Long Island Renewable Energy Roadmap

Dr. Jessica Price

The Nature Conservancy

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The Good News

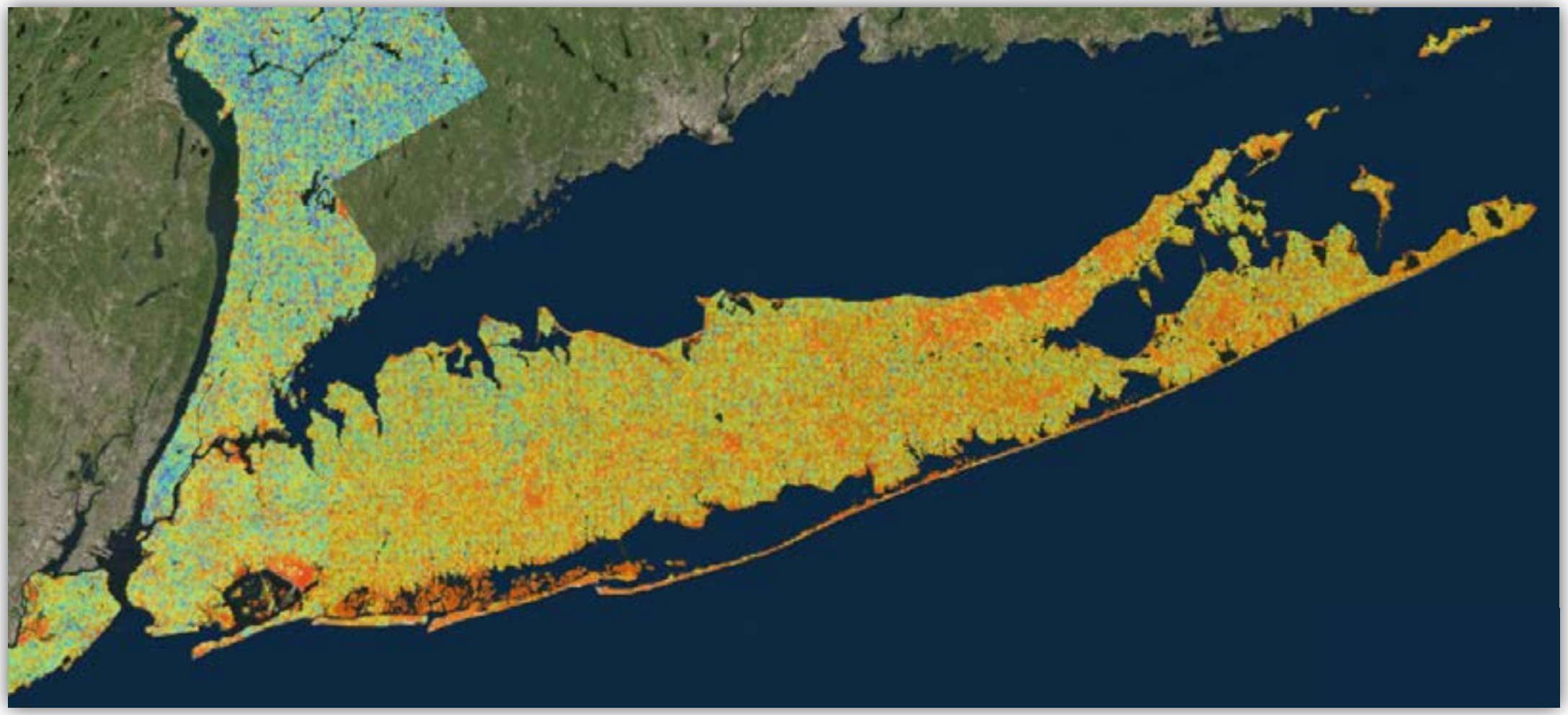
NYS Renewable Energy Standard

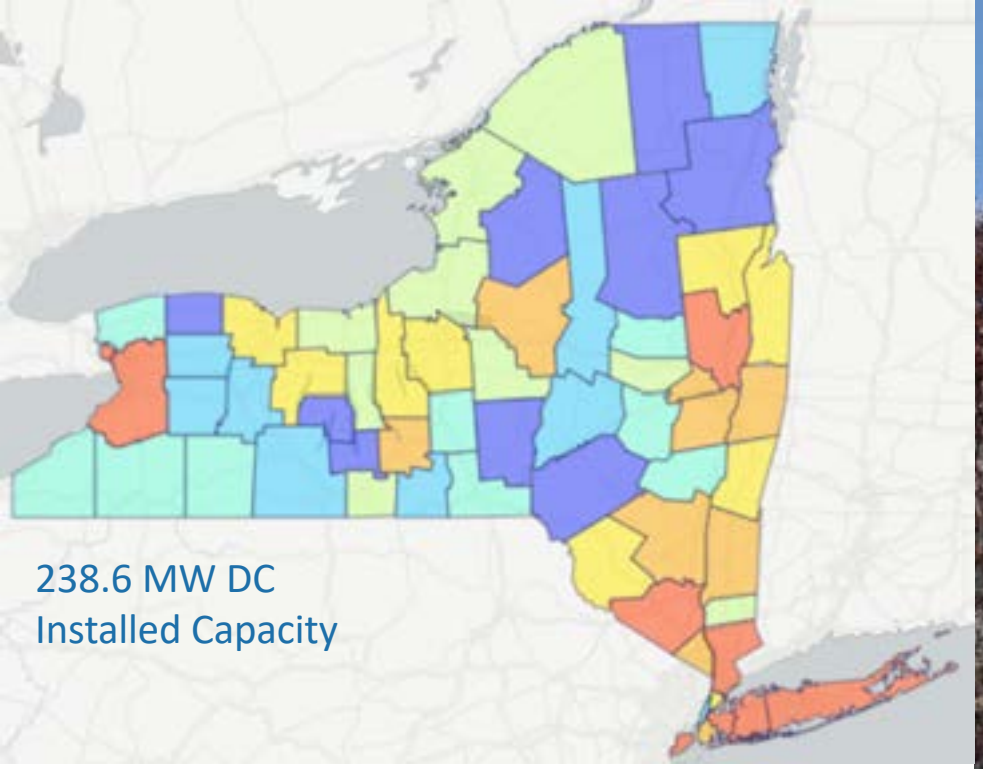
50% x 2030

80% x 2050

94% of NY’ers support using more solar power

Why Long Island?



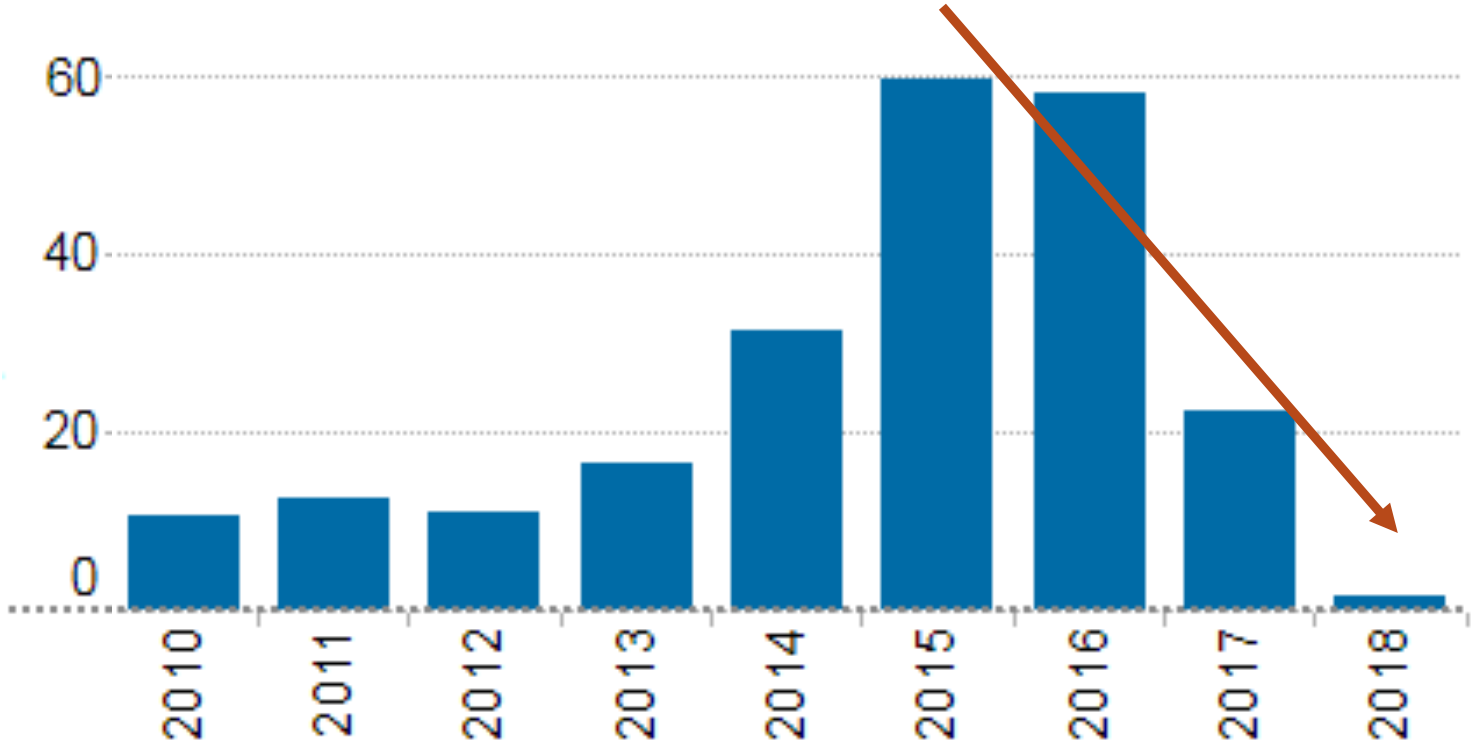


81% of installed capacity is residential rooftop solar

- Successful utility and gov incentives
- Successful marketing

Solar installations have been slowing

Yearly installed solar generation on Long Island 2010-2018 (MW DC)



Solar Electric Programs Reported by NYSERDA

Siting conflicts are increasing

Project Goal

Advance the pace of solar installations on Long Island by **reducing siting conflicts and lowering the barriers to installations in low-impact sites** like parking lots, large rooftops, and previously disturbed sites.

So what's the plan?

1. Work collaboratively.
2. Apply spatial analysis to identify low-impact sites for rooftop, parking lot, and ground-mounted solar on disturbed lands
3. Use economic analysis to summarize and compare cost of each type
4. Use social science research to understand community perceptions of and preferences for solar generation
5. Create shared solutions

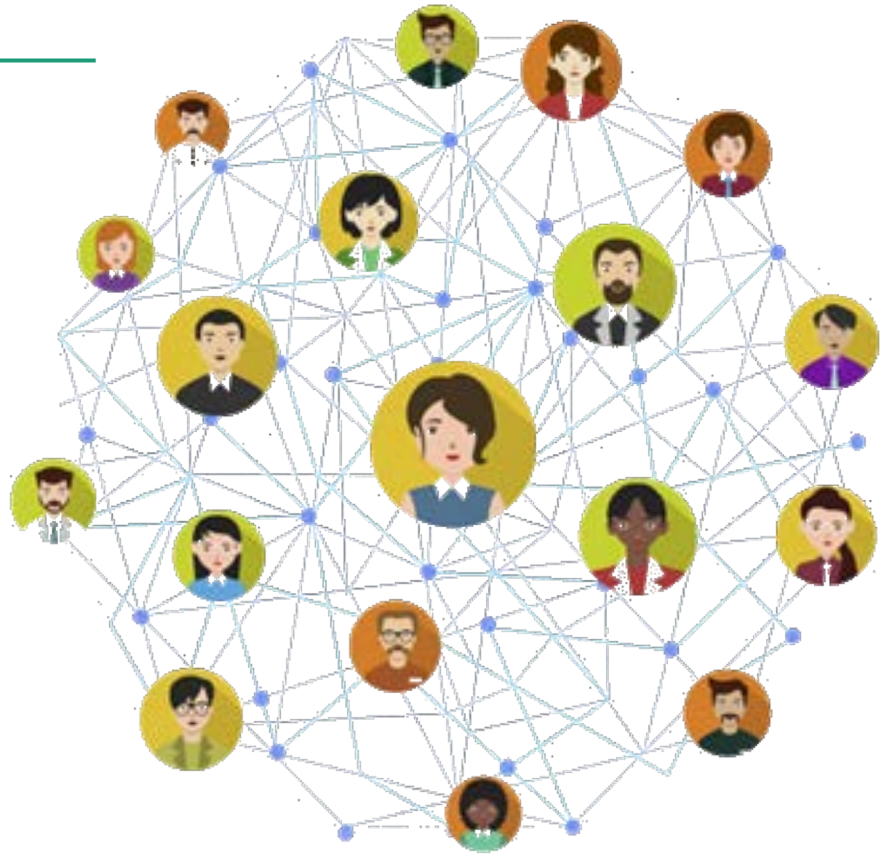
1. Work Collaboratively

The Consortium

- Utility – LIPA & PSEG
- Industry – LISEIA
- Policy makers – state, county, & town
- Local enviro & community orgs
- Academic partners

Consortium Roles

1. Inform goals, process, & deliverables
2. Provide subject-matter expertise
3. Develop shared recommendations
4. Partner to implement recommendations
5. Communicate with their peers



2. Spatial Analysis

For each installation type:

- Define shared siting requirements
- Map suitable sites
- Estimate total max capacity (MW)
- Overlay with current grid capacity

Why? To help set priorities.

- Where new projects can go online now
- Where grid modifications may be needed
- Which types of generation have the greatest potential in specific geographies

3. Economic Analysis

For each type of installation, use regional data to estimate:

- Development costs per MW
- Cost of installing the maximum generation capacity
- Potential returns given the cost of electricity
- Cost breakdown (panels, inverter, other materials, site prep, permitting, etc)

Why?

- Understand which installations are most economically feasible
- Identify targets for potential cost-reducing strategies

4. Social Science Research

Collect data to better understand:

- which types LI'ers are most likely to support in their community
- which messages about solar energy are perceived most positively
- which incentives, tax policies, or business models are preferable
- the spatial relationships of the above community preferences

Methods

- Public opinion polling, focus groups, one-on-one interviews

Why?

- Informs strategy and policy recommendations
- Enables strategic communication and advocacy tailored to local attitudes

5. Create Shared Solutions

- Cohesive set of recommendations for all stakeholders
- Steer solar energy development to low-impact, low-conflict sites through actions by all stakeholder groups
- Create the necessary buy-in for increasing solar development in the lowest impact places
- Work in concert to leverage individual stakeholder actions to achieve greater cumulative success

Success means

- Recommendations implemented on LI
- Increased pace of large-scale solar installations in low-impact sites
- Minimized impacts of energy on natural areas
- Improved collaboration among stakeholders
- Solutions applied in similar geographies

Recommendations

- Identify and understand critical barriers
- Go slow to go fast
  - Build support among stakeholders
  - Engage critics
  - Listen to all perspectives
  - Create value for diverse groups
- Be flexible
- Take an interdisciplinary approach
  - Borrow expertise!
- Sustained engagement

Thank you!

The Nature Conservancy

Amanda Lefton, Elizabeth Codner-Smith, Stephen Lloyd, Karen Leu, Kevin McDonald, Nels Johnson, Cara Lee

Defenders of Wildlife

Aimee Delach, Joy Page, Rupak Thapaliya, Mark Salvo

The Doris Duke Charitable Foundation

Questions and Suggestions?

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