

Solar Integration: Best Practices in Streamlining Jurisdictional Approvals

Jeff Smith

Principal, West Monroe Partners

Team Lead, Chicago Region's Solar Market
Transformation Team



Presentation Outline

- Recent solar industry trends
- Introduction to Chicago's Solar Team
- Importance/benefits of streamlining jurisdiction approvals
- Chicago's solar next steps

In past five years, solar PV costs have been cut in half, while the amount of annual installations has risen six fold

US System Costs: Residential solar photovoltaic (“PV”) system costs have decreased from \$10/W to \$5/W over the last 5 years

- Most of this price reduction is attributed to the decreasing costs of hardware components (cells, panels, inverters)

US Systems Growth: The annual growth of solar PV systems jumped from about 10,000 in 2006 to over 60,000 in 2011

- California processed ~17,000 solar PV applications in 2011 (28%)
- New Jersey processed ~10,000 solar PV applications in 2011 (17%)

How can the US continue to drive down system costs and accommodate rapid growth?

The solar industry is increasingly focused on reducing non-hardware balance of system costs

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

-Dr. Steven Chu, Secretary of Energy



- Recently, the SunShot Initiative released a funding opportunity called the “Rooftop Solar Challenge to Induce Market Transformation” streamlined and standardized jurisdictional approval processes in order to drive down the Balance of System costs

About the SunShot Initiative:

- Hosted by the US Department of Energy (DOE), and the stated goal to reduce the installed cost of solar by 75%, reducing utility-scale solar PV to a \$1/W installed cost by 2020 (\$1.50/W for residential rooftop PV)
- Reaching these cost goals would make unsubsidized solar energy cost-competitive with other forms of electricity

Chicago's Solar Team: Objectives and Focus Areas

Chicago's Solar Market Transformation Team ("Solar Team"):

- Sponsored through the Mayor's office, working with multiple City, industry, utility, non-profit, and institutional stakeholders
- *Origination:* The City of Chicago, along with 21 other teams, received Phase 1 funding from the DOE to induce market growth of residential and commercial-scale rooftop PV systems

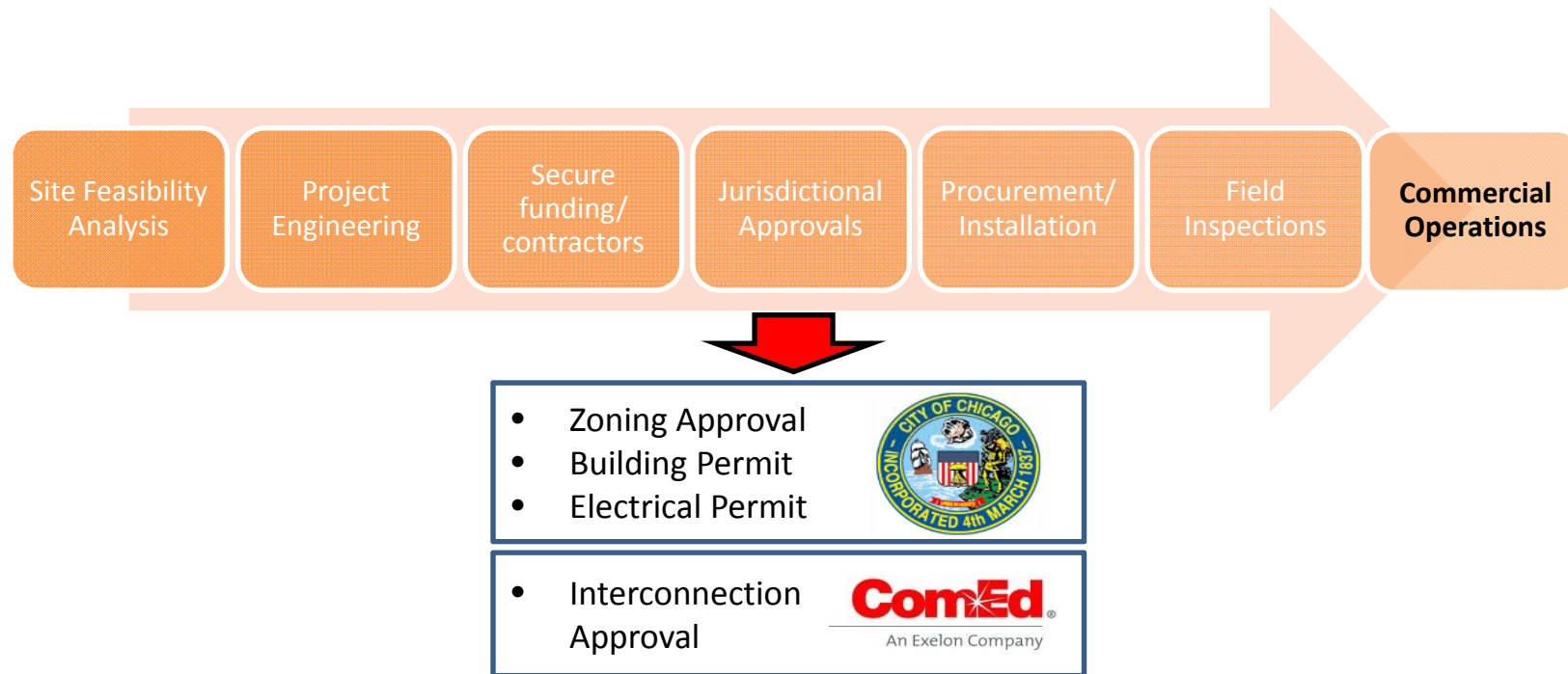
Solar Team's Objectives:

- Transform the Chicago region into one of the nation's leading solar markets
- Reduce the time and costs of reviewing and approving solar applications
- Maintain the integrity and safety of rooftop solar installations

Solar Team's Focus Areas:

- Permitting, Zoning, Interconnection, Collaboration/Education, and Finance

The role of Authorities Having Jurisdiction (“AHJs”) in solar project development



Common ‘pain points’:

	Pre-submittal Education	Application Submission	Application Approval
Applicants (installers, system owners)	Lack of education on process	Manual / Paper intensive document transfer	Lack of transparency for review time/outcome
AHJs (distribution utility, municipality)	New entrants require on-boarding support	Incomplete/inaccurate/illegible applications received	Workflow management amongst depts.

How can AHJs help reduce the time and costs of approving distributed solar PV projects?

- **Permitting:** Significantly reduce embedded costs in solar permitting by establishing flat fees, expedited permitting processes, electronic submission infrastructure, and code official training
- **Zoning:** Establish a formalized solar zoning policy and allow for solar systems to satisfy “green” requirements
- **Interconnection:** Enhance the interconnection process with an electronic platform that provides increased transparency for applicants and scalable processing
- **Education:** Provide online navigation and assistance tools for residents and developers
- **Collaboration:** Develop collaborative approach with regional stakeholders to adopt standard approval requirements and processes

Stakeholder Benefits of Streamlining and Standardizing Solar Approvals

Municipalities:

- Business investment
- Job creation
- Sustainable communities development

Electric Utilities:

- Regulatory compliance
- Processing efficiency
- Ancillary operational benefits

Solar Developers:

- Consistent expectations
- Predictable costs/timing
- Enhanced communication with system owners

Chicago's Solar Team: What's next?

- Leverage solar market transformation activities to target investment and growth
- Share solar Best Practices and Transition Strategies to AHJs in the Chicago region and broader Midwest
- Prepare Chicago for its role as host city for Solar Power International 2013

Questions?



Jeff Smith

Email: jsmith@westmonroepartners.com

Business Phone: 312.846.9949

