



# **Stakeholder Advisory Group**

**Second Meeting**

**Oct 29, 2015**



# Agenda

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- **Introduction & Progress to Date:** *Deborah Stone, Cook County*
- **Community Solar & the Grid:** *Manuel Avendano, ComEd*
- **Working Group Reports**
  - **Business Models:** *Paul Augustine, West Monroe Partners*
  - **Policy:** *Sarah Wochos & Brad Klein, Environmental Law & Policy Center*
  - **Outreach:** *Antonia Ornelas, Elevate Energy*
- **Site Discovery & Pilot Development:** *Vito Greco, Elevate Energy*
- **Next Steps:** *Deborah Stone, Cook County*



# U.S. Department of Energy SunShot Initiative

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- SunShot Initiative is a national collaborative effort to make solar energy cost-competitive with other forms of electricity by the end of the decade
- Solar Market Pathways Program supports 15 projects that are advancing solar deployment across the United States
- We are working collaboratively with other awardees across the nation and will share lessons learned



# Introduction: Cook County Community Solar Project (Dec. 2015 to June 2017)

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- Goal: identify and establish **models** for community solar in Cook County.
- Address **barriers** to implementing community solar in Cook County and provide options for resolution.
- Engage a diverse group of **stakeholders** to inform the analysis and deliverables.
- Conduct analysis on the **opportunity, best practices, policies and impact** of community solar.
- <http://www.cookcountyil.gov/environmental-control-2/solar-energy/>



# Steering Committee

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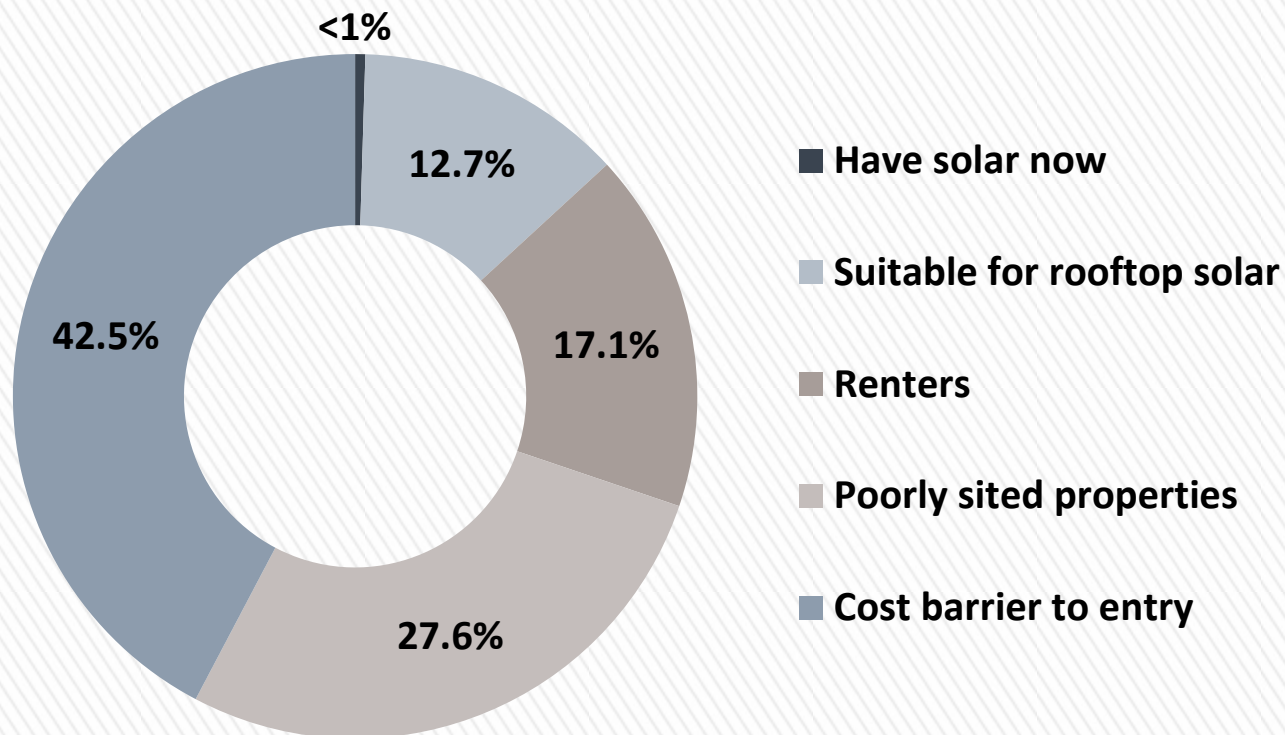
- **Cook County** – Overall Project Oversight and Direction
- **City of Chicago** – Steering Committee Member, Advisory Support
- **Commonwealth Edison** – Implementation Feasibility and Energy Market Expertise
- **Elevate Energy** – Program Management, Stakeholder Engagement, and Local Solar Market Analysis
- **West Monroe Partners** – Technical Expertise and Economic Modeling
- **Environmental Law & Policy Center** – Regulatory Expertise





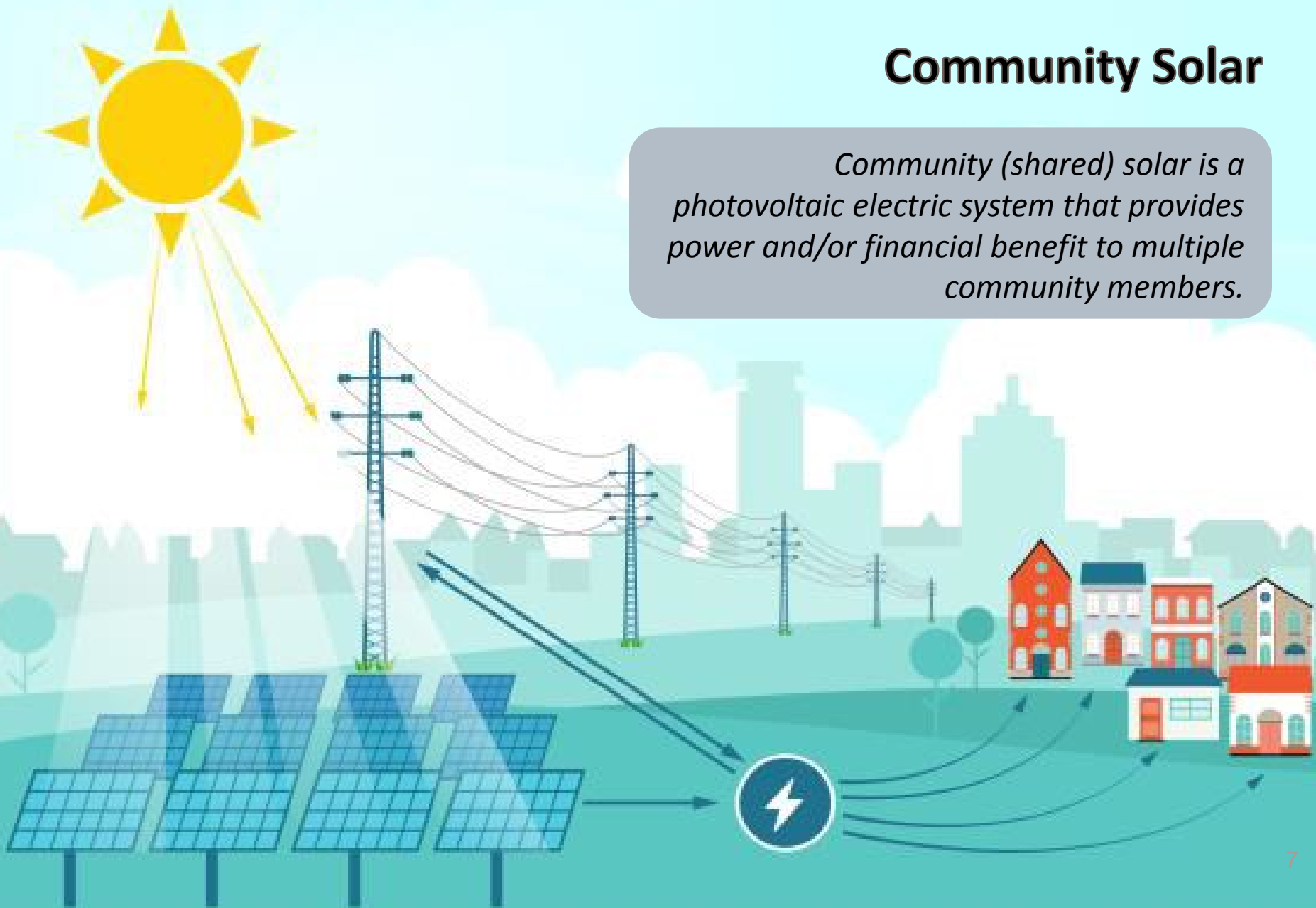
# Despite Growth in Installations and Falling Costs, Access to Solar Is Still Very Low

## Household suitability for solar



# Community Solar

*Community (shared) solar is a photovoltaic electric system that provides power and/or financial benefit to multiple community members.*



# Community Solar Provides Access & Impact

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- Expands access to solar
- Lowers cost of entry
- Provides economies of scale to communities
- Can strengthen the grid and mitigate peak demand
- Supports Renewable Portfolio Standards for utilities
- Provides a return on investment
- Builds community



# Progress to Date

Task  
1

Opportunity  
Assessment

Quantify shared  
solar market  
potential:

- ✓ Site characteristics
- ✓ Subscriber type
- ✓ Ownership model

Task  
2

Stakeholder  
Engagement

Facilitate  
stakeholder  
collaboration:

- ✓ Stakeholder Advisory Group
- ✓ Working groups
- ✓ Analytical work-sessions

Task  
3

Policy  
Research

Address policy  
and market  
barriers:

- ✓ Best practices
  - Rate structure
  - Bill crediting
  - Economic & Policy Barriers Resolutions

Task  
4

Pilot  
Development

Pilots:

- ✓ Business models Benefits assessment
  - REI launch
  - Site assessment and selection
  - Financial modelling

Task  
5

Impact  
Analysis

Impact Analysis:

- ✓ Policy frameworks
  - Demonstration pilot frameworks
  - Economic impacts



# Task I: Opportunity Assessment

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- ✓ Analyzed all rooftops in Chicago and all vacant land in Cook County
- ✓ 67,122 vacant properties in Cook County analyzed.
  - **3,038 suitable** for community solar.
- ✓ 820,152 rooftops analyzed in Chicago.
  - **44,916 suitable** for community solar.
- ✓ More than **9,000 megawatts of site capacity** available for community solar projects in Cook County – nearly enough to offset all of Cook County’s residential electricity use.



# Opportunity Assessment: Vacant Properties

**Total Vacant Properties  
in Cook County:**

**67,122**

**Adequate  
area of available space:**

**6,679**

**Close to infrastructure  
(roads and transmission):**

**6,162**

**Adequate solar  
potential (not in shade):**

**4,977**

**Adequate  
surface (topography and obstructions):**

**3,038**



# Opportunity Assessment: Rooftops (Chicago only)

Total Rooftops in Chicago:

820,152

With adequate area of available space:

417,241

Close to necessary infrastructure:

417,241

Adequate solar potential (not in shade):

65,632

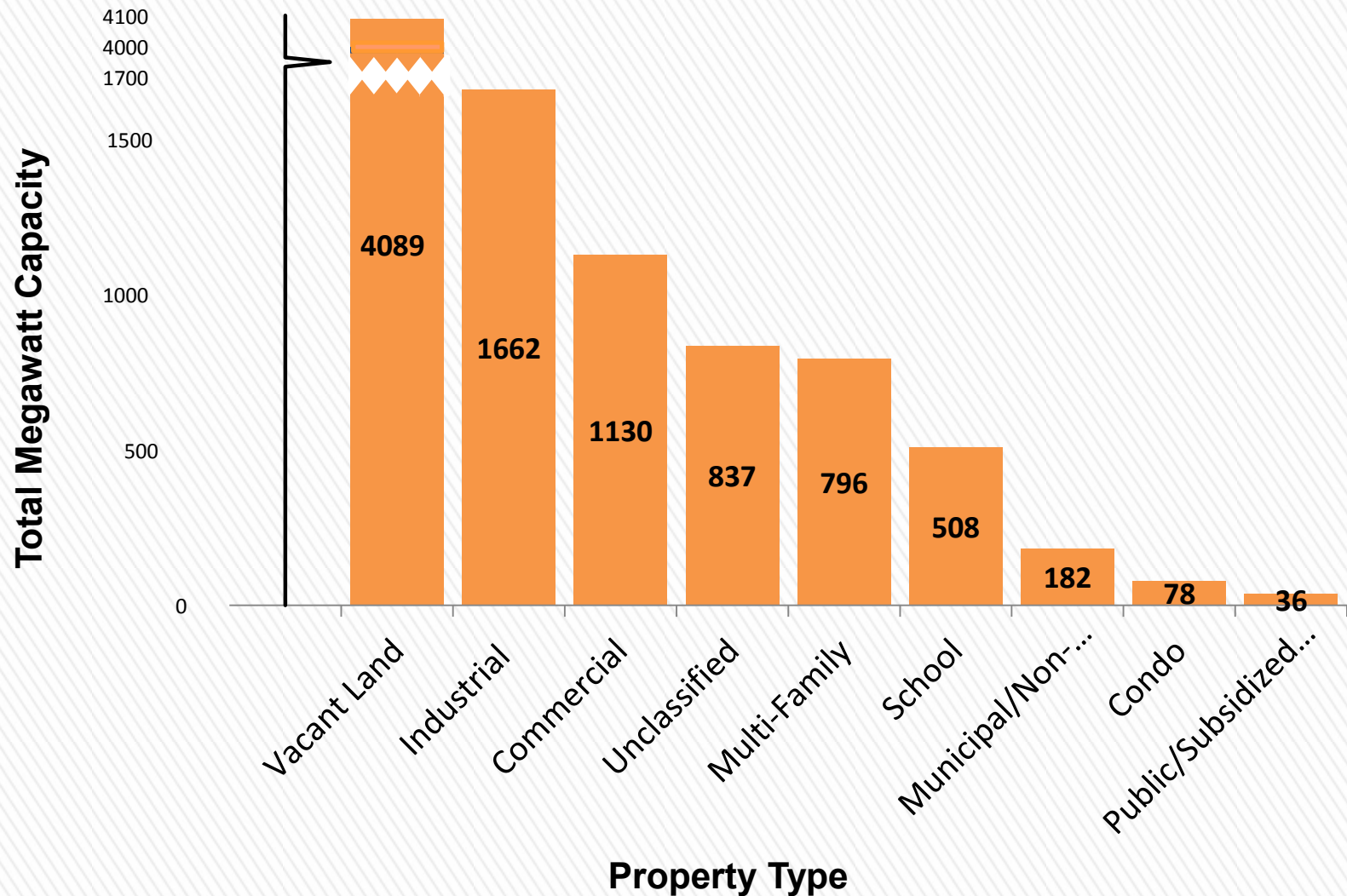
Suitable surface (topography and obstructions):

44,996



*Number of suitable rooftops will be significantly larger adding Suburban Cook County.*

# Opportunity Assessment: Capacity by Type



## Task 2: Stakeholder Engagement

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- ✓ More than 180 individuals across 100 organizations invited.

Community Development Organizations

Government Agencies

Colleges & Universities

Real Estate Development & Management

Solar Contractors & Developers

Legal & Consultant Organizations

Nonprofits & Community Organizations

Foundations

Utilities & Energy Services Companies

Manufacturing Organizations

- ✓ Stakeholder Advisory Group Meetings in March and October.
- ✓ Three working groups (Business Models, Policy and Outreach) met from April through June.





## Task 3: Policy Research

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- ✓ National Best Practices analysis was delivered in June.
  - Business models, program mechanics, policy and case studies.
- ✓ Work sessions with ComEd are underway to analyze potential rate structures.
- ✓ Currently engaging ComEd Billing and Technology teams to analyze bill crediting options.
- ✓ Policy frameworks have been developed by the Policy Working Group.
  - All of these analyses will be delivered in a Local Economic and Policy Barriers Resolutions analysis in November.



# National Best Practices Conclusions

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**Community solar subscribers may derive value in a number of ways:**

- » Offset electricity usage
- » Transferability
- » Return on Investment
- » Hedge against rising electricity costs
- » Community development

**National/federal/local policies are critical to the viability of community solar. These policies include:**

- » Incentives (tax incentives and utility incentives)
- » Net Metering and Virtual Net Energy Metering
- » Renewable Portfolio Standards
- » Feed-in Tariffs



# National Best Practices Conclusions

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## Current State of Policy:

- Net metering exists, but utilities are not required to offer it virtually
- ICC Docket 15-0156 concerning a Community Solar Pilot is pending dismissal
- State clean energy legislation is on hold until budget issues are resolved
- The IPA is conducting a one-time solar procurement to acquire SRECs from new PV systems

**Best business models provide the greatest value to subscribers and take advantage of the greatest number of incentives**

## Task 4: Pilot Selection & Analysis

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- ✓ Business models and system characteristics were analyzed and categorized for Cook County.
- ✓ A Benefits Assessment rubric was developed to measure the effectiveness of each business model or pilot.
- A Site Discovery Request For Expression of Interest (REI) will be launch on November 1, 2015.
- Sites submitted will be screened and analyzed through June of 2016 for solar suitability, diversity and grid impact.
- Final demonstration sites will be selected by June 2016.
- Financial modelling and demonstration pilot technical feasibility will be conducted Q3 and Q4 of 2016.



## Task 5: Impact Analysis

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- ✓ Policy frameworks were developed by the Policy working group.
- Demonstration pilot framework will be developed during site selection in Q1 and Q2 of 2016.
- Final economic impact analysis will be conducted from June of 2016 through May of 2017.

