midwest renewable energy association

The Power Pack:

Developing Solar Customers in New Markets

Presentation by Doug Stingle

4/8/14 at Solar Powering Illinois Conference

MREA Overview

- RE Education and Demonstration
- 25th Annual Energy Fair (June 20-22)
- Net Zero Campus (I think)
- Accredited Certificate Training
- Midwest Solar Training Network
- Grow Solar Partnership
- Solar Powering Conference Series
- Offices in Custer and Milwaukee, WI

Source: www.midwestrenew.org, www.midwestsolartraining.org www.growsolar.org

Midwest Market Characteristics

- 3% of national installed capacity
- Of that, only 2% is residential
- Fastest growing market (%) in the US
- Relatively low utility rates but often good ‘time of use’ rates
- Diverse utility and policy landscape
- Dominated by rural and ‘rural hub’ communities
- Strong, traditional social networks
- Diverse small business landscape
- Low understanding of the practical applications of solar in residential and commercial space

Undeveloped Market: The PV Customer

Actual

- Has heard of solar
- Generally thinks it's a good idea (if a bit expensive)
- Misunderstands potential
- Confused by design/install process
- Does not have information about finance options

Desired

- Has realistic goals for solar for their home/business
- Maintains a healthy skepticism but trusts the technology
- Manages information about finance options
- Weighs options with multiple contractors

Undeveloped Market: The PV Contractor

Actual

- Costly customer acquisition
- Incentives are fundamental to business model
- Often chasing new business opportunities
- Caught in severe cycle of price competition
- Frustrated with margins, complexities, uncertainties

Desired

- Simple, transparent business model
- Protected from incentive uncertainty
- Knows the customer
- Manages data to understand market
- Collaborates with local industry stakeholders

The Power Pack

Power Pack Partners

- Local Contractors
- Community Partners
- Supply Chain Partners
- Local Lenders
- Community Colleges
- Outreach Partners

Power Pack Providers

- ICC Certified Installers
- IL office and primary service territory
- Training Standard:
  - NABCEP, UL, or graduate of DOL apprentice/accredited training with 2 documented installations
- 5-year labor warranty
- 3 customer references
- Cost competitive

CONTINENTAL
ENERGY SOLUTIONS
A DIVISION OF CONTINENTAL ELECTRICAL CONSTRUCTION COMPANY

ECO SOLAR

WindSolarUSA
CLEAN ENERGY SOLUTIONS

The Power Hour

- Delivered by MREA/KCC
- Hosted by community partner
- Free and open to public
- Providers requested to attend
- Content includes:
  - PV market trends and system basics
  - Performance expectations and cases
  - Basic system economics and finance
  - General system siting requirements
  - Navigating the design/install process
  - Take-home resources

Workforce Training

Site Assessment
Certificate Program

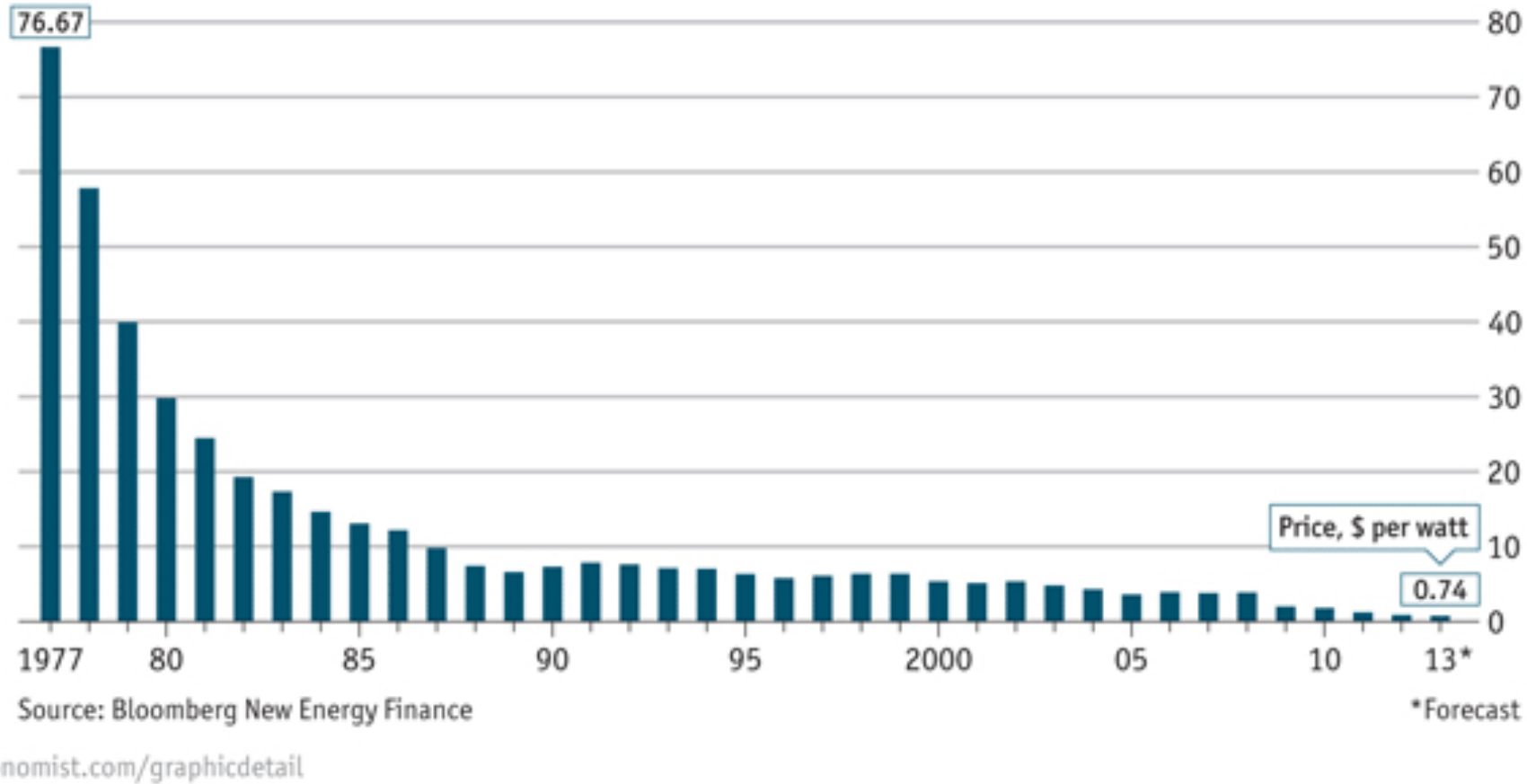
brought to you by the mrea
midwest renewable energy association

KCC
Kankakee Community College

Power Pack Objectives

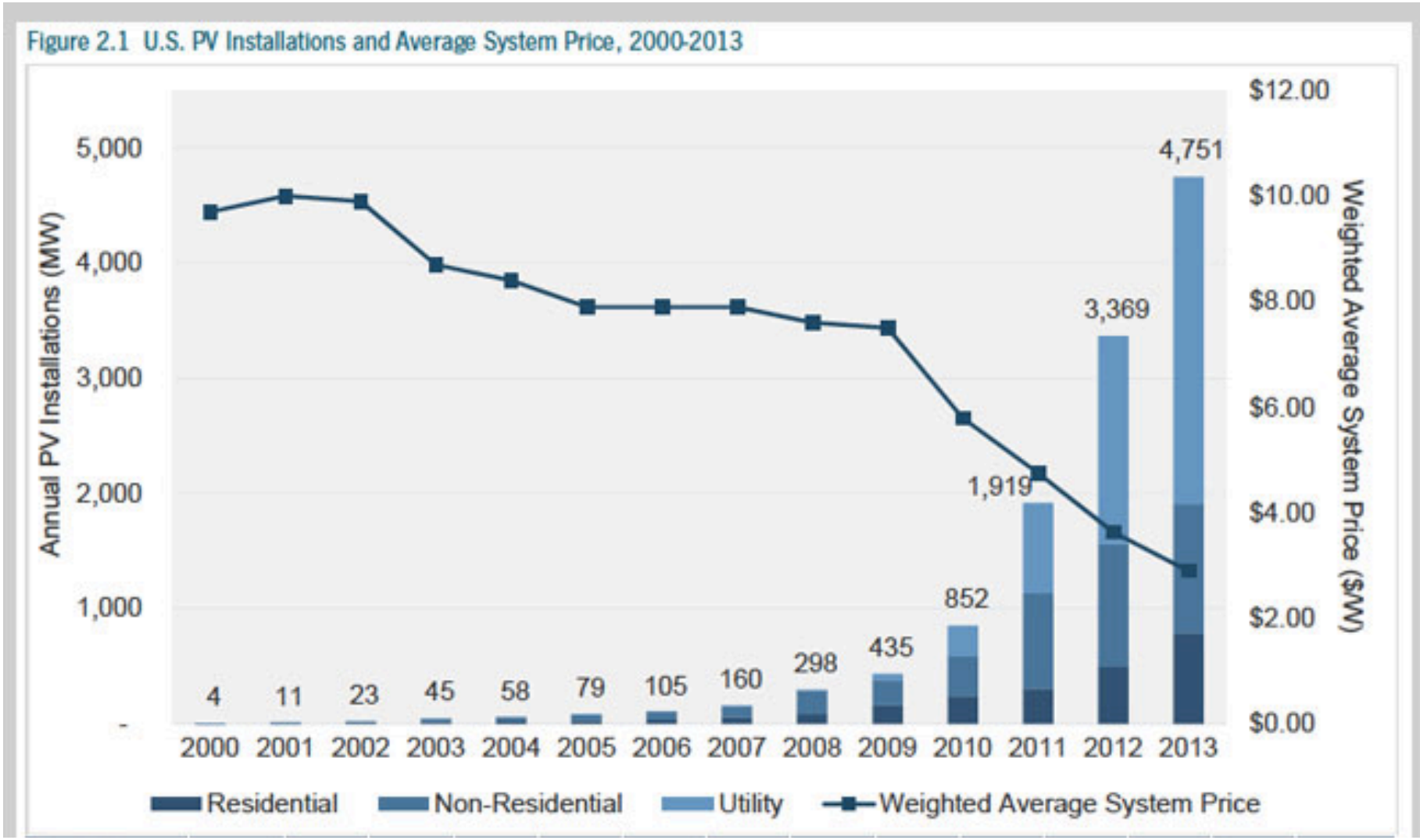
- Increase local solar literacy
- Generate and qualify customers
- Support local contractors
- Encourage competition
- Maintain standards
- Build community support
- Develop the local workforce
- Facilitate model projects
- Replicate success

Why now?



Sources: Bloomberg New Energy Finanace

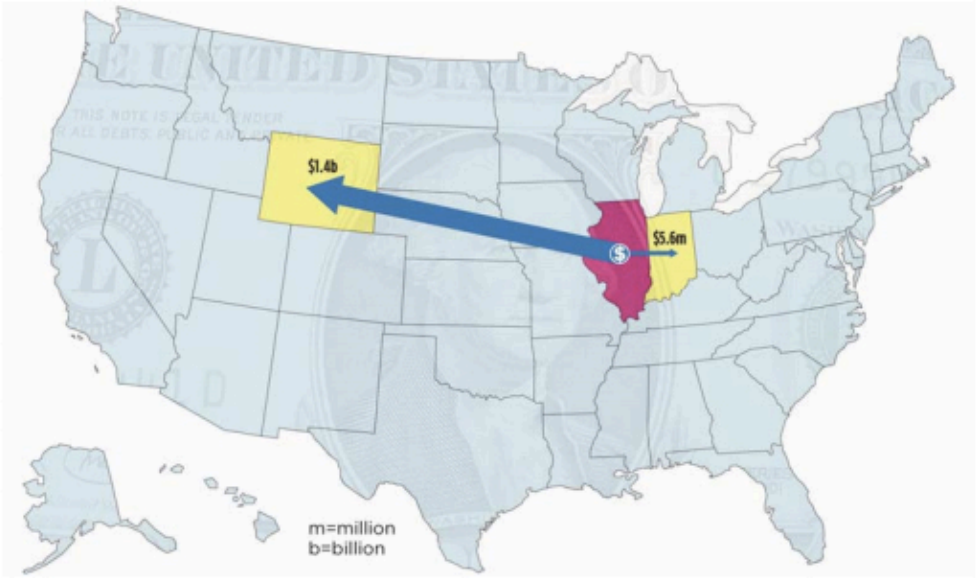
Why now?



Sources: Solar Energy Industries Association. 2014. US Solar Market Insight: 2013 Year in Review

Why now?

FIGURE 1. **$1.45 Billion Leaving Illinois to Pay for Imported Coal**



The $1.45 billion spent to import coal is a drain on Illinois' economy, which relies on coal for 41 percent of its power generation. Investments in homegrown renewable energy and energy efficiency can affordably help redirect funds into local economic development—funds that would otherwise leave the state.

Note: Based on 2012 data. Not all these funds will necessarily land in the state where the mining occurs. Mine owners may divert the profits to parent companies in other locations, for example. Amounts also include the cost of transportation.

Source: Union of Concerned Scientists

Why now?

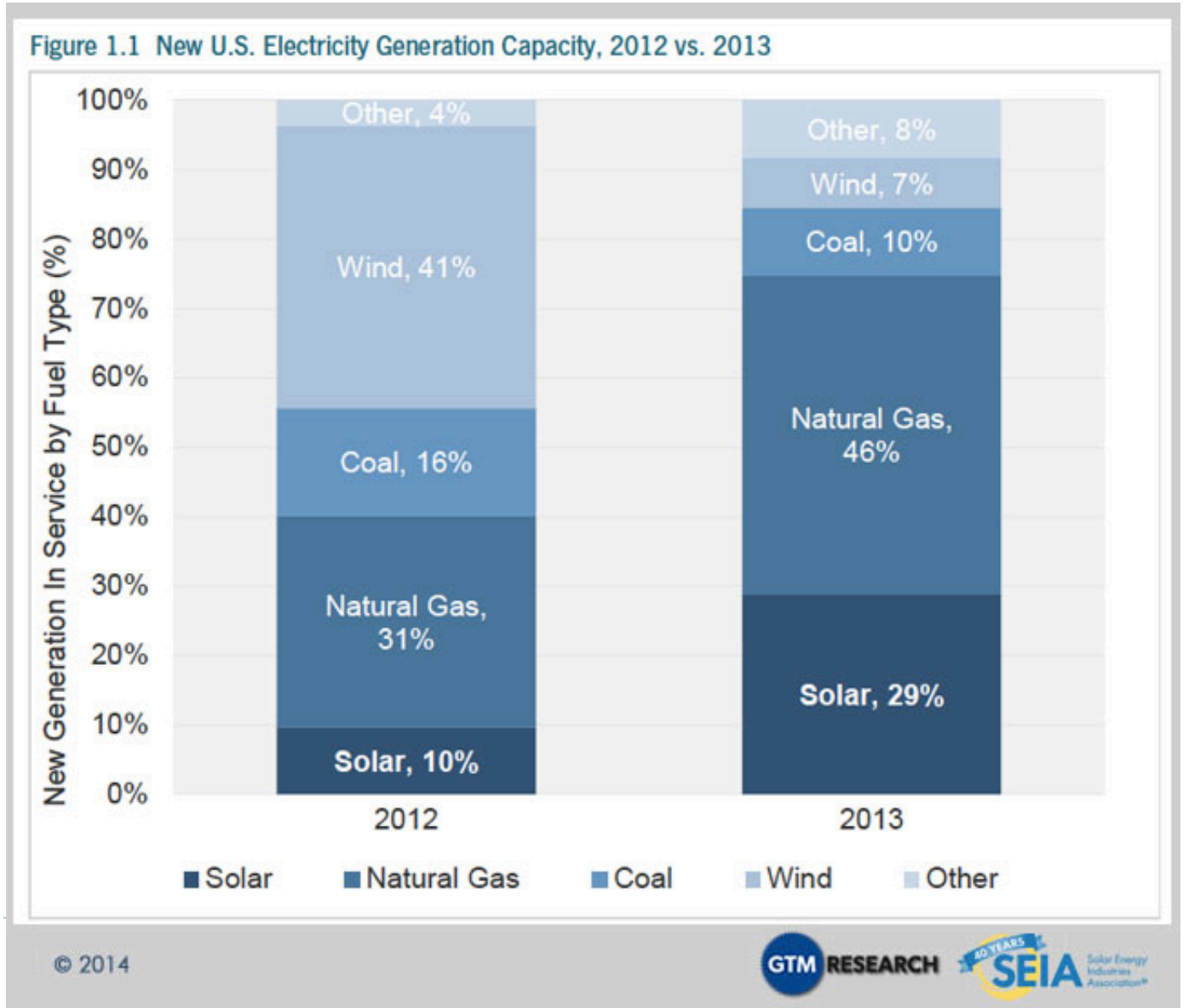


Figure 1.1 New U.S. Electricity Generation Capacity, 2012 vs. 2013
New Generation In Service by Fuel Type (%)
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Other, 4%
Wind, 41%
Coal, 16%
Natural Gas, 31%
Solar, 10%
Other, 8%
Wind, 7%
Coal, 10%
Natural Gas, 46%
Solar, 29%
2012
2013
Solar
Natural Gas
Coal
Wind
Other
© 2014
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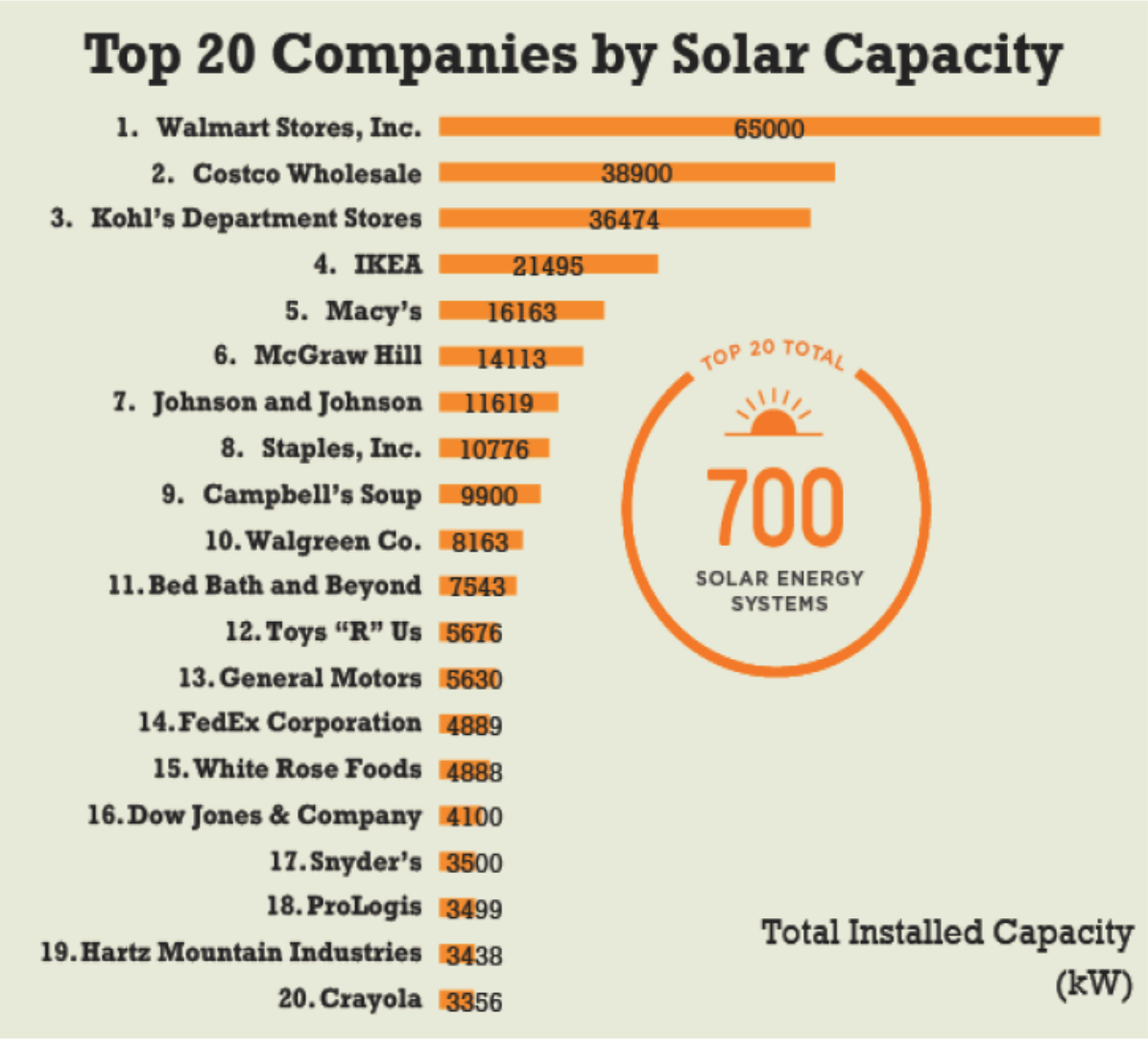
40 YEARS SEIA Solar Energy Industries Association

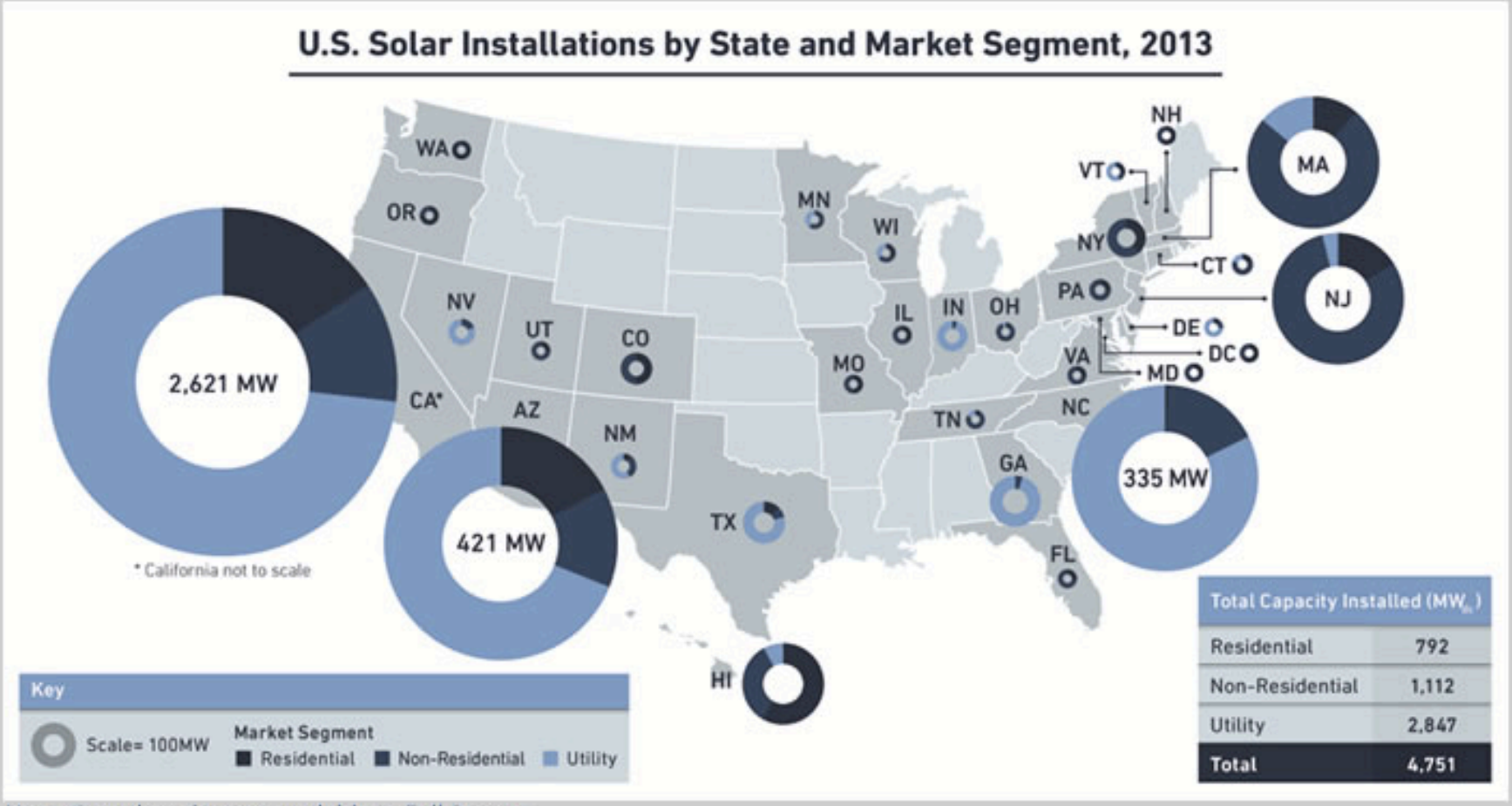
Why now?



Sources: Solar Energy Industries Association. 2013. Solar Means Business.

Why now?

Figure 2.2 2013 U.S. PV Installation Map



Note: Complete dataset available in Full Report

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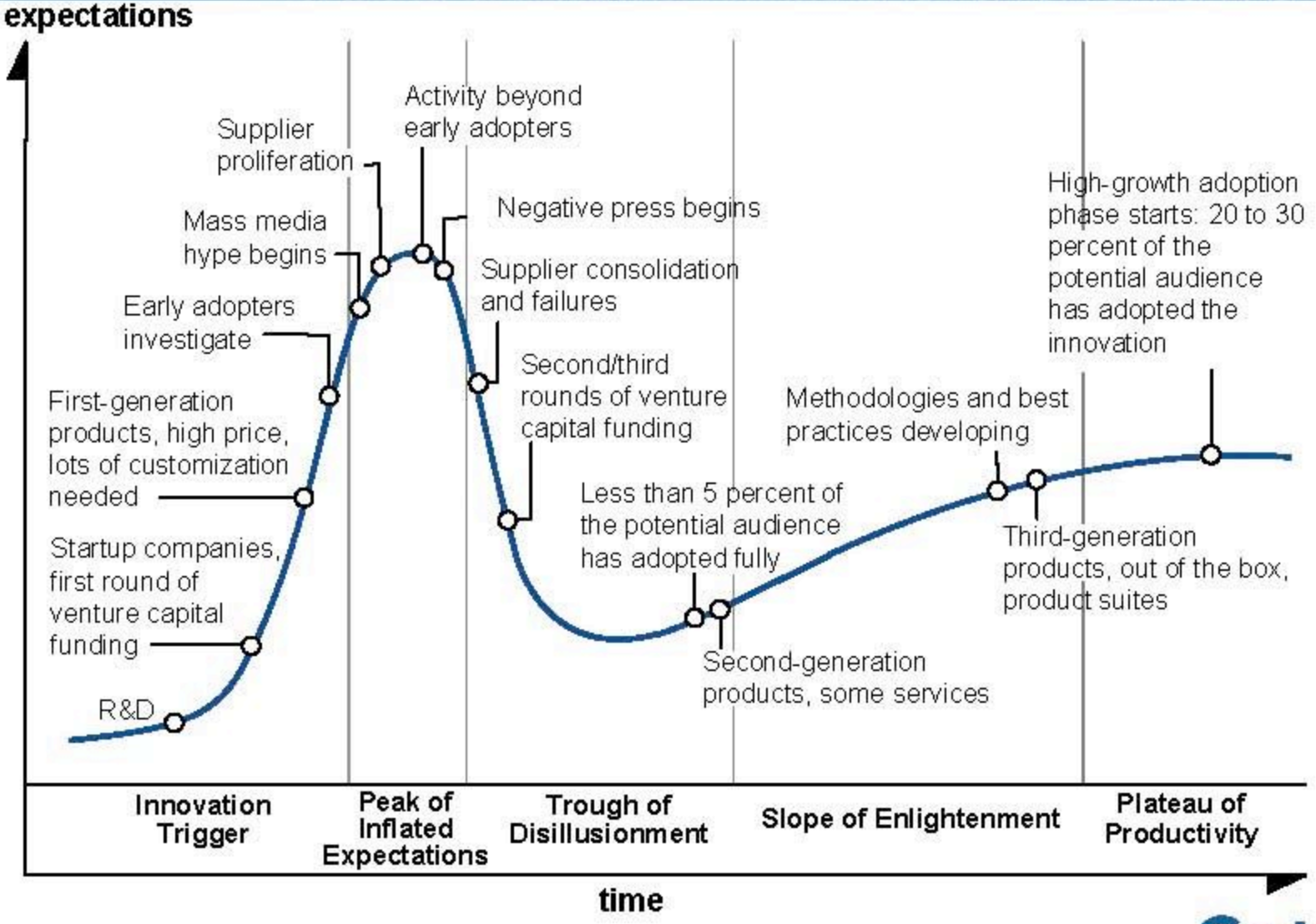
40 YEARS SEIA Solar Energy Industries Association

Hype Cycle Indicators



Gartner

Why Illinois?

1. Dominated by a community-centered rural geography
2. Local manufacturing and solid support systems
3. PV currently an un-matched investment opportunity
4. Strong potential to positively influence neighboring states

The Long Game

- Build local market symmetry
- Grow community leadership density
- Prepare for a local energy future

SOLAR POWERING ILLINOIS

Street Team

- Power Hour Street teams help expand market in IL
- Promote solar as part of our clean energy future
- Bring solar to your community

Street Team

- Get resources from MREA
- Deliver Power Hour presentations to your community
- Continued resources and training from MREA

Midwest Renewable Energy Association

www.midwestrenew.org

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