SOLAR GROUP BUY
What is a Solar Group Buy?

A solar group buy program is a way for homeowners, businesses and nonprofits in a community to come together and use their collective buying power to reduce the costs of going solar.

There are solar group buy programs in numerous cities, towns and villages all across the country.
One example of a solar group buy in a neighboring state is Madison, Wisconsin’s program, called MadiSUN, which is in its second year.

Their 2016 group buy campaign resulted in:

- 42 homes installing solar
- $600,000 in local solar investment
- 194 kilowatts of new renewable energy generation
Who Participates In Solar Group Buys?

- Homeowners
- Businesses
- Nonprofits
- Solar Installers
- Solar Instructors & Students
- Solar Ambassadors
3 Main Types of Solar Group Buy Programs

- Nonprofit-led
- Installer-led
- Programs led by both
“Solarize” or “Solar Group Buy”?

“Solarize” began in 2009 in the Mount Tabor neighborhood in Portland, Oregon by Stephanie Stewart, Southeast Uplift, and The Energy Trust of Oregon, with assistance from the City of Portland. That first Solarize program generated 300 interested parties and 120 installations. It’s still going strong today.

“Solarize” is trademarked by Stephanie Stewart and the City of Portland. Nebraska communities interested in using the term, instead of the generic “Solar Group Buy,” can send a request and a description of your program to the City of Portland for review.
Benefits for Installers

• Proven means of increasing the number of solar projects in a community.
• More projects = increased community interest.
• Increased community interest = more projects.
• Free word-of-mouth publicity.
• Marketing and lead-generation costs savings.
• Limited-time discounts reduce customer inertia.
• Customers’ motivation to go solar is higher when they have the opportunity to participate in a group buy program.
• Solar Ambassadors.
• Educational assistance from partnering nonprofits: workshops, panel presentations and tours.
• Political Leverage.
Benefits for Homeowners, Businesses And Nonprofits

• Lower Costs
• Negotiating Power
• Support
• Education
• Political Leverage
“Plug and Play” Solar
About the ConnectDER

• Using the ConnectDER with a solar PV system turns the project into “Plug & Play” solar.

• The device is a meter collar.

• Cables from the inverter are connected directly to the ConnectDER, instead of being routed through your home’s interior.

• The ConnectDER drives down wiring costs, eliminates the need to upgrade electrical service panels in older homes, and reduces site inspection time.

• The device significantly reduces labor and time compared to the traditional installation and connection process, savings which solar installers can pass on to their customers.

• The ConnectDER can be used with solar PV installations up to 15 kilowatts AC.

Watch a brief video about the ConnectDER at: www.connectder.com
StorEdge Solution Inverter Is Compatible With The ConnectDER

**StorEdge™ Solution**

Maximizing Self-Consumption

- Single DC optimized inverter for battery management and on-grid PV
- Compatible with Tesla battery
- Existing SolarEdge systems can be upgraded with the StorEdge™ solution
ITC Deductions

- 30% to December 31, 2019
- 26% to December 31, 2020
- 22% to December 31, 2021
- 10% commercial credit 2022 onwards

The Solar Investment Tax Credit

- Applies to residential & commercial.
- If you don’t have enough tax liability, you can “roll over” the credit to future years.

Source: Database of State Incentives for Renewables (DSIRE) “Residential Renewable Energy Tax Credit”
Claiming the 30% Federal Tax Credit

• Download IRS Form 5695, “Residential Energy Credits” and its separate instructions at: [www.irs.gov/form5695](http://www.irs.gov/form5695)

• Complete the form and include the final result on IRS Form 1040.
LES Offers Additional Solar Incentives

- South-facing, fixed-PV systems: $375 for each kilowatt of the system’s nameplate DC capacity.

- West-facing or single or dual-axis tracking PV system: $475 for each kilowatt of the system’s nameplate DC capacity.
FAQ: Does a storage battery qualify for the 30% Federal Investment Tax Credit?

**ANSWER:** On their own, batteries don’t qualify for federal tax credits. But if a storage unit is charged at least 75 percent by solar, it can qualify for at least part of a U.S. subsidy enjoyed by those projects - the investment tax credit, according to David Burton, a New York-based partner at Mayer Brown LLP.

*Source: Battery Storage Still Needs Solar for Growth*
Many solar group buy programs research solar panels, the inverter and other PV system components and purchase them in bulk to save money.

Solar hardware typically costs $1 to $1.50 / installed watt.
DIY Site Assessment

Ideal Rooftops

- Have some south-, southeast-, southwest- or west-facing roof area.
- Are not shaded by trees, buildings or other obstacles.
- Have sufficient roof area for your project.
Additional Considerations

• **The energy efficiency of your home:** Investing in efficient appliances and LED lighting, for example, will have a significant impact on your electric bill. And when you use less electricity, a smaller solar array may meet your needs.

  A free App has just come out called *Right Light* that helps you choose the best energy-efficient LED for your purposes: The website is: [http://rightlightapp.org/default.aspx](http://rightlightapp.org/default.aspx)

• **Your roof’s condition:** Your roof should be in good condition before installing solar panels. If you anticipate re-roofing your home in the next 5-10 years, it may make sense to wait on installing solar or to install a ground-mounted system, or a solar canopy or arbor. Your garage is yet another option.
Don’s Ground-Mounted System
Solar Arbors in Hartington
Cedar-Frame Solar Canopy
Janece and Wayne’s Garage
Pat’s Garage
Arnie and Marilyn’s Solar Awnings
Pole-Mounted Solar Panels Powering A Net-Zero Energy Home
GROUP BUY CAMPAIGN OPTIONS

• Competitive bidding on all projects and one installer is selected - most common.

• Cooperative, limited-time % discounts requested from installers participating in the campaign:

  1. Traditional installations (without the ConnectDER): 15% - 25% discounts typical in solar group buy programs across the country.
  2. Proposed discount with the ConnectDER: 25% minimum.
$ So how much will it cost?

Example: 3-kilowatt system
Typical Cost = $3.00 - $3.50 / installed watt

- 3-kilowatt system: 3,000 watts x $3.50/watt = $10,500
- PV “hardware” typically costs $1 to $1.50/watt
  3-kilowatt “hardware” cost @ $1.50/watt = $4500
  $10,500 - $4,500 = $6,000
- Group Buy Discount of 25% With the ConnectDER
  $6,000 - $1,500 = $4,500 (Installer’s Earnings)

Your Cost After Deducting the 30% Solar ITC

- $9,000 minus 30% or $2,700.00 = $6,300.00
Why Solar Group Buy Discounts Make Sense

1. Bulk purchasing solar systems saves money.
2. The ConnectDER provides a “fast-track” means of installing solar PV systems, saving labor and money over the conventional process.
3. The ConnectDER minimizes site-inspection time.
4. The device saves owners of older homes and businesses from having to upgrade their electrical service panels or run wiring through their homes.
5. Installers benefit from the group’s free word-of-mouth publicity.
6. Free educational support.
7. Savings on marketing and lead-generation.
Proposed Solar Group Buy Basics

1. Keep it simple.
2. Build a collaborative effort among homeowners, businesses, nonprofits and installers.
3. Collaborate with other communities that want to develop solar group buy programs.
4. Create flexible and inclusive solar group buys.
5. Include all local installers in your city or town.
6. Allow group members to choose an installer in another community who agrees to the program basics listed here.
7. Offer limited-time group buy discounts.
8. At the completion of a campaign: Celebrate!
9. Start a new campaign.
I’m Interested!
ADDITIONAL RESOURCES

► Solar Group Buy Handout: Information and Links from this PowerPoint
► Directory of Nebraska Solar Businesses at www.nebraskansforsolar.org
► Solar Examples at Nebraskans for Solar’s Website

If you are starting a Solar Group Buy or Solarize™ Program in your community and would like to use the Solar Group Buy PowerPoint and the companion Solar Group Buy Handout, please contact Helen Deffenbacher and she will email them to you as Word documents, which you can edit and customize:

nebraskansforsolar@gmail.com