

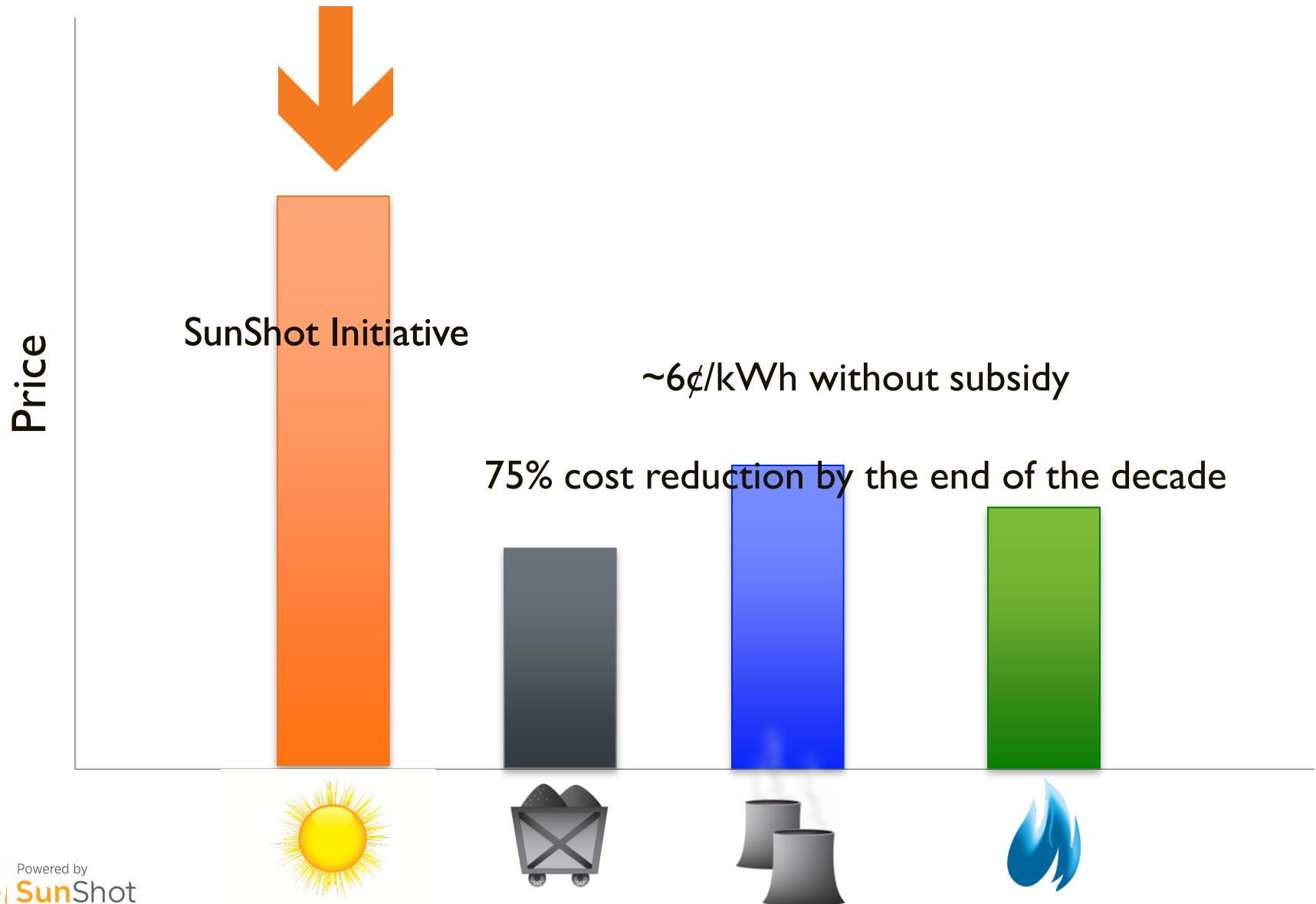
# Solar Action Webinar Series: Innovation and Success in Planning and Zoning July 24, 2013



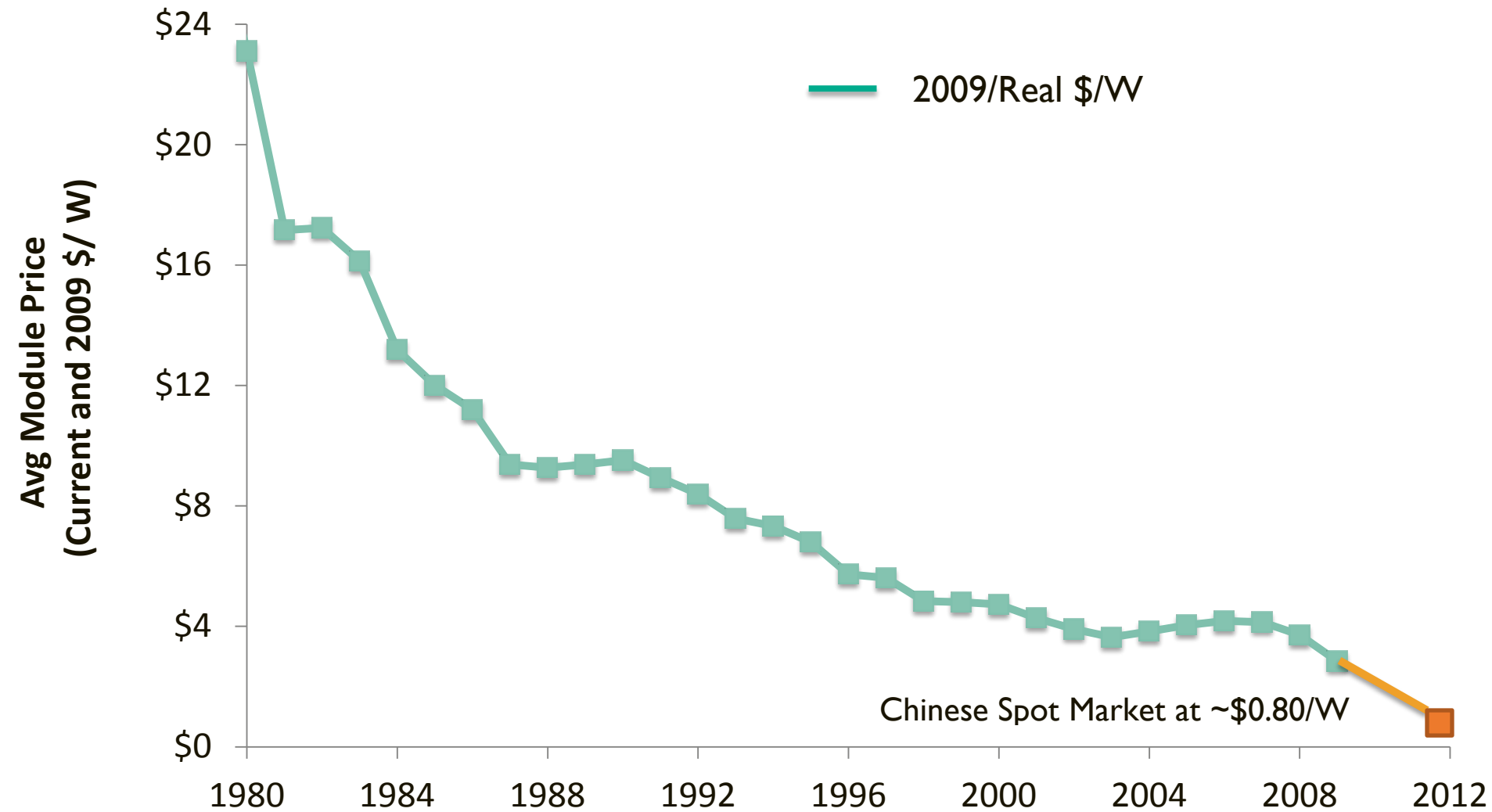
Powered by  
**SunShot**

U.S. Department of Energy

# Why we're here: The Big Picture



# Panel Prices Plummeted



# However...

“Even if you paid nothing for the hardware, you'd still pay thousands of dollars to install a residential solar power system.”

- Former Secretary Chu



# What is SunShot targeting?

## Soft Costs



Financing



Permitting



Customer  
Acquisition



Installation



Maintenance

=

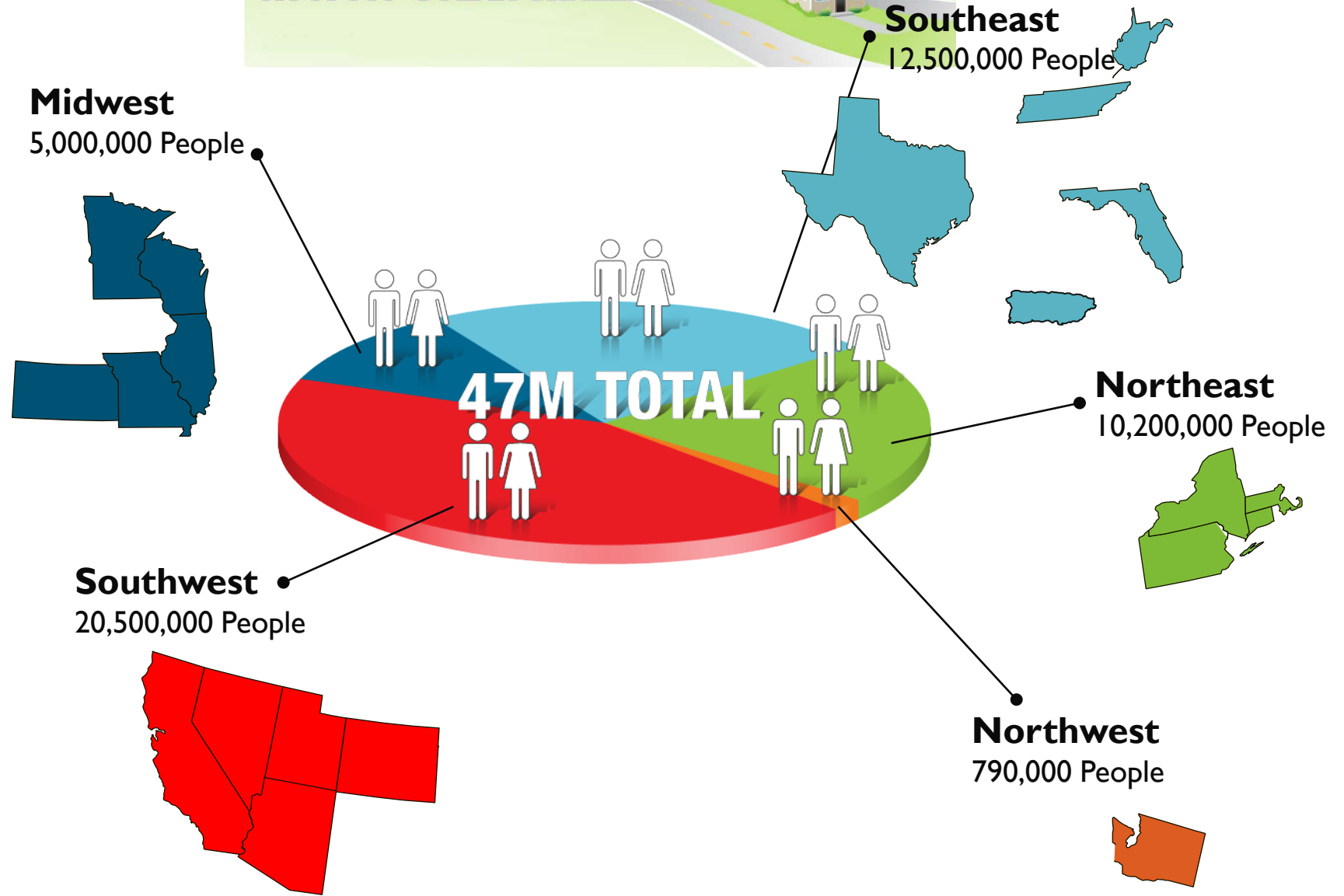
Up to **50%** of the  
cost of a solar  
installation



# The Planning and Zoning Puzzle



# ROOFTOP SOLAR CHALLENGE



# Rooftop Solar Challenge Successes

## Permitting

- 40% Faster
- 12% Cheaper



**Overall Time Saved: One Week**





# What Does One Week of Time Mean?

PV Installed in RSC locales:

Residential: 225 MW

Commercial: 357 MW

37,960 Residential  
Systems

3,148 Commercial  
Systems

Average Business Days  
Saved Per Install = 5.1

Average Business Days  
Saved Per Install = 4.1

Which means the RSC saved  
Americans from an  
estimated...

**792 YEARS OF RED TAPE**

# Today's Presenters

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- **Amy Heart**, Solar Program Manager
  - City of Milwaukee
  
- **Jeffrey Naftal**, Borough Manager
  - Borough of Dormont in Pennsylvania
  
- **Mayana Rice**, Planning and Zoning Administrator
  - Greater Bermidji Area Joint Planning Board

# Milwaukee Shines

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## *Creating a Foundation for Solar*

SunShot Initiative

*Solar Action Series: Innovation and Success in Planning and Zoning*

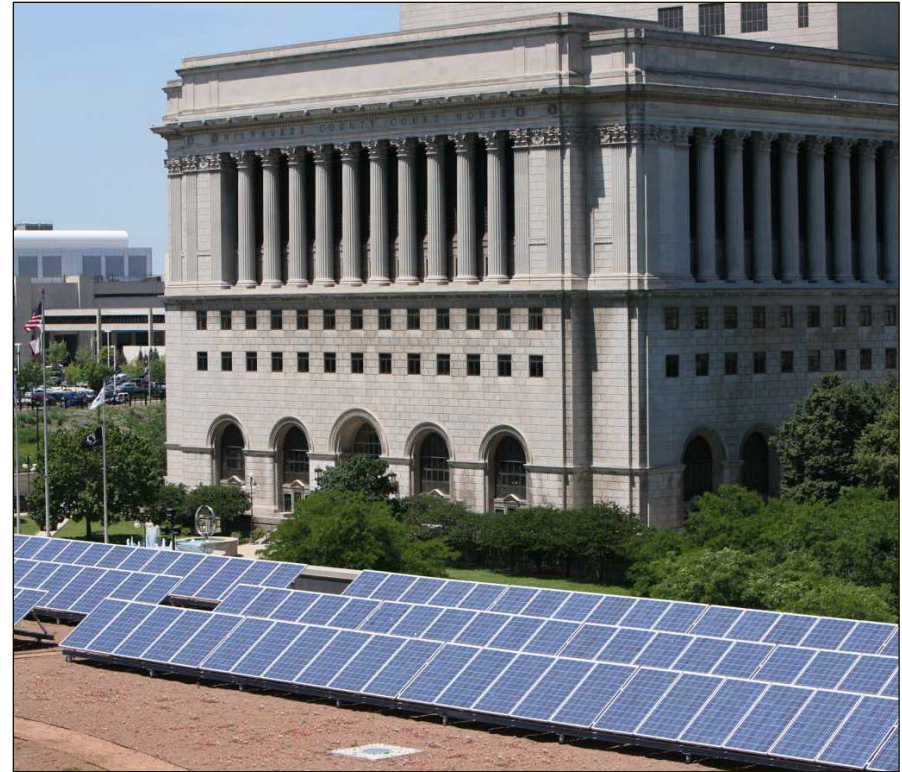
July 24, 2013

# Milwaukee Shines

## U.S. Dept. of Energy Support Solar America Cities & SunShot Initiative

### GOALS

- Increase installations
- Increase installers
- Reduce cost of solar
- Support solar supply chain
- Partnership: public-private



# Milwaukee Shines

## SunShot Initiative Rooftop Solar Challenge I *Reducing Soft Costs*

- Planning and Zoning
- Permitting
- Policies: net metering, 3<sup>rd</sup> party
- Financing Solutions
  - Low-interest loan program
  - Neighborhood Group Buys
  - Milwaukee Power Pack





# Milwaukee Solar Zoning

## Wis. Stat. § 66.0401: Solar Access Rights

No political subdivision may place any restriction on install of solar energy system unless satisfies one of following:

1. Serves to protect public health or safety. (“welfare” excluded)
2. Does not significantly increase cost of system or decrease efficiency.
3. Allows for alternative system of comparable cost and efficiency.





# Milwaukee Solar Zoning

## Local Solar Zoning Ordinance: General Requirements

- Solar installation = accessory
- Rooftop: no restrictions
- Ground mount: front and side set backs requested (no more than 2')
- Points back to state statute language

## Historic Preservation Requirements

- Provides for a review process, most likely staff approval (not committee level)
- Reviews may require installer to provide multiple options, costs, and site plans.



# Milwaukee Solar Zoning

## Local Solar Zoning Ordinance:

### Solar Farm Requirements

- Solar Farm = Primary use

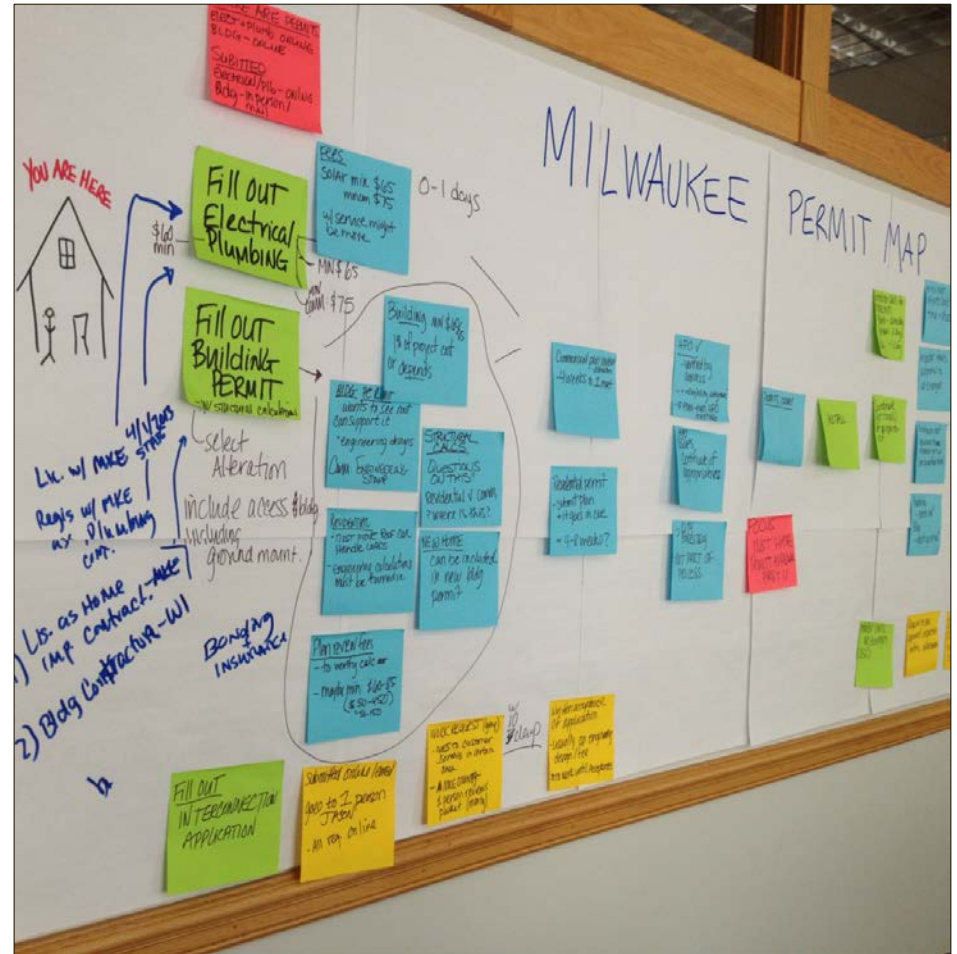
ZONING DISTRICT	USE
Residential	Permitted
Commercial	Special
Commercial Services	Permitted
Downtown	Special
Industrial	Permitted
Special (Schools)	Permitted
Lakefront Overlay	Special



# Milwaukee Permitting

## First Things First

- What does current structure look like?
- Everyone in same room
- Focus on ease for staff and solar community





# Milwaukee Permitting

## First Things First

- What does current structure look like?
- Everyone in same room
- Focus on ease for staff and solar community

## Provide Resources / Examples

- Step by step instructions
- Samples of completed forms (expectations)
- Checklist for submission
- **Contact name and number**

The screenshot shows the top portion of the 'Milwaukee SHINES' website. The header includes the City of Milwaukee logo and the slogan 'FOR A SUSTAINABLE SOLAR FUTURE'. Below the header is a navigation bar with links for 'Milwaukee Shines', 'Solar Basics', 'Go Solar - How to', and 'Solar Resources'. The main content area is titled 'City of Milwaukee: Solar Permitting Guide' and 'HOW TO INSTALL SOLAR: STEP BY STEP PROCESS'. A red notice states: '\*This website is a work in progress. Please be patient with us while we complete all updates. If you have feedback, please contact Milwaukee Shines.\*' Below this, a paragraph explains that the Department of City Development (DCD) ensures the quality and safety of solar installations and provides a step-by-step permitting process. A 'CHECKLIST' section follows, encouraging installers to use helpful checklists for solar electric and hot water installations. On the right side, there is a 'Stay Connected' section with social media icons for Facebook, Twitter, and LinkedIn, and a 'Join Email List' button. Below that is a 'Questions? Contact Us' section with contact information for the Department of Community Development, including the address '809 N. Broadway Street, Zeidler Municipal Building, First Floor' and the email 'DevelopmentCenterInfo@milwaukee.gov'.

The screenshot shows a 'Solar Photovoltaic (PV) System Submittal Checklist' form. The form is titled 'Instructions:' and lists two main steps: '1. Type or print a separate form for each location.' and '2. Return all copies with permits and fee to: Milwaukee Development Center, 809 N. Broadway Street, Milwaukee, WI 53202-3617, PH: (414) 286-8207; FAX: (414) 286-0251'. Below the instructions is a section titled 'Installer Credentials:' with four checkboxes: 'I have the State of Wisconsin Master Electrician License.', 'I have the City of Milwaukee Electrical License.', 'My business/I have the State of Wisconsin Dwelling Contractor Certification.', and 'My business/I have or employ someone who has the State of Wisconsin Dwelling Contractor Qualification.'. The final section is 'Documents:', which includes checkboxes for 'Completed City of Milwaukee Home Improvement Contractor License.', 'Completed City of Milwaukee Electrical Permit Application (can be submitted via e-Permits)', 'Completed Milwaukee Building Permit Application', and 'Completed Plan Review Application'. There are also partial checkboxes for 'Roof documentation showing' and 'grade'.

# Milwaukee Permitting

## Process and Policy Improvements

- Consistent cost (1 fee, under \$100)
- Expedited permit process
  - [www.solarabcs.org/permitting](http://www.solarabcs.org/permitting)
- Reduce days to approve
- Improve inspection: require training
- Online submission
- Contact name and number



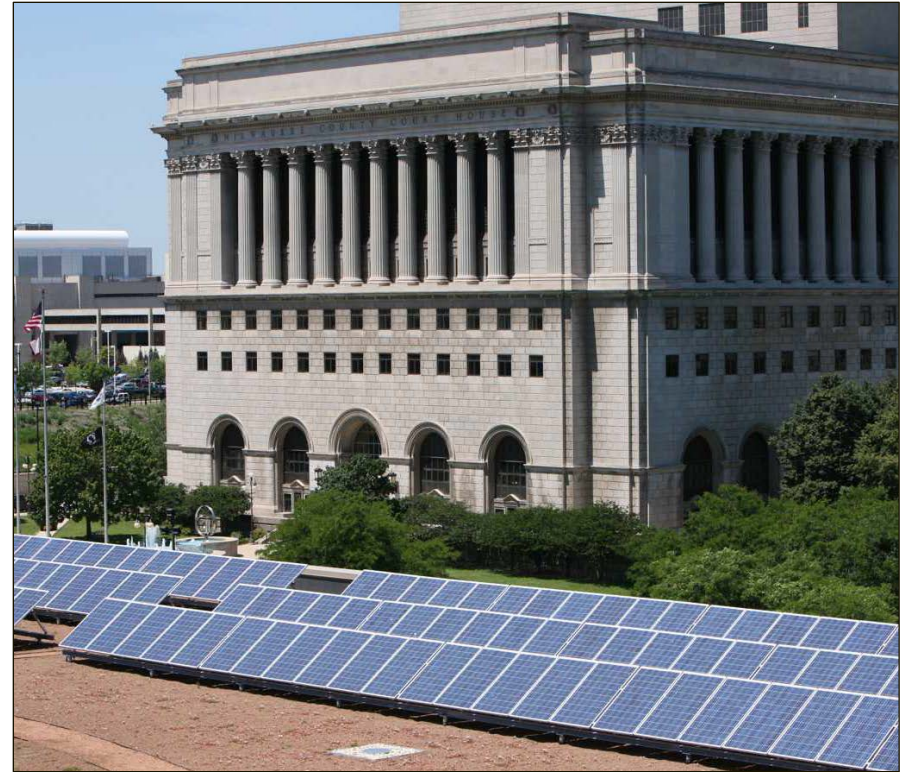
# Milwaukee Shines

**Milwaukee Shines**

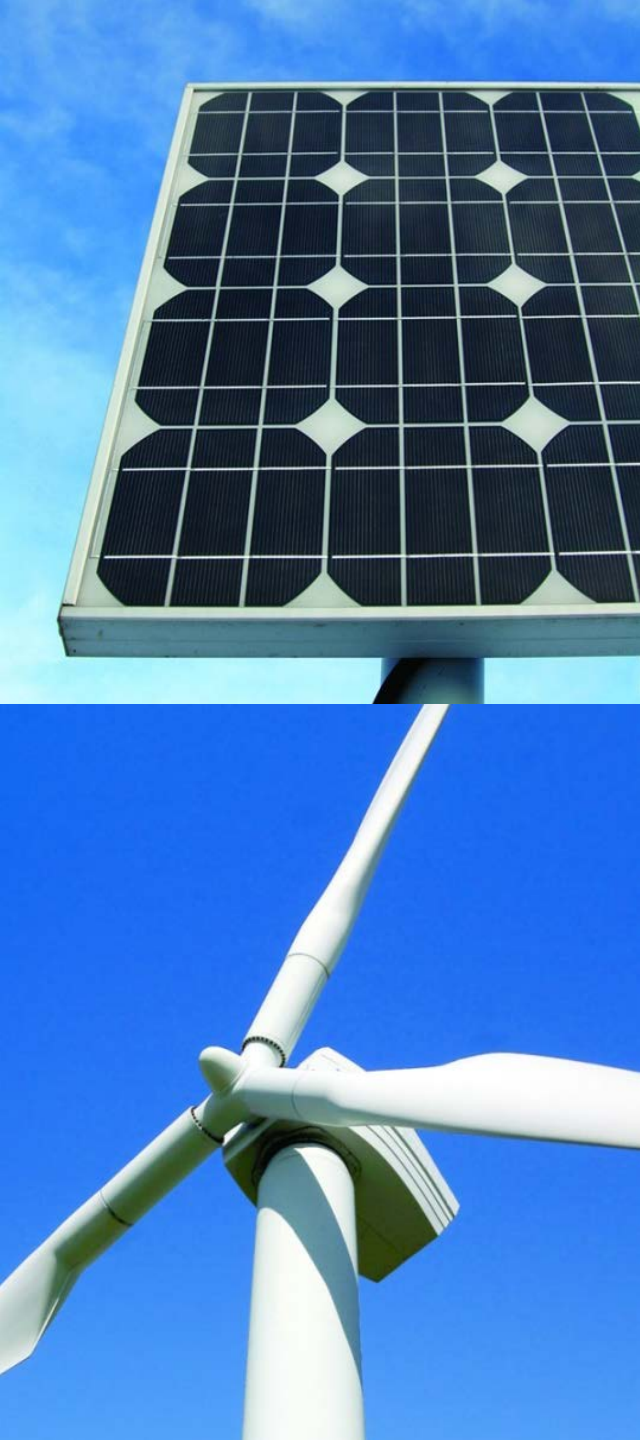
[www.MilwaukeeShines.com](http://www.MilwaukeeShines.com)

[www.wisolar.org](http://www.wisolar.org)

Amy Heart  
Solar Program Manager  
City of Milwaukee  
[aheart@milwaukee.gov](mailto:aheart@milwaukee.gov)  
414-286-5593







# Borough of Dormont, PA

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## **NREL Planning and Zoning Webinar**

**July 24, 2013**

**Jeffrey Naftal, Borough Manager**

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# What We Did

- ❖ The Congress of Neighboring Communities (CONNECT), in partnership with PennFuture, was awarded a SunShot Rooftop Challenge Grant to develop a model Photovoltaic Zoning Ordinance for the City of Pittsburgh and surrounding communities.
- ❖ The Borough of Dormont, as a CONNECT community, was invited to participate in this effort and agreed to do so.
- ❖ After the model ordinance was promulgated, we implemented the model ordinance for the Borough following Planning Commission and Allegheny County approval.

# Keys to Success



## KEY #1 – THE JOINT PROCESS INVOLVING ALL MUNICIPALITIES

- ❖ The development of the model ordinance would never have been accomplished without the participation of so many varied municipalities.
- ❖ Each municipality has its own unique situation, its own unique needs and wants, and its own unique physical characteristics. Blending those makes the model work.

# Keys to Success



## KEY #2 – INVOLVING ALL AREAS OF THE MUNICIPALITY

- ❖ Just as the varied municipalities helped achieve an ordinance that could be used by everyone, the participation of municipal attorneys, engineers, building officials, elected officials, and administration was critical to this process.
- ❖ By involving all of these various groups, potential problems were addressed during development of the model ordinance, not after attempting to implement the ordinance.

# Keys to Success



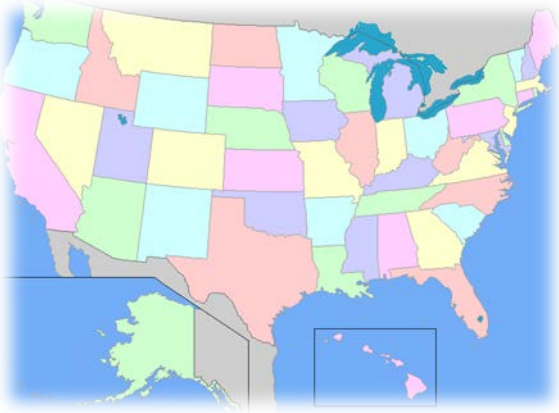
## KEY #3 – PROJECTS LIKE THIS NEED A CHAMPION

- ❖ Those municipalities without a champion for this did not participate in the process and are not moving forward with implementing the model ordinance.
- ❖ The champion has to encourage all levels of the municipality to participate in the process and convince the elected officials and public that this is important.
- ❖ While the champion does not have to be a top administrator they must have the support of the top administration officials.

# Links of Interest

- ❖ The Ordinance can be found on our website at [www.boro.dormont.pa.us](http://www.boro.dormont.pa.us) under the “Departments” tab and then on the “Environmental Information” page.
- ❖ Click on [www.connect.pitt.edu](http://www.connect.pitt.edu) for more information on CONNECT, this project and their other projects.





# Bemidji Minnesota solar...because of our citizens

Mayana Rice, AICP  
Planning and Zoning Administrator  
Greater Bemidji Area Joint Planning Board

[www.jpbgba.org](http://www.jpbgba.org)  
[www.ci.bemidji.mn.us](http://www.ci.bemidji.mn.us)  
[www.bemidjيتownship.com](http://www.bemidjيتownship.com)  
[www.northerntownship.com](http://www.northerntownship.com)



# Greater Bemidji Area

Participate in a “joint planning” process

Planning area 72 SQ Miles

First City on the Mississippi

Population:

City – 13,500

Area – 20,000

Within 150 Miles – 100,000



*Lumberjack Chic*

<http://www.nicholasjackson.net/>



# The Back Story

Event Center 2010 – South Shore PUD  
Sustainability Committee City of Bemidji  
Green Steps Cities  
Minnesota Solar Challenge  
Comprehensive Plan  
Updated Zoning Code





# Our Future

Planned Unit Developments

Comprehensive Plan

Solar Mapping

BSU – NWTC Renewable Energy & Sustainable Technologies

# Questions?