

A photograph of a person in a red shirt standing on a ladder, installing solar panels on the roof of a house. The house has light-colored siding and a dark roof. The sky is blue with some clouds. The text is overlaid on a semi-transparent white rounded rectangle.

Building a Solar Market through Solarize Programs

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Solar PV Installations To Date

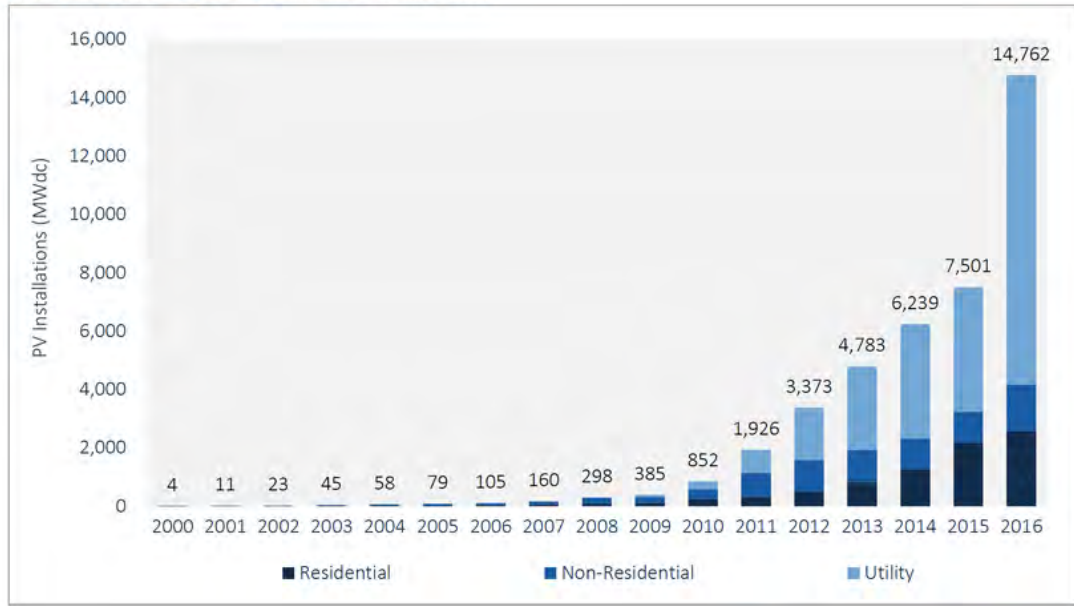
- Now over 44.7 GW of solar PV installed in US
- Enough to power over 8.7 million homes
- For the first time ever, solar ranked as the No. 1 source of new electric generating capacity additions brought on-line on an annual basis at 39% in 2016. SEIA Solar Market Insight Report



**A NEW
SOLAR ARRAY
IS INSTALLED
EVERY
84 SECONDS
IN THE U.S.**

Annual US PV Installations 2000-2016

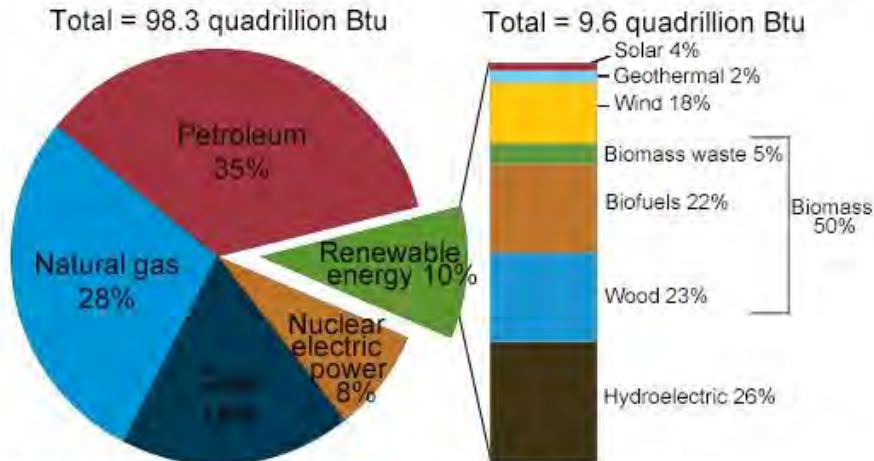
Figure 1.1 Annual U.S. Solar PV Installations, 2000-2016



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gtmresearch SEIA Solar Energy Industry Association

U.S. energy consumption by energy source, 2014



Note: Sum of components may not equal 100% as a result of independent rounding.

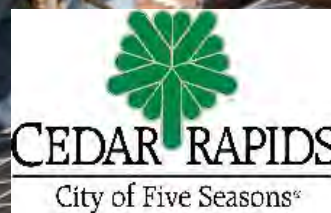
Source: U.S. Energy Information Administration, *Monthly Energy Review*, Table 1.3 and 10.1 (March 2015), preliminary data

eia

Despite strong growth in the solar industry, solar PV still accounts for only a fraction of a percent of our overall energy supply.

Why are we here?

To lead in creating more sustainable communities by making solar simple.



What is a group buy?

Lower Prices through:

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

Everyone wins.

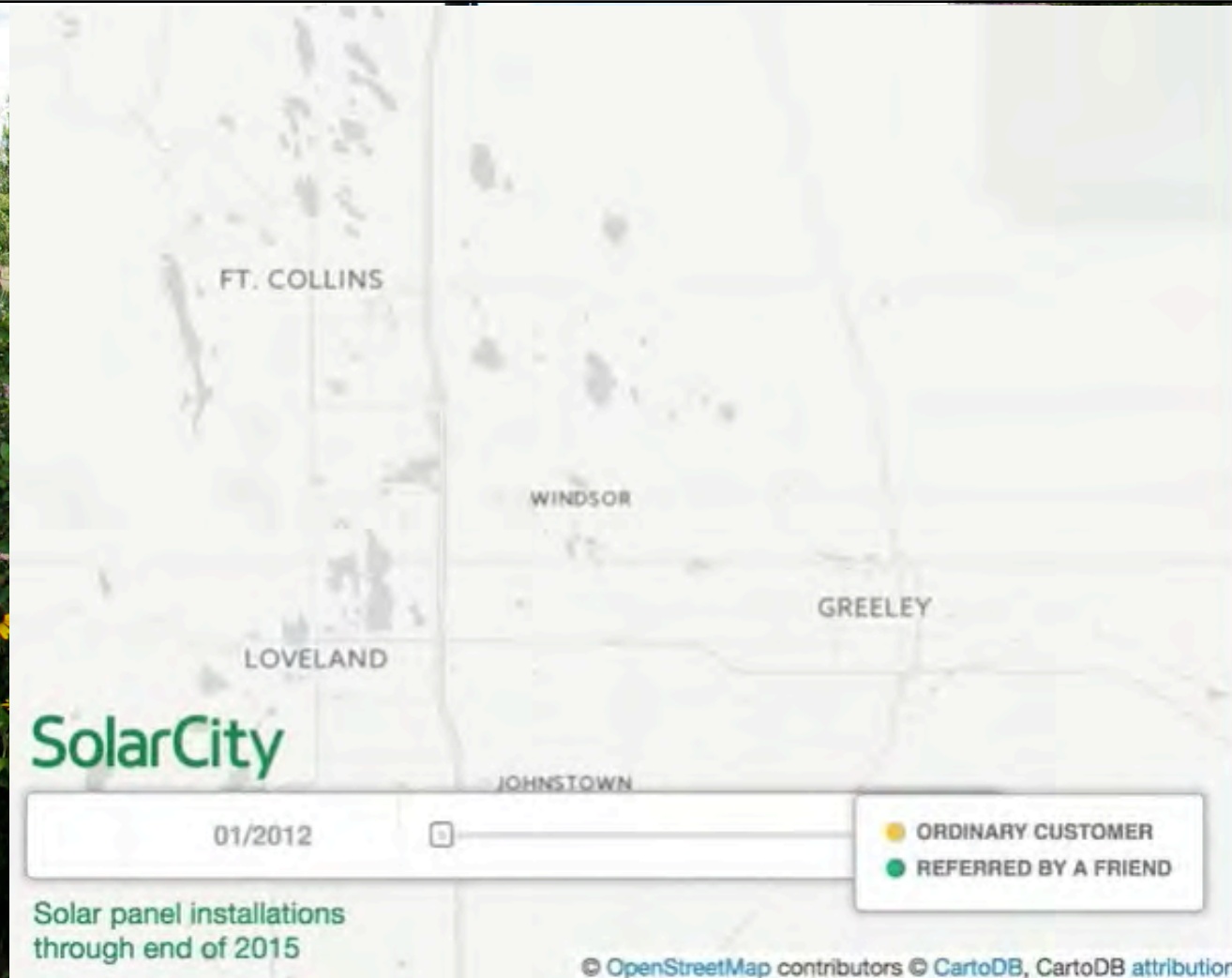
Guiding Principles

- 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.

Contagion: Adding one rooftop system on a block increased the average number of installations within a half-mile radius by 0.44.

*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.



Solar Group Buys



Solarize
Montgomery



Structuring Collective Action

- Grassroots Program
- Tiered Pricing
50 kW | 150 kW | 250 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. Document and promote progress
3. Ongoing press and promotions
4. Install solar



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

- We've had success with:
 - Yard Signs
 - Posters, handbills, flyers
 - Business cards
 - Emails from local networks/orgs
 - Social Media
 - Radio
 - Farmers Markets, local events



Outcomes

- Added over 3,700 kW of solar
- 578 homes and businesses
- Reached over 4,400 individuals in person
- 9-15% lower cost for customers
- Positive press and visibility for the jurisdiction and partner organizations



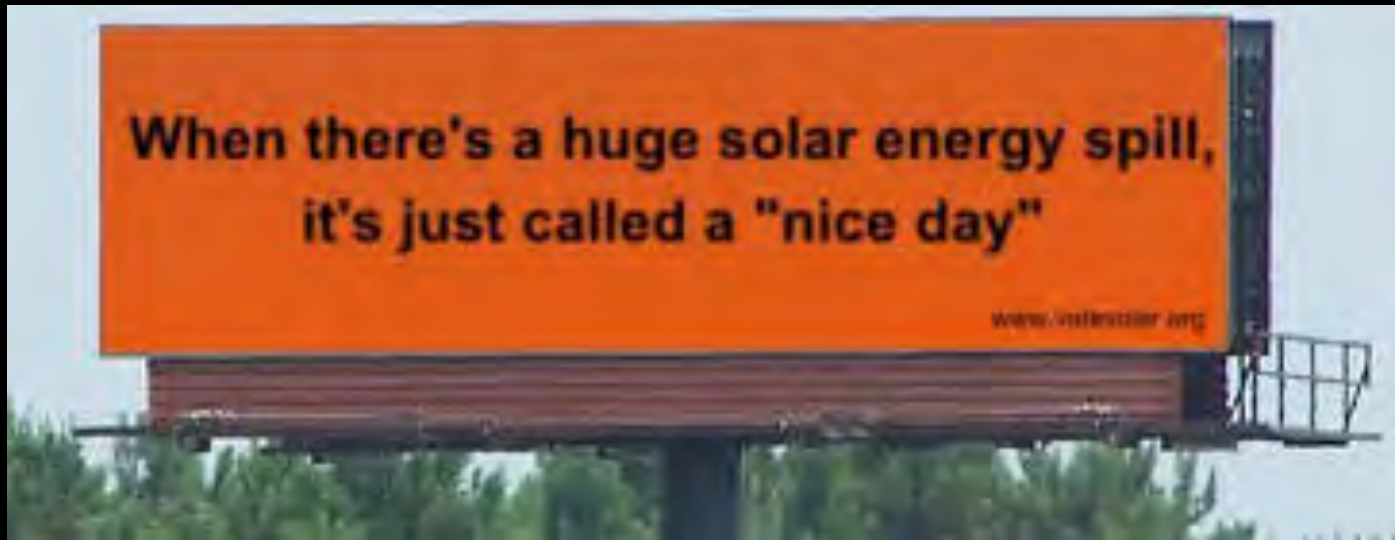
Survey Responses

- In a survey of group buy participants in 3 markets in Wisconsin and Illinois...
 - **73% said important or extremely important** that the group buy program is managed by an independent, nonprofit organization (MREA in our case).
 - **80% said important or extremely important** that the group buy program has the support of a municipality.
 - **75% said important or extremely important** that the information provided at the Solar Power Hour is developed by an independent, non-profit organization.
- Without the group buy, how likely were you to install solar?
 - **45% said not likely**
 - **20% said likely**

- Let's lower these 4 barriers to adoption of solar energy:
 - Convenience barrier
 - Demonstration/Social Norm barrier
 - Information/Uncertainty barrier
 - Cost barrier

Grow  lar





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