A person in a red shirt is working on a roof, likely installing solar panels. The background shows a house with a white balcony and a blue sky with light clouds. The text is overlaid on a semi-transparent white rounded rectangle.

# BUILDING A LOCAL SOLAR MARKET

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# Grow Solar

Led by the MREA, Grow Solar initiatives span multiple Midwestern states

We've been able to do this work thanks to a Department of Energy Sunshot initiative grant.



An aerial photograph of a residential house with a grey roof. A large array of solar panels is installed on the roof, covering most of the area. The house has white siding and a brick chimney. The background shows green trees.

## Learning Objective

Attendees will gain an understanding of a variety of steps and strategies to grow the solar market in their community.

# Agenda

- Permitting, Planning, and Zoning
- Financing programs for solar
- Training Inspectors
- Municipal projects
- Community programs

# Solar PV Installations To Date

Now over 27.4 GW of solar PV installed in US

Enough to power over 5.4 million homes

Solar represented 29.4% of all new electric generating capacity brought on-line in the U.S. in 2015, more than natural gas!

*SEIA Solar Market Insight Report*



**A NEW SOLAR  
SYSTEM IS  
INSTALLED EVERY  
2.5 MINUTES  
IN THE US**

# Permitting, Planning, and Zoning

- Solar Rights legislation
- “We don’t have anything prohibitive to solar”
- Removing regulatory barriers and complexity does not, by itself, spur market activity.
- Grow Solar can review your documents.



# Expedited Permitting case study

- Began with stakeholder meeting (City staff, inspectors, utility reps, local installers, solar industry professionals)
- Specific eligibility requirements
- Worksheet for installers
- Saves money
- Saves time
- List of solar installations for Assessor

# PPZ state toolkits at GrowSolar.org

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Join the solar workforce.  
**SOLAR TRAINING**

  
midwest renewable energy association

Quality education since 1990.



A photograph of a white, two-story house with a gabled roof. The roof is covered with dark solar panels. The house has white siding and a central front door with a small porch. The background is a clear blue sky.

# Solar Financing

- Low-interest solar loans to city residents.
- The City of Milwaukee provided \$100,000 in donated funds as a loan-loss reserve, and Summit Credit Union leveraged those funds to offer \$2 million in low-interest solar loans.
- Since being established in 2010, the Milwaukee Shines Solar Financing Program has provided over 30 loans to Milwaukee residents and **none have defaulted.**

# PACE Financing

- Cities set up special clean energy finance districts capable of issuing low-interest bonds.
- Participating home/business owners can use the bond money to pay for renewable energy and energy efficiency improvements
- Pay the lien back through a long-term assessment on their property taxes.
- Spreads the cost of a new solar energy system out across a 20-year payment plan that is easily transferable to the next property owner

# Inspector Training

- Solar systems that aren't code-compliant could present a risk to building occupants, system owners, the public, solar technicians, and other contractors.
- Inspectors unfamiliar with solar can approve improperly installed solar arrays, or can delay projects due to concerns.
- We have led a number of inspector trainings around the region and would love to help train your inspectors.
- Continuing Education Credits

A photograph showing a green roof with several solar panels installed. In the background, a large, classical-style building with many columns is visible under a clear sky. The solar panels are dark blue and mounted on a white frame. The green roof is covered with various plants and grasses.

# Municipal Projects?

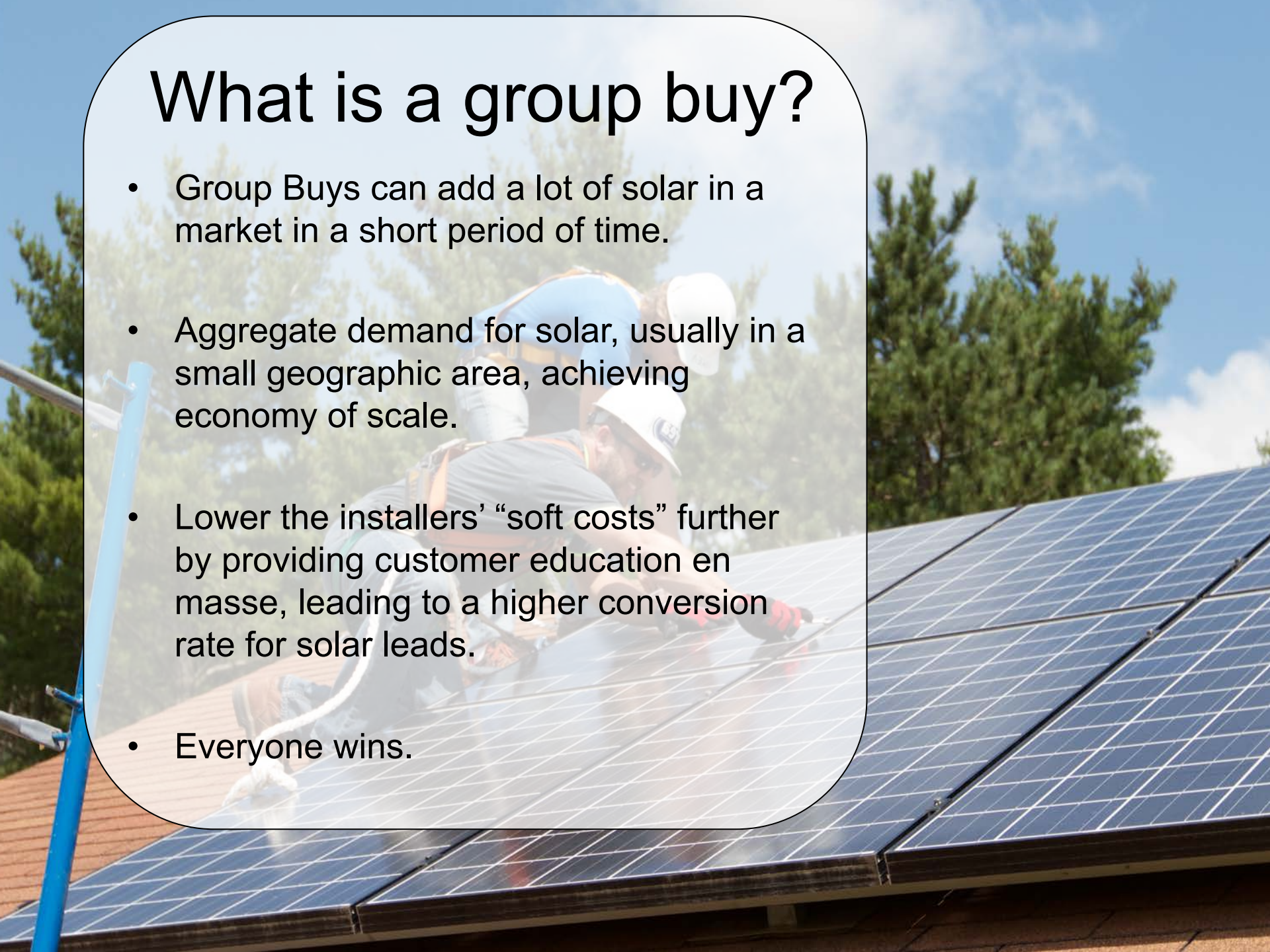
- Set an example
- Highly visible
- Start a conversation
- Demonstrate priorities



**Community 'Group Buy'  
Programs to Advance  
Rooftop Solar**

# What is a group buy?

- Group Buys can add a lot of solar in a market in a short period of time.
- Aggregate demand for solar, usually in a small geographic area, achieving economy of scale.
- Lower the installers' "soft costs" further by providing customer education en masse, leading to a higher conversion rate for solar leads.
- Everyone wins.



# Guiding Principles

- Customers adopt solar when their neighbors or others in close **proximity** adopt solar.\*
- The presence of **affinity groups** that advocate for solar lead to more installations in a given area.
- **Discounts with deadlines** help a greater number of people decide that “now is the time.”

\*Graziano, Marcello, and Kenneth Gillingham. "Spatial patterns of solar photovoltaic system adoption: the influence of neighbors and the built environment." *Journal of Economic Geography* 15.4 (2015): 815-839., Bollinger, Bryan, and Kenneth Gillingham. "Peer effects in the diffusion of solar photovoltaic panels." *Marketing Science* 31.6 (2012): 900-912.

# Structuring Collective Action

- Grassroots Program
- Tiered Pricing
  - 50 kW | 100 kW | 150 kW
- More participants means lower pricing for all





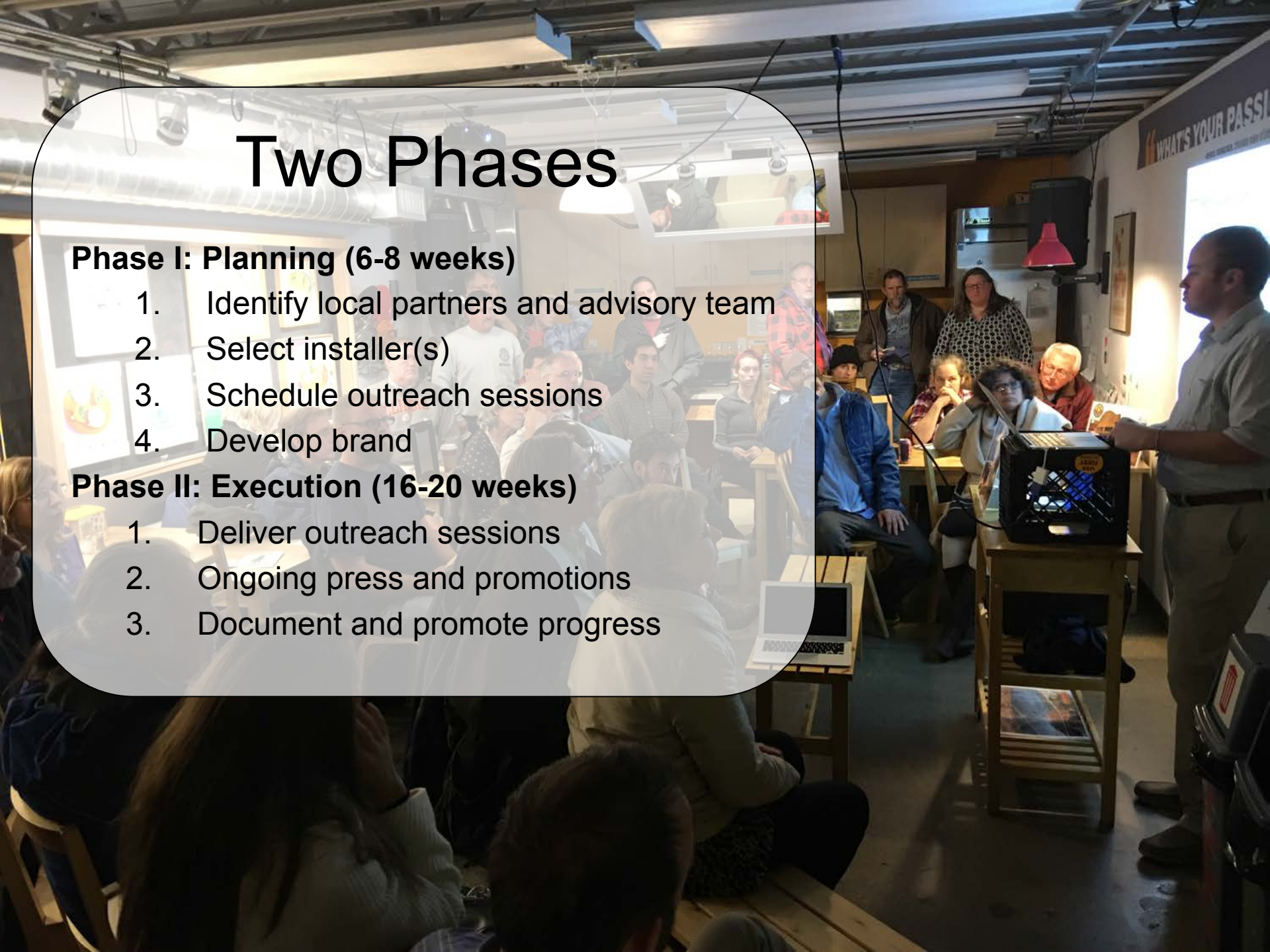
# Two Phases

## Phase I: Planning (6-8 weeks)

1. Identify local partners and advisory team
2. Select installer(s)
3. Schedule outreach sessions
4. Develop brand

## Phase II: Execution (16-20 weeks)

1. Deliver outreach sessions
2. Ongoing press and promotions
3. Document and promote progress



# Roles

- Lead Organization  
(In our case, MREA)
- Jurisdiction
- Community
- Installer



# Messaging

- Emphasis on the power of local people to make the program a success
- Regular press contact
- Participants to the front



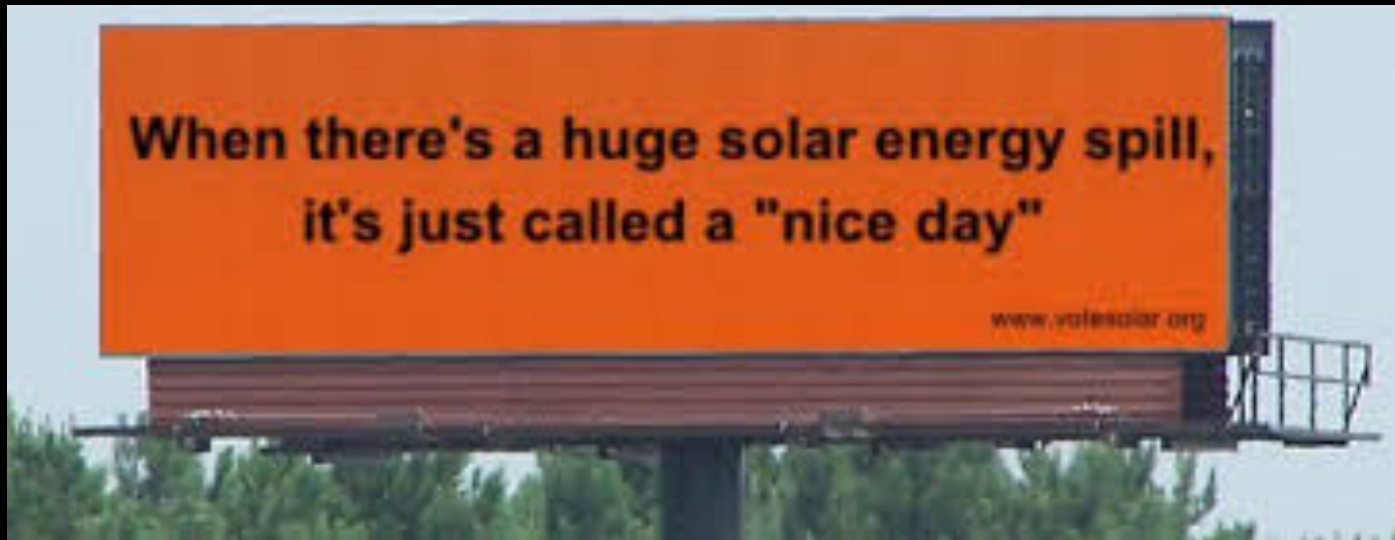
# Promotion

- Do:
  - Yard Signs
  - Posters, handbills, flyers
  - Emails from local networks/orgs
- Don't:
  - Billboards
  - Commercials



# Next Steps

- Attend the other sessions in this track
- Familiarize yourself with state and local incentives ([dsireusa.org](http://dsireusa.org) is a good place to start)
- Reach out to Grow Solar for help
- Optimize PPZ
- Set up local financing for solar
- Train Inspectors
- Pursue Municipal projects
- Launch Community programs



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