Solar Action Webinar Series:
Organizing and Strategizing A Local/Regional Solar Effort

June 14, 2013

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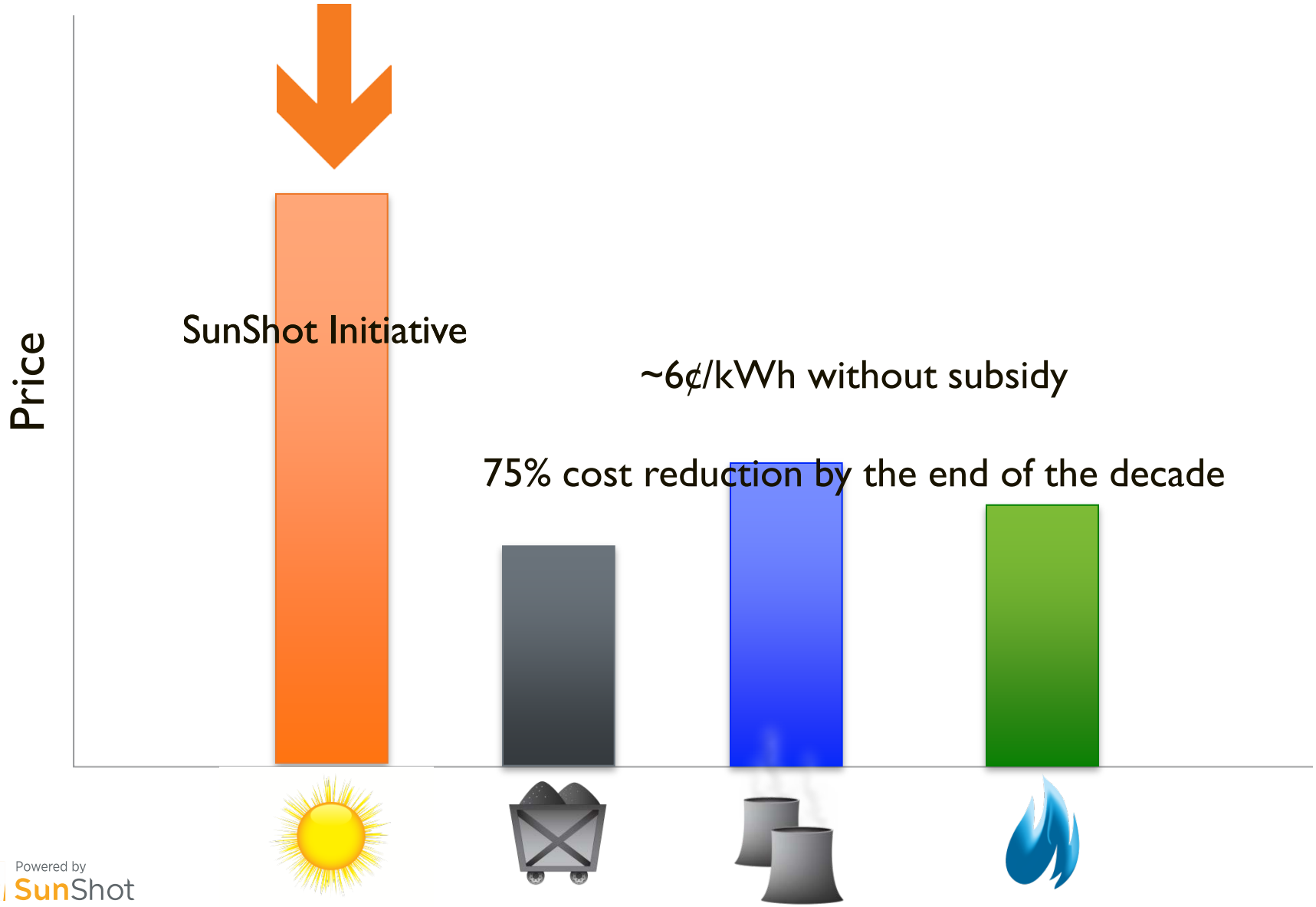
U.S. Department of Energy

Why We're Here: The Big Picture



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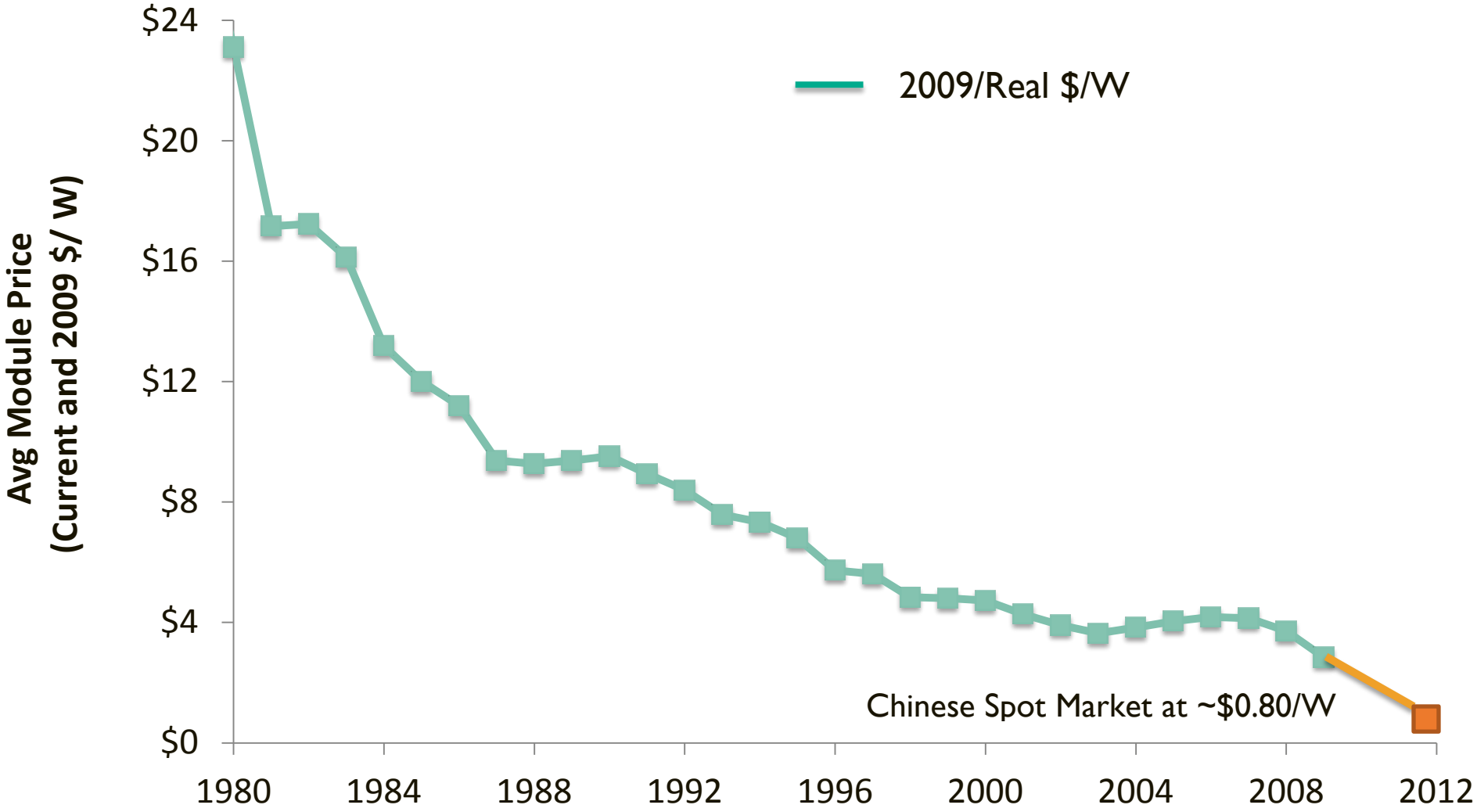
Panel Prices Plummeted



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Source: Mints, P. (2011). *Photovoltaic Manufacturer Shipments, Capacity, & Competitive Analysis 20010/2011*. Report # NPS-Supply6. Palo Alto, CA: Navigant Consulting Photovoltaic Service Program.

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

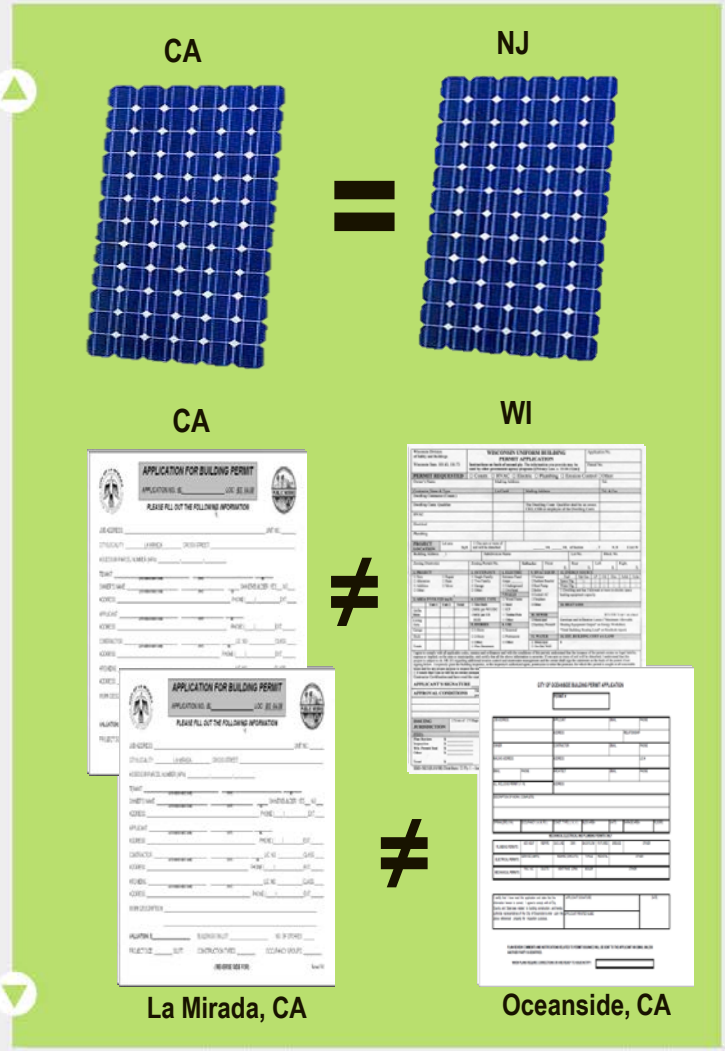
=

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

A Fragmented Marketplace

The Problem:

- 18,000+ local jurisdictions with authority over PV permitting requirements, land use codes and zoning ordinances
- 5,000+ utilities implementing interconnection standards and net metering programs
- 50 states developing interconnection standards and net metering rules



Southeast
12,500,000 People

Midwest
5,000,000 People

47M TOTAL

Northeast
10,200,000 People

Southwest
20,500,000 People

Northwest
790,000 People

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Rooftop Solar Challenge Successes

Permitting

- 40% Faster
- 12% Cheaper

Overall Time Saved: One Week Per Install

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

Agenda

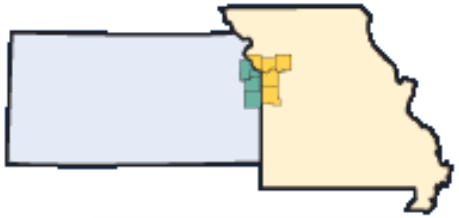
- Introductions
- Solar Ready KC – Rooftop Solar Challenge grantee
  - Background on organizing regional solar efforts
  - Regional Energy Efficiency and Conservation Strategic Framework
  - Solar Ready KC – Implementation strategies
    - Best management practices, discussion forums, resolution
  - Grant Partners perspectives

Presenters

- Mid-America Regional Council
  - Georgia Nesselrode, Director of Local Government Serv.
  - Beth Dawson, Senior Planner, Project Manager
- City of Kansas City, Missouri
  - Dennis Murphey, Chief Environmental Officer
- City of Olathe, Kansas
  - Susan Sherman, Assistant City Manager
- City of Lee's Summit, Missouri
  - Mark Dunning, Chief Building Official
- Industry Partner
  - Susan Brown, Principal, Brightergy Solar

Kansas City Metropolitan Region

- Two states
- Nine counties
- 119 cities
- 1.9 million people
- 4,400 square miles



MARC
Mid-America Regional Council

Regional Resources

- MARC and its regional partners have received $80 million (includes match) in Federal grants since 2009.
- Grant investments include funds from:

  DOE; HUD; DOT; EPA, USDA, and EDA.
- All have sustainability and/or energy in their guiding principles.
- Solar has been integrated in 5 out of 12 grant initiatives.

Background

- In 2009-2010, 14 local jurisdictions received Energy Efficiency and Conservation Block Grant (EECBG) funds totaling $14 million from the U.S. Department of Energy.
- In partnership with the MARC, 11 of those communities agreed to form the Regional Energy Efficiency and Conservation Strategy (REECS) initiative, contributing a portion of the grants to regional outcomes.

REECS Strategic Framework

1. *Lead by example by modeling innovative practices.*
2. *Adopt and implement updated strategies for codes and standards.*
3. *Implement education, outreach, public involvement strategies.*
4. *Assess, monitor, report the effectiveness of clean-energy strategies.*
5. *Create incentives for energy efficiency and conservation.*
6. *Link energy strategies with related sustainability efforts.*
7. *Establish effective partnerships among state, regional and local energy programs.*
8. *Promote emerging solutions and technologies to encourage market transformation.*

Major Outcomes of REECS

- Stronger energy codes - 20 local governments in region have adopted 2009 or 2012 building and energy codes (ICC & IECC) - 1.4 million in population coverage.
- 13 workshops with 1,050 participants; 450 regional constituents participated in a survey; 13,000 Green Idea Books were distributed; two 30-second commercials were created.
- Set the stage for the Solar Ready KC application and strategy.

MARC

MID-AMERICA REGIONAL COUNCIL

Solar Ready KC Partners

- Clay County, Missouri
- Johnson County, Kansas
- Kansas City, Missouri
- Lee's Summit, Missouri
- Olathe, Kansas
- Kansas City Power & Light

Strategy

- Research – Best Management Practices
- Education – Over 750 stakeholder attended educational sessions
- Financing – Traditional and non-traditional options identified and researched
- Advocacy – Educate state representatives on solar interconnection standards

Development Process

- Collaborative approach
- Tale of two states
- Series of presentations & forums
- Solar rooftop resolution

Solar Ready KC

http://www.marc.org/environment/energy/solar_ready_kc.html

Process Improvements

http://www.marc.org/environment/energy/solar_ready_kc.html

Planning Improvements

http://www.marc.org/environment/energy/solar_ready_kc.html

Finance Improvements

http://www.marc.org/environment/energy/solar_ready_kc.html

Solar Ready KC Outcomes

- Major improvements in SM3 scores – 36-120%
- A decrease in installed cost for solar – 11% small commercial – 27% residential
- Reduction in soft cost estimated at $.15/W (small commercial) and $.805 (residential)
- 5.3 MW increase in solar capacity
- 65% metro population pledged to pursue BMPs
- PACE feasibility study and implementation plan

To learn more about the Solar Best Management Practices, please visit:

http://www.marc.org/environment/energy/solar_ready_kc.html

Grant Partners Perspectives

- City of Kansas City, Missouri
- City of Olathe, Kansas
- City of Lee's Summit, Missouri
- Brightergy Solar, Inc.

Kansas City, Missouri – Solar Strategy

- 80 Rooftop solar panel systems of 25 kW each to be installed on city buildings.
- Expected production of 2.6 million kWh of electricity annually.
- 20-year operating lease & solar service agreement at a fixed annual cost.
- Cost for solar-generated electricity will be less than cost to purchase from the grid.

Kansas City, Missouri – Solar Strategy

- Complements 3 existing 25 kW systems on rooftops of water services buildings.
- Systems are significant part of implementing KCMO Climate Protection Plan.
- Expected to reduce GHG emissions from municipal operations by 2,200 Metric Tons/Yr.
- Will make KCMO one of the top cities in the U.S. in terms of the number of rooftop solar systems on City buildings.

City of Olathe, Kansas

OLATHE
KANSAS

City of Lee's Summit, Missouri

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Brightergy

Brightergy

CLEAN ENERGY. CLEAR CHOICE.

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