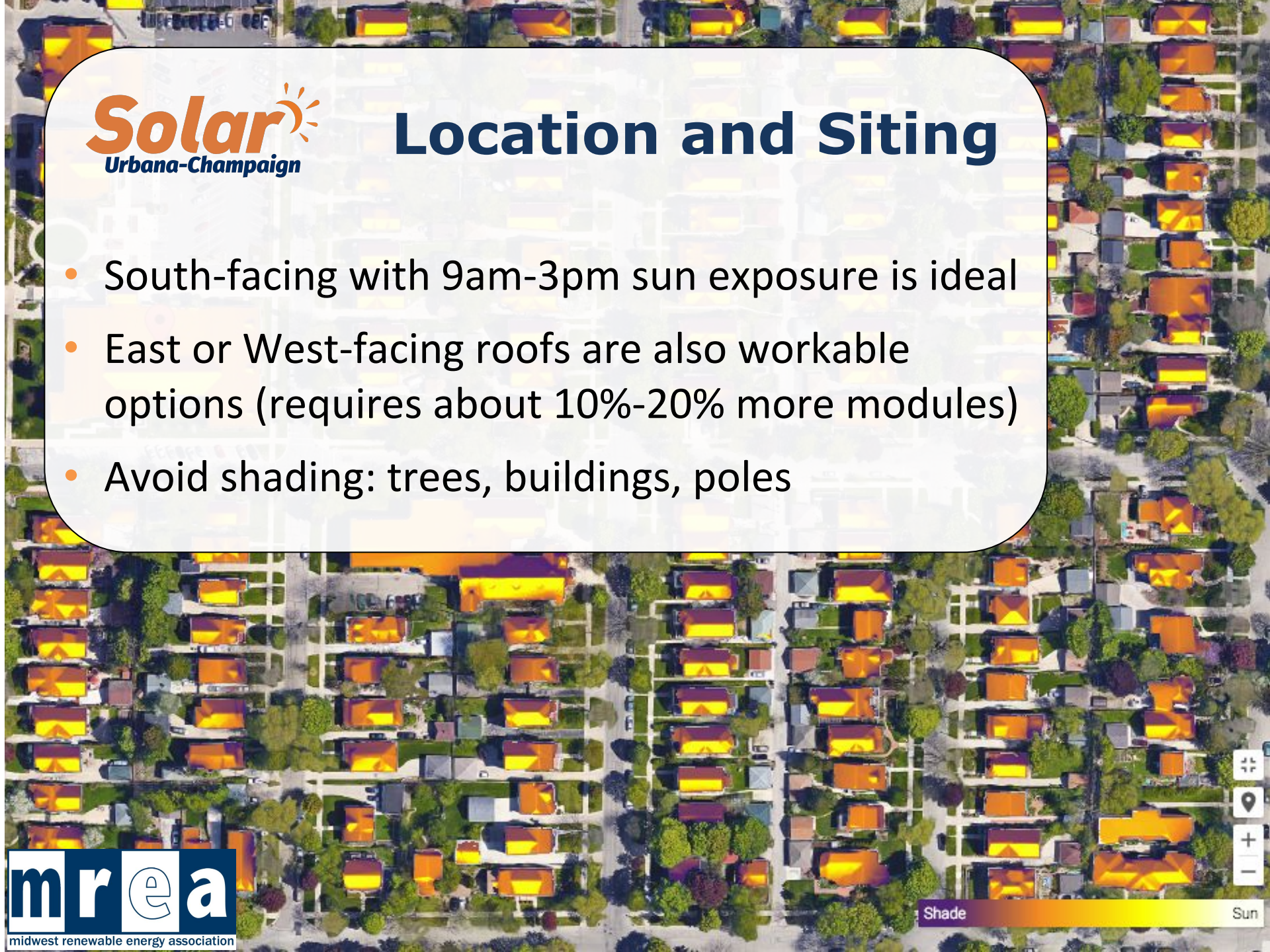
Location and Siting

- South-facing with 9am-3pm sun exposure is ideal
- East or West-facing roofs are also workable options (requires about 10%-20% more modules)
- Avoid shading: trees, buildings, poles



Mounting: Roof Mounted Solar

- Roof is most common
- Need good solar window
  - South is ideal, but E/W only reduce ~20%
  - Trees can partially shade
- Homeowner's insurance may cover solar at minimal additional expense.
- Considerations
  - Snow / Hail
  - Wind Loading
  - Roof Condition (age of shingles)
  - Squirrels (Critter Guard)

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Mounting: Ground Mount

- Good for larger arrays and for properties where house roof is shaded
- Require large un-shaded area
- Take advantage of best solar window
- Anchor to ground mounts
- Easy to remove snow, dust

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Champaign Garden 15kW 2018

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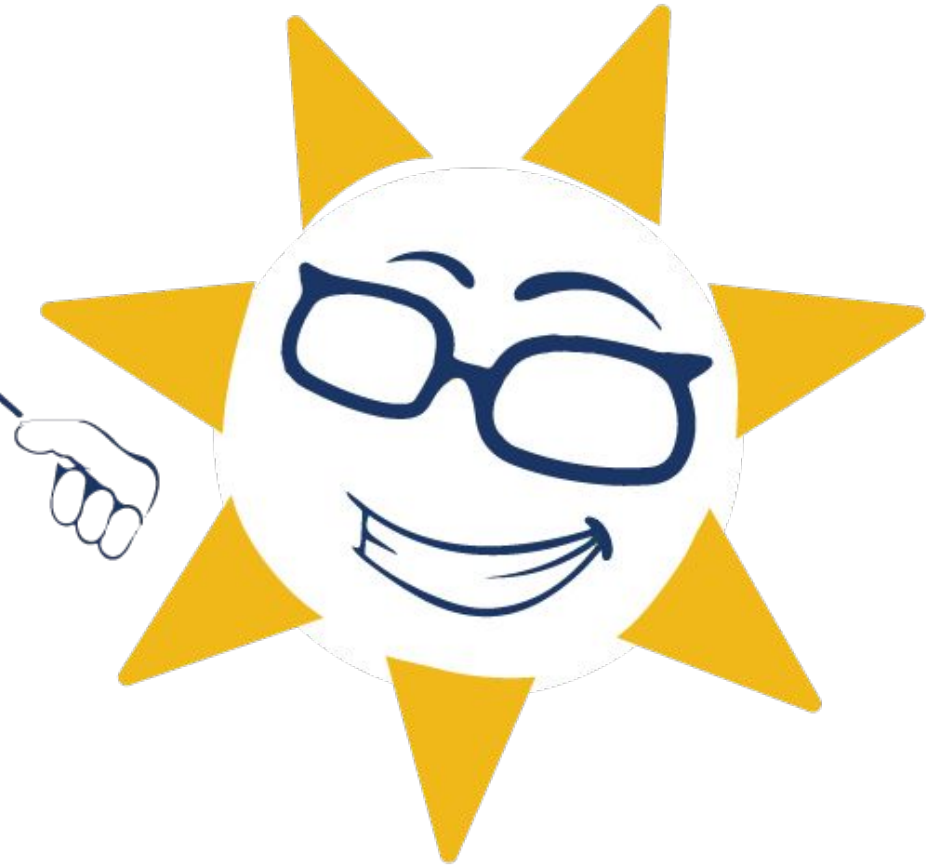
It's time for a poll!



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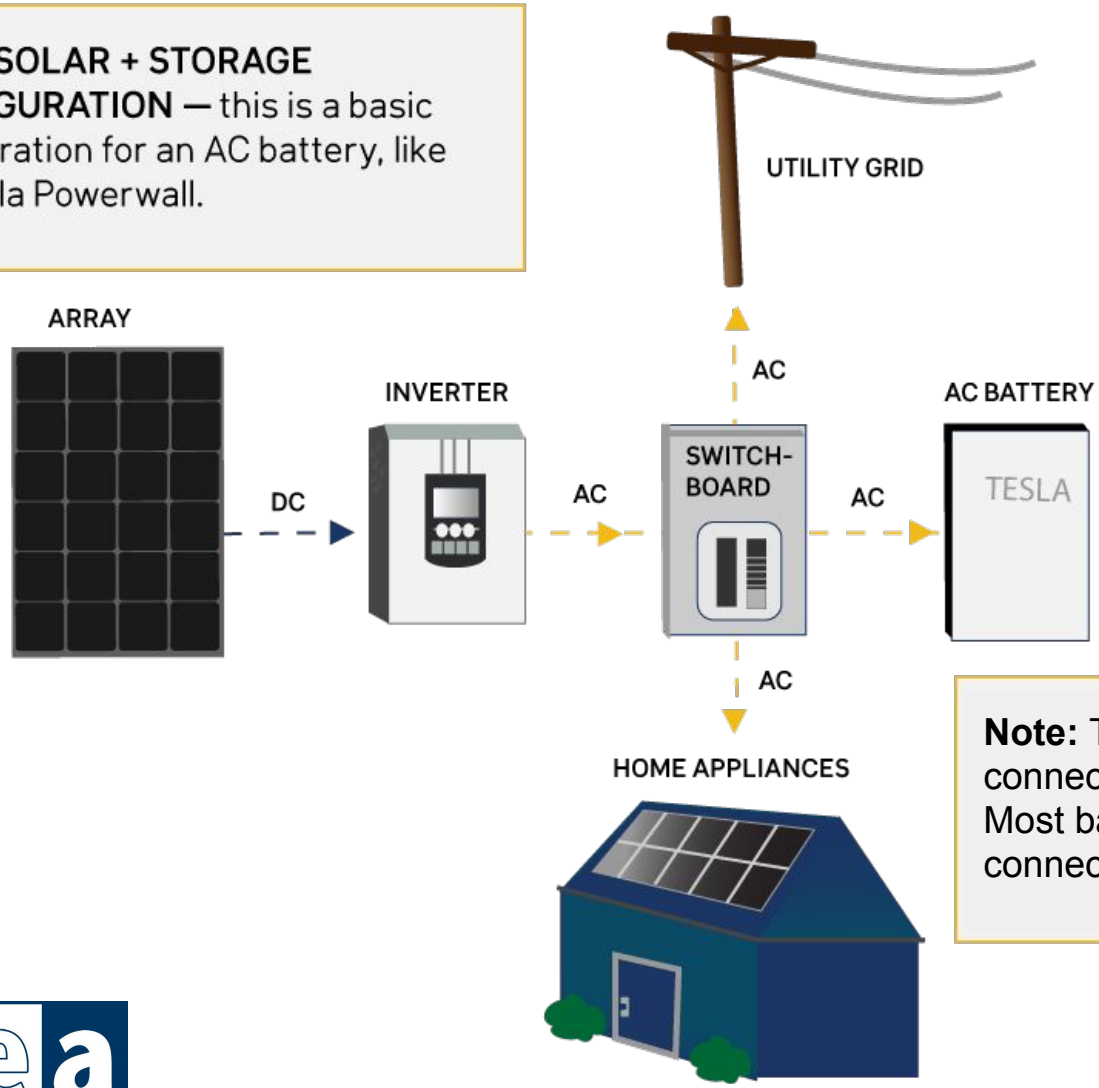
Solar + Storage

BASIC SOLAR + STORAGE CONFIGURATION — this is a basic configuration for an AC battery, like the Tesla Powerwall.



Note: Tesla batteries have an AC connection.
Most batteries would have a DC connection.

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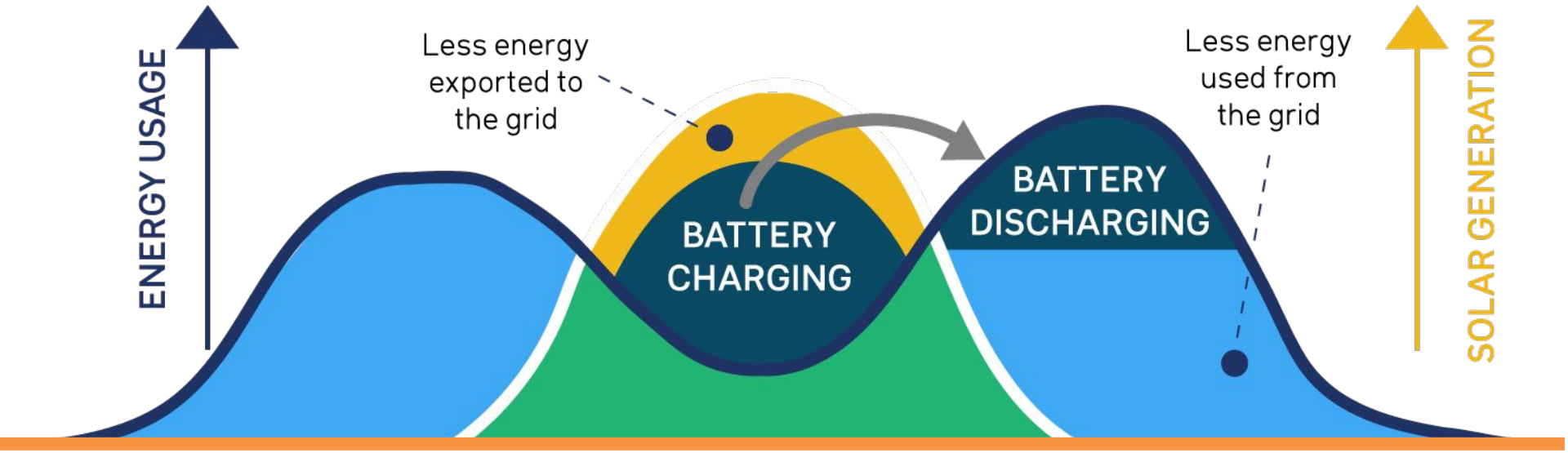
Solar + Storage



FINANCIAL CASES FOR BATTERIES:

- **TIME OF USE (TOU)—** If your utility charges you different rates depending on the time of day that electricity is being used.
- **NET METERING —** If the excess generation from your solar array is credited at avoided cost rates (i.e. wholesale electricity prices).
- **DEMAND CHARGES —** Sometimes utilities have demand charges, meaning your electricity rate varies based on your peak demand, which is the period of time during the billing cycle that you use the greatest amount of electricity (usually calculated in 15 minute increments).

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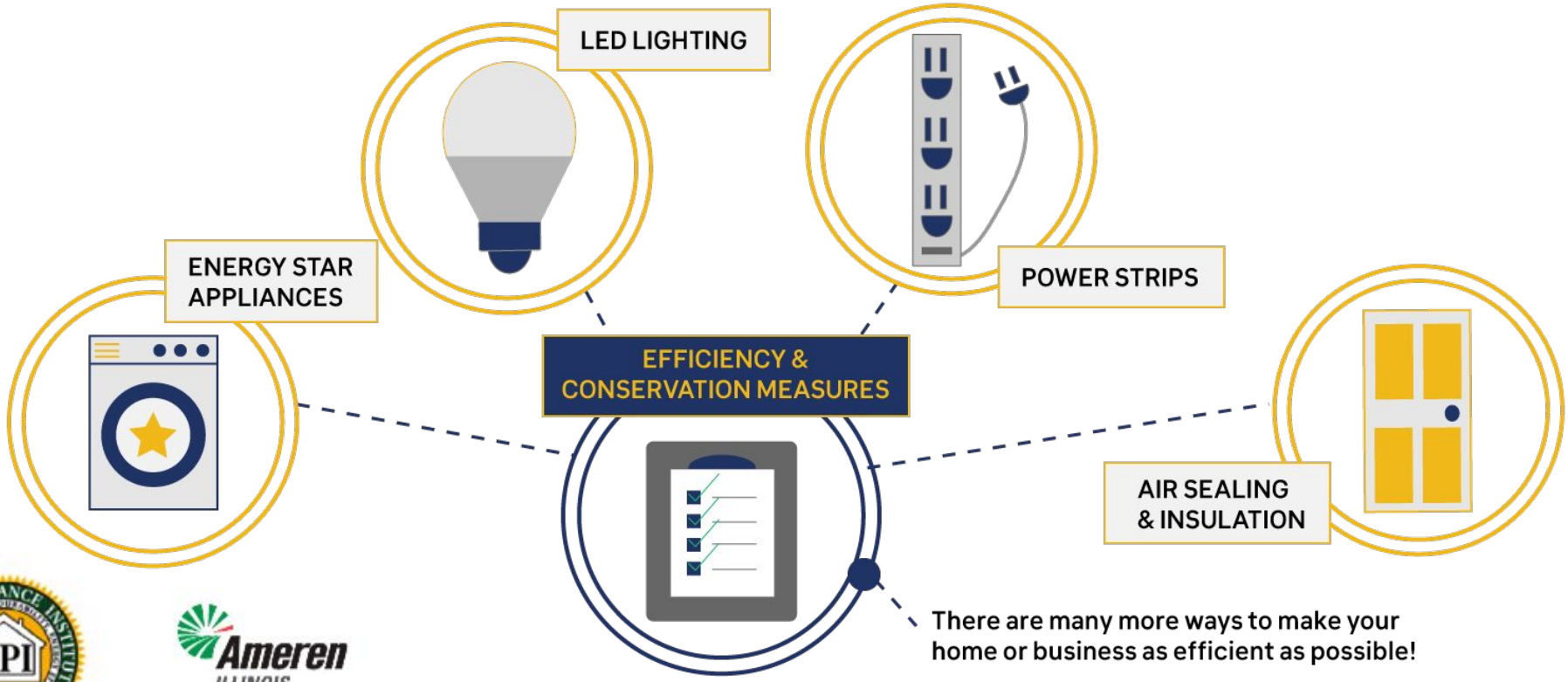
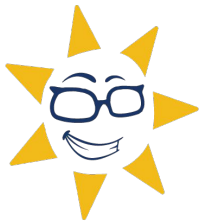
Energy Efficiency



BPI CERTIFIED PROFESSIONAL

Ameren ILLINOIS

ActOnEnergy Registered Program Ally



- **Each contracted participant may receive a free home energy audit (up to $300 value) from a BPI-Certified firm of their choice**
- Ameren's efficiency incentive program can be found at AmerenIllinoisSavings.com

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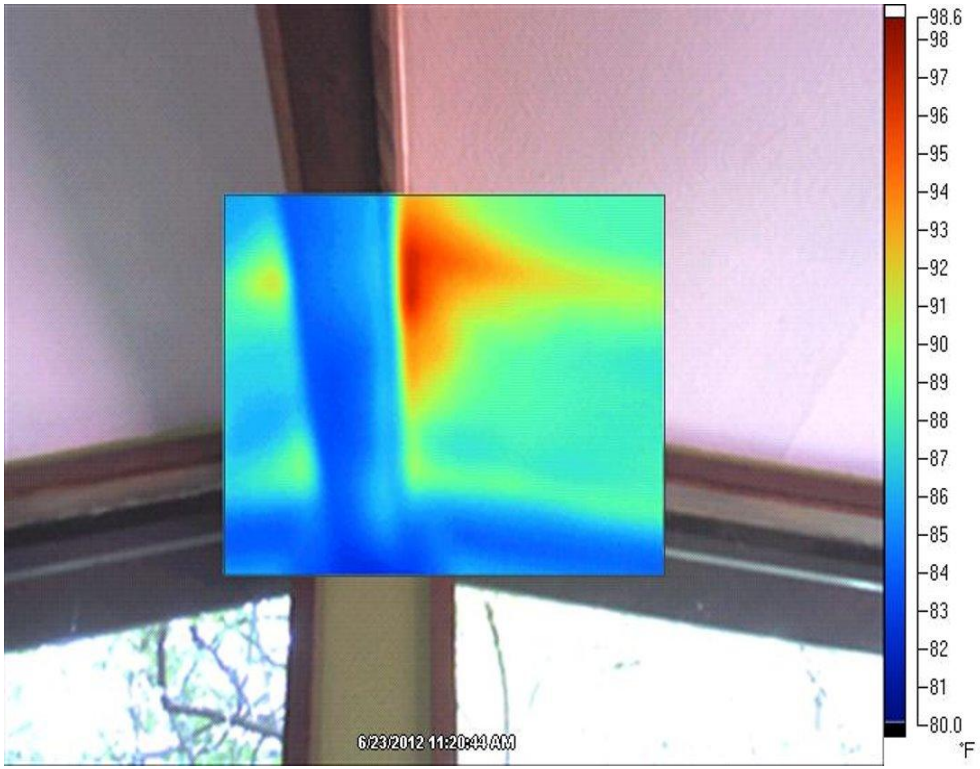
Energy Efficiency

- Ameren's efficiency incentive program can be found at AmerenIllinoisSavings.com

- StraightUp Solar will reimburse customers $300 for completing an energy audit prior to installation.*



This thermal image, taken during an energy audit, shows a roof with an energy leak.

* *Energy efficiency auditor must be certified by Home Performance with ENERGY STAR.*

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IS MY PROPERTY PHYSICALLY WELL SUITED FOR SOLAR?

- ❑ Do I have a south, east, or west-facing roof?
- ❑ Do I have ground space?
- ❑ Are there shade issues?
- ❑ When do I anticipate re-roofing?
- ❑ Is my roof structurally sound?
- ❑ Is my property energy efficient?

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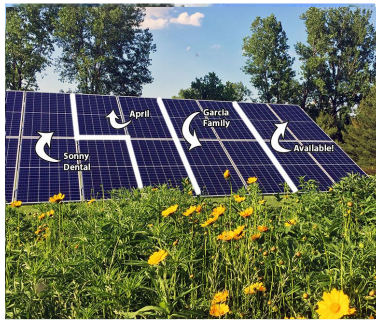
Many ways to go Solar!

Homeowners

- Cash Purchase
- Financed
- Lease Agreement
- Subscribe to a Community Solar Array

Renters



- Subscribe to a Community Solar Array
- Guaranteed Bill Savings

Businesses

- Cash Purchase
- Financed
- Accelerated Depreciation
- Lease Agreement

Solar For All

- Homeowners with 80% mean income
- Nonprofits in low-income areas

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Community Solar

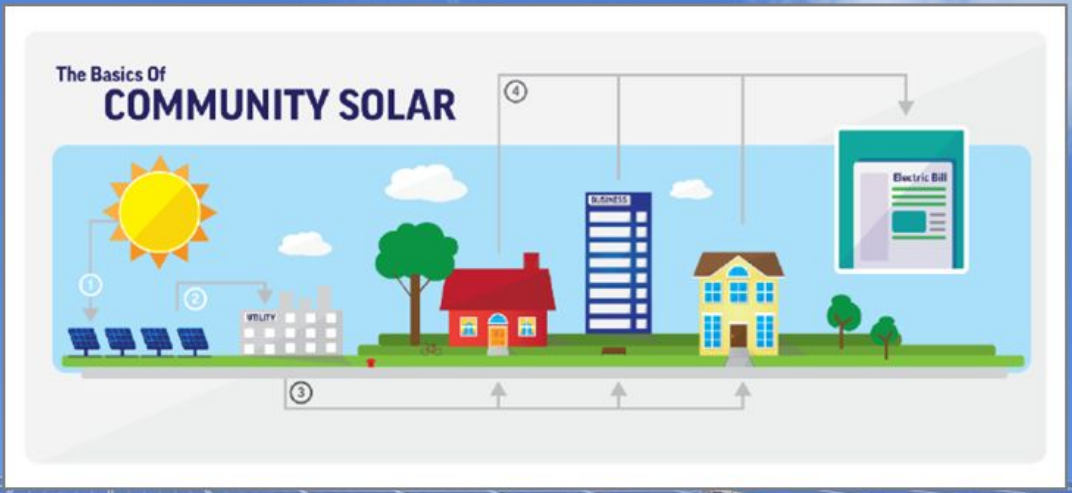
Trajectory Energy Partners is working to subscribe residents to community solar projects in the ComEd and Ameren service territories. Now in Illinois, you can reduce your electric bill with local renewable power by subscribing to a community solar project.

1. A community solar project is built and connected to the grid in the same utility service territory as its customers.

2. The solar energy produced goes to the local power grid.

3. Individual subscribers offset their own electricity use with a portion of the electricity generated by the community solar system.

4. A subscription allows you to receive credit on your electric bill for the energy produced by that project, and you pay for those credits at discounted rate with no upfront investment.



If you're interested in becoming a community solar subscriber, visit *trajectoryenergy.com/subscribe-sus*

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Solar Costs & Incentives

Part 4 of 5

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Group Buy

How It Works

The more people go solar, the lower the price:

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

<u>Volume Rebates</u>

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Group Buy

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How It Works

The more people go solar, the lower the price:

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

Volume Rebates

Total kW	>50 kW	>150 kW	>250 KW	>350
Rebate	1%	2%	3%	3.5%
# of Homes	7-10 homes	21-30 homes	35-50 homes	50-70 homes

Additional discounts come in the form of a rebate check from the installer at the end of the program

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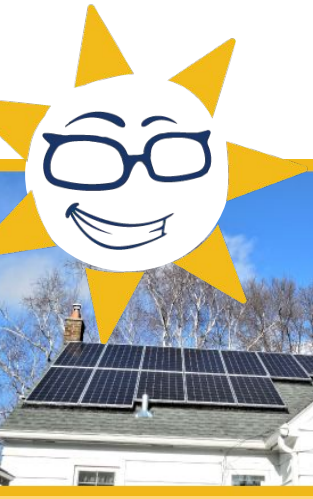
Every Home Is Different

Your PV System Is Tailor-Made To Fit Your Needs



Pricing Varies by Site and Needs:

- System Design and Size
- Age and Type of Roof
- Panel Type
- Inverter Type
- Slope and Height of Roof
- Complexity of Electrical Interconnection
- Multiple PV Arrays
- Energy Storage

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Pricing Structure

Group Buy Base Rate

Less than market rate

Includes baseline package of modules, inverter, and racking

Adders customized to home and energy needs

Add ~20% to base rate

- Module efficiency
- Microinverters
- Multiple arrays
- Electrical service
- Battery storage
- Car charging station

Final Price

Group Buy Rebate (up to 3.5%)

Distributed after all projects installed

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Solar System Price Spectrum

$10,000
One Array <4kW

$20,000
Ground Mount Array, 5-6kW

$30,000
Two Arrays,
One Roof, 7-9kW

$40,000
Two Arrays, Two Roofs, 10+kW

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Typical Home Installation

6.2 KILOWATTS (kW DC)

Average American Home uses 10,000 kWh/Year (~$900)

20 x 325 Watt Panels = ~ 75% of Annual Energy Use

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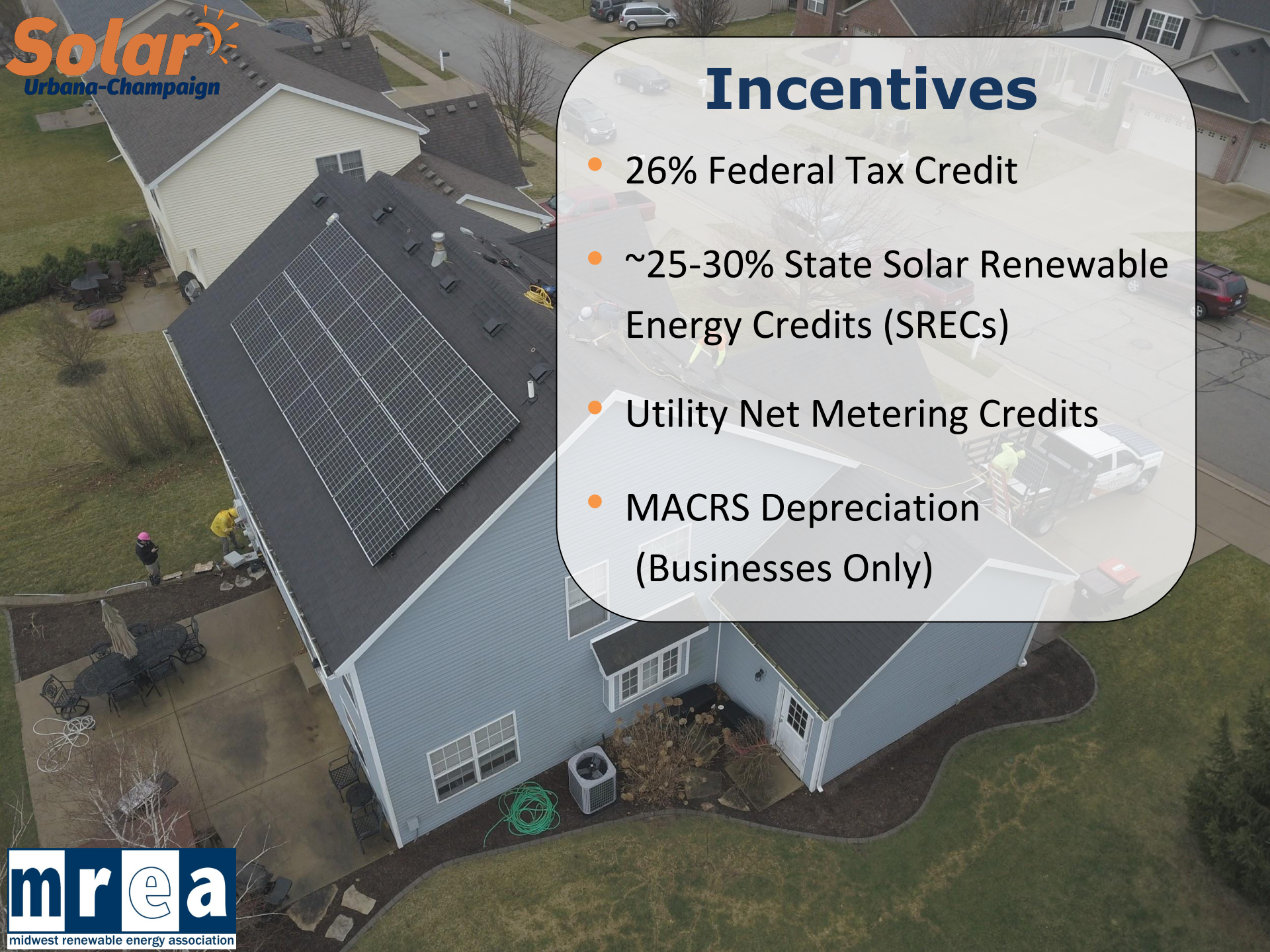

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Incentives

- 26% Federal Tax Credit
- ~25-30% State Solar Renewable Energy Credits (SRECs)
- Utility Net Metering Credits
- MACRS Depreciation (Businesses Only)

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GROW SOLAR
METRO EAST

Residential & Commercial Renewable Energy Tax Credit (Federal)

- **Tax credit of 26%** on qualified expenditures
  - 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 22% in 2021 and 0% in 2022
- A home must be owned by the taxpayer but does not have to serve as the principal residence
- Incentive details at energystar.gov or irs.gov

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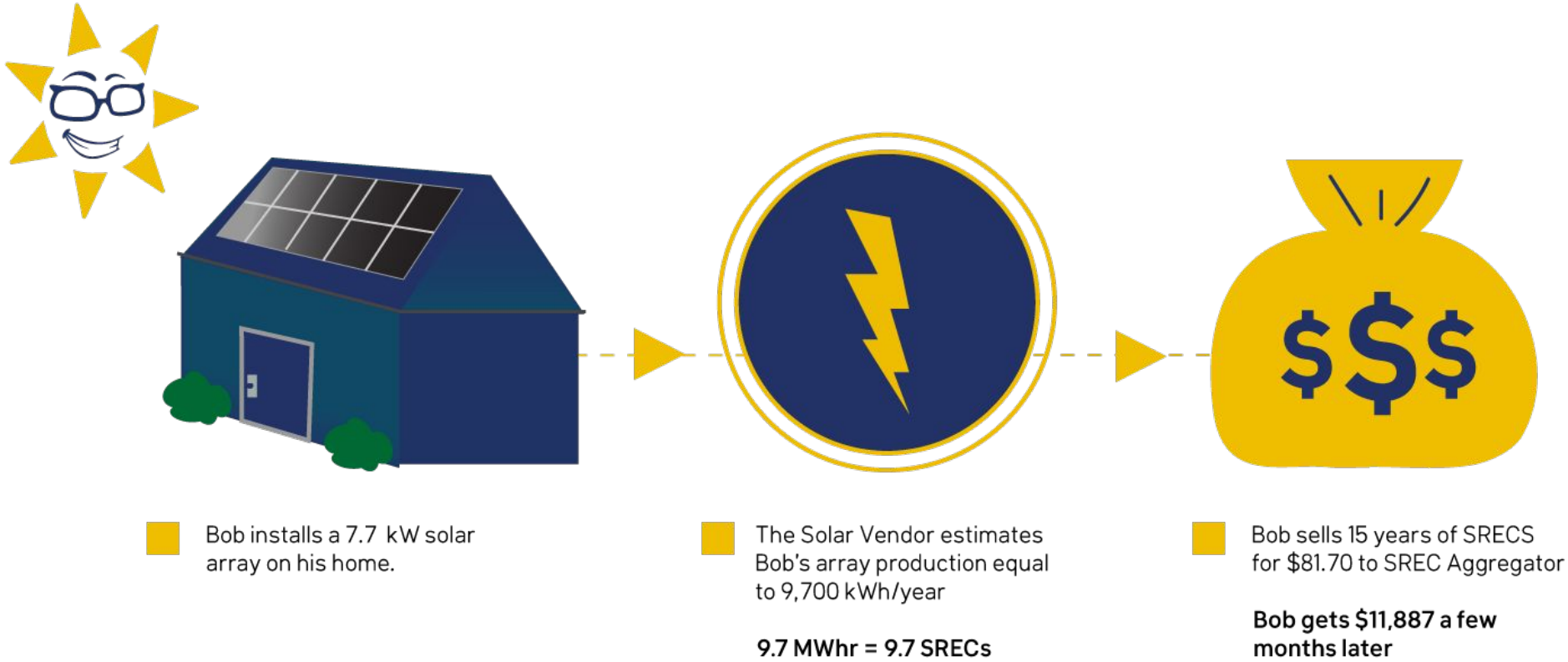
GROW SOLAR
METRO EAST

Illinois Law & SRECs

- Goal: 25% renewable energy on the IL grid by 2025
  - We have about 9% RE now; 1% is solar.
- Expansion through Solar Renewable Energy Credits (SRECs).
- SRECs funding comes from major utility companies through a small fee on customers **(NOT A TAX!)**
- SRECs give you cash payments based on projections of future energy production for your solar project.

Solar Renewable Energy Credits
SRECS = "Green Value"



- * For <10 kW AC systems in Illinois.
  - Does not Illustrate administrative fees.
- SREC income is taxable
- SREC Aggregator: Carbon Solutions Group--NOT the solar vendor
- ~5% security withhold until Year 15

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Reduce Your Energy Bill

- Buying solar is like pre-purchasing your energy for the lifetime of your solar system.
- This is the levelized cost of energy **(LCOE)**

25-year cost pre-solar: 10.5 cents/kWh + 2% average annual

25-year cost post-solar: 4 cents/kWh, no annual increase

Go solar this year and take control of your energy future!

Put another way, all of the orange bars are *the cost of not going solar.* *7kW saves over $23,000 over 25 years.*

Home Values

Zillow has released a report stating that homes with solar panels sell for 4.1% more than their generation-naked counterparts.

Zillow Economic Research

A study by the National Renewable Energy Laboratory found that homes with solar sold faster and for more than equivalent non-solar homes.

NREL (National Renewable Energy Laboratory)

In a study across six states, Berkeley National Lab found that home buyers will pay a premium for solar homes.

Lawrence Berkeley National Laboratory

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Environmental Benefits

IT IS ABOUT MORE THAN SAVINGS!

An Average Solar System has an Incredible Impact

Numbers Reflect a 7.7 kW system.

Equivalent to Planting 50 Trees

Taking 1.7 Cars Off the Road Each Year

Keeping 3 Tons of Waste Out of Landfills

Clean Air Due to No Emissions

Local Sustainable Jobs for Missouri and Illinois

Less Rail Cars Filled with Coal

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IL Homeowner's Solar Rights Act

Section 1. Short title. This Act may be cited as the Homeowners' Solar Rights Act.

Section 5. Legislative intent. The legislative intent in enacting this Act is to protect the public health, safety, and welfare by encouraging the development and use of solar energy systems in order to conserve and protect the value of land, buildings, and resources by preventing the adoption of measures which will have the ultimate effect, however unintended, of preventing the use of solar energy systems on any home that is subject to a homeowners' association, common interest community association, or condominium unit owners' association.

Section 10. Definitions. In this Act:
"Solar energy" means radiant energy received from the sun at wave lengths suitable for heat transfer, photosynthetic use, or photovoltaic use.
"Solar collector" means:
(1) an assembly, structure, or design, including passive elements, used for gathering, concentrating, or absorbing direct and indirect solar energy, specially designed for holding a substantial amount of useful thermal energy and to transfer that energy to a gas, solid, or liquid or to use that energy directly; or
(2) a mechanism that absorbs solar energy and converts it into electricity; or
(3) a mechanism or process used for gathering solar energy through wind or thermal gradients; or
(4) a component used to transfer thermal energy to a gas, solid, or liquid, or to convert it into electricity.
"Solar storage mechanism" means equipment or elements (such as piping and transfer mechanisms, containers, heat exchangers, or controls thereof, and gases, solids, liquids, or combinations thereof) that are utilized for storing solar energy, gathered by a solar collector, for subsequent use.
"Solar energy system" means:
(1) a complete assembly, structure, or design of solar collector, or a solar storage mechanism, which uses solar energy for generating electricity or for heating or cooling gases, solids, liquids, or other materials; and
(2) the design, materials, or elements of a system and its maintenance, operation, and labor components, and the necessary components, if any, of supplemental conventional energy systems designed or constructed to interface with a solar energy system.

Section 15. Associations; prohibitions. Notwithstanding any provision of this Act or other provision of law, the adoption of a bylaw or exercise of any power by the governing entity of a homeowners' association, common interest community association, or condominium unit owners' association which prohibits or has the effect of prohibiting the installation of a solar energy system is <u>expressly prohibited</u>.

Section 20. Deed restrictions; covenants. No deed restrictions, covenants, or similar binding agreements running with the land shall prohibit or have the effect of prohibiting a solar energy system from being installed on a building erected on a lot or parcel covered by the deed restrictions, covenants, or binding agreements, if the building is subject to a homeowners' association, common interest community association, or condominium unit owners' association. **A property owner <u>may not be denied permission to install a solar energy system</u> by any entity granted the power or right in any deed restriction, covenant, or similar binding agreement to approve, forbid, control, or direct alteration of property.**

However, for purposes of this Act, the entity may determine the specific location where a solar energy system may be installed on the roof within an orientation to the south or within 45 degrees east or west of due south provided that the determination does not impair the effective operation of the solar energy system. Each homeowners' association, common interest community association, or condominium unit owners' association shall adopt an energy policy statement regarding the location, design, and architectural requirements of solar energy systems within 120 days after an association receives a request for a policy statement or an application from an association member. An association shall disclose, upon request, its energy policy statement and shall include the statement in its homeowners' common interest community, or condominium unit owners' association declaration.

Section 25. Standards and requirements. A solar energy system shall meet applicable standards and requirements imposed by State and local permitting authorities.

Section 30. Application for approval. Whenever approval is required for the installation or use of a solar energy system, the application for approval shall be processed by the appropriate approving entity of the association within 90 days after the submission of the application. However, if an application is submitted before an energy policy statement is adopted by an association, the 90 day period shall not begin to run until the date that the policy is adopted.

Section 35. Violations. Any entity, other than a public entity, that willfully violates this Act shall be liable to the applicant for actual damages occasioned thereby and for any other consequential damages. Any entity that complies with the requirements of this Act shall not be liable to any other resident or third party for such compliance.

Section 40. Costs; attorney's fees. In any litigation arising under this Act, the prevailing party shall be entitled to costs and reasonable attorney's fees.

Section 45. Inapplicability. This Act shall not apply to any building which is greater than 30 feet in height

Public Act 096-1436

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Solar Urbana-Champaign

5.2 kW Residential System
16 REC 325 W Modules

5.2 kW U-C Residential Roof Array	
Starting price:	**$2.95/Watt ($15,340)**
Site-Specific Adders	
- +$300/module < 21 modules =	**+$1,500**
- 2 Storied roof =	**+ $.19/W ($988)**
Final quoted price:	**$3.43/W ($17,828)**
Installed Cost (**$3.43/Watt**)	$17,828
26% Federal Tax Credit	-$4,635
Est Pre-tax SREC Payments	-$7,965
Max group buy savings (3.5%)	-$624
Net Cost ($0.89/Watt)	**$4,604**

~6,320 kWh/yr offset
~$570 saved in 1st yr
$4,604 / $570 = ~8 yr simple payback

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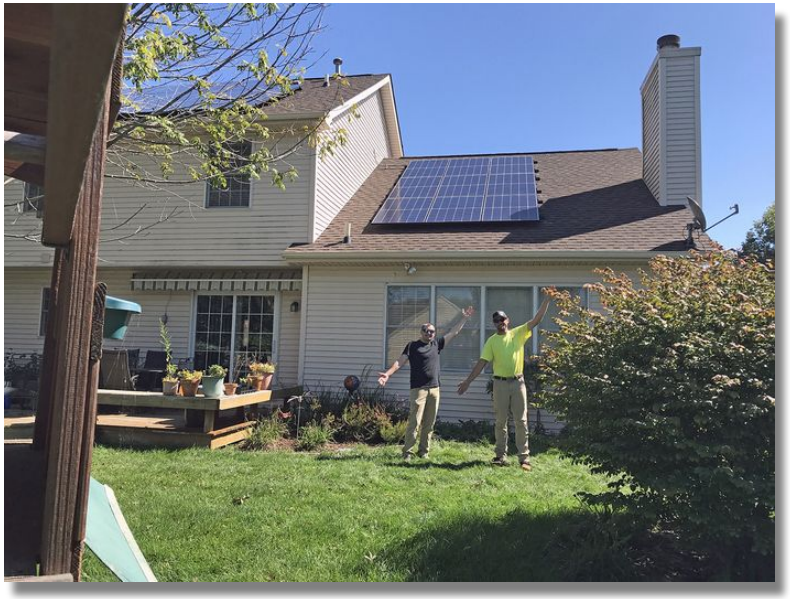
6.175 kW Residential System
19 REC 325 W Modules

6.175 kW U-C Residential Roof Array	
Starting price:	**$2.95/Watt ($18,216)**
Site-Specific Adders	
- +$300/module < 21 modules = +$600	
- 2 Storied roof =	**+ $.19/W ($1,230)**
- Multiple Roofs =	**+$1,300**
Final quoted price:	**$3.45/W ($21,346)**
Installed Cost (**$3.45/Watt**)	$21,346
26% Federal Tax Credit	-$5,550
Est Pre-tax SREC Payments	-$7,560
Max group buy savings (3.5%)	-$747
Net Cost ($0.97/Watt)	**$7,490**



~6,000 kWh/yr offset (west facing)
~$540 saved in 1st yr
$7,490 / $540 = ~13.8 yr simple payback

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8.45 kW Residential System
26 REC 325 W Modules

8.45 kW U-C Residential Roof Array	
Starting price:	**$2.95/Watt ($24,927)**
Site-Specific Adders	
- 2 Storied roof =	**+ $.19/W ($1,605)**
- Line side tap =	**+$1,850**
Final quoted price:	**$3.35/W ($28,382)**
Installed Cost (**$3.35/Watt**)	$28,382
26% Federal Tax Credit	-$7,379
Est Pre-tax SREC Payments	-$12,867
Max group buy savings (3.5%)	-$993
Net Cost ($0.85/Watt)	**$7,143**

~11,000 kWh/yr offset (ideal south)
~$990 saved in 1st yr
$7,143 / $990 = ~7.2 yr simple payback

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Solar Urbana-Champaign

INVEST IN THE ENVIRONMENT

The amount of clean energy you generate in each year compared to conventional utilities would be equivalent to:

Driving
17,694 fewer miles

Growing
4,582 tree seedlings
for 10 years

Taking
39 passenger cars
off the road per year

Solar also, saves 400,000 Gallons of water per year that would be wasted in fossil fuel and nuclear cooling towers.

Up to 40% of fresh water withdrawn in the US is used in power generation.*

*(Based on a 2011 Union of Concerned Scientists Study)

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Next Steps

Part 5 of 5

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Five Easy Steps to Solar

1 Get Started

Share basic information about your home with a Solar Support Specialist to start the process.

2 Set Custom Plan

Receive a customized system layout, proposal, and contract from a Project Developer.

3 Project Guidance

Work with your Project Manager through the engineered design and permitting process

4 Install & Energize

Set a date for our highly-trained installation crew to build, inspect, and energize your system.

5 Enjoy!

Enjoy your new solar array!

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StraightUp SOLAR

Solar Urbana-Champaign

StraightUp SOLAR

Our Contact Information

- Sign Up for a 15 Minute Solar Assessment of Your Home (link is in the Chat)
- **Reach out:**

  Andrew Stetter
  andrew@straightupsolar.com
  (224) 623-5603

- Get More Information:

  StraightUpSolar.com
  844-97-SOLAR

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  ky.ajayi@straightupsolar.com
  (309) 319-6093
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  StraightUpSolar.com
  844-97-SOLAR

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Stay Informed:
Become a Member of the MREA!

Promoting renewable energy, energy efficiency, and sustainable living through education and demonstration.

- $20 Off All Courses
- Invite to Virtual Membership Meeting
- Access to Clean Energy Credit Union
- Subscription to Newsletter
- Free Online Tutorials
- Free Rise Up! Publication Mailed to You

Everyone who goes solar through the program gets a **FREE Basic Family Membership!**

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Sign Up:

SolarUrbanaChampaign.com

Presenter:

Andy Robinson

Issues, comments, questions?

PeterM@midwestrenew.org

Help spread the word!

We have yard signs and promotional kits that you can have to share with your networks.

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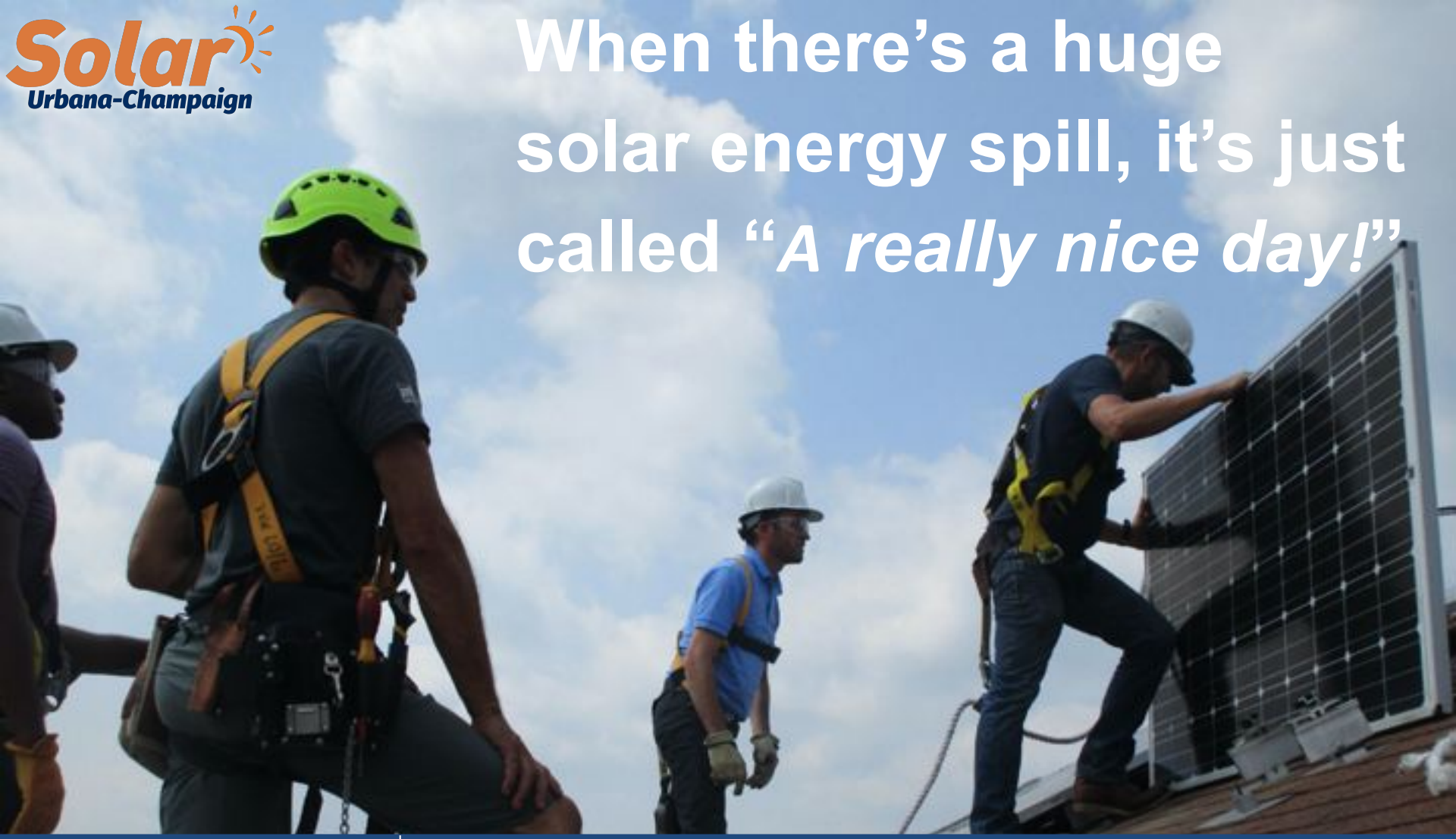

Thank you for attending!

Presenters: Andy Robinson, or Cassie Carroll
Feedback? Questions? PeterM@midwestrenew.org

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