EPA

RE-POWERING AMERICA'S LAND INITIATIVE

Unlocking Brightfields Potential: State Programs to Encourage Renewable Energy Siting on Contaminated Lands

Presentation by Lora Strine,
Team Leader, RE-Powering America's Land Initiative

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Today's Speakers and Panelists

Gina Bellato
Solar Programs Manager
Massachusetts Dept. of Energy Resources (DOER)

Emily Chessin
Senior Development Associate
Build-Ready Program
New York State Energy Research & Development Authority (NYSERDA)

Steve Myers
Supervisor, Clean Energy Section, Climate Change, Clean Energy & Sustainability Element
New Jersey Dept. of Environmental Protection (NJDEP)

Lora Strine
Team Leader
EPA RE-Powering America's Land Initiative

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About RE-Powering America's Land Initiative

Why Renewables on Potentially Contaminated Sites?

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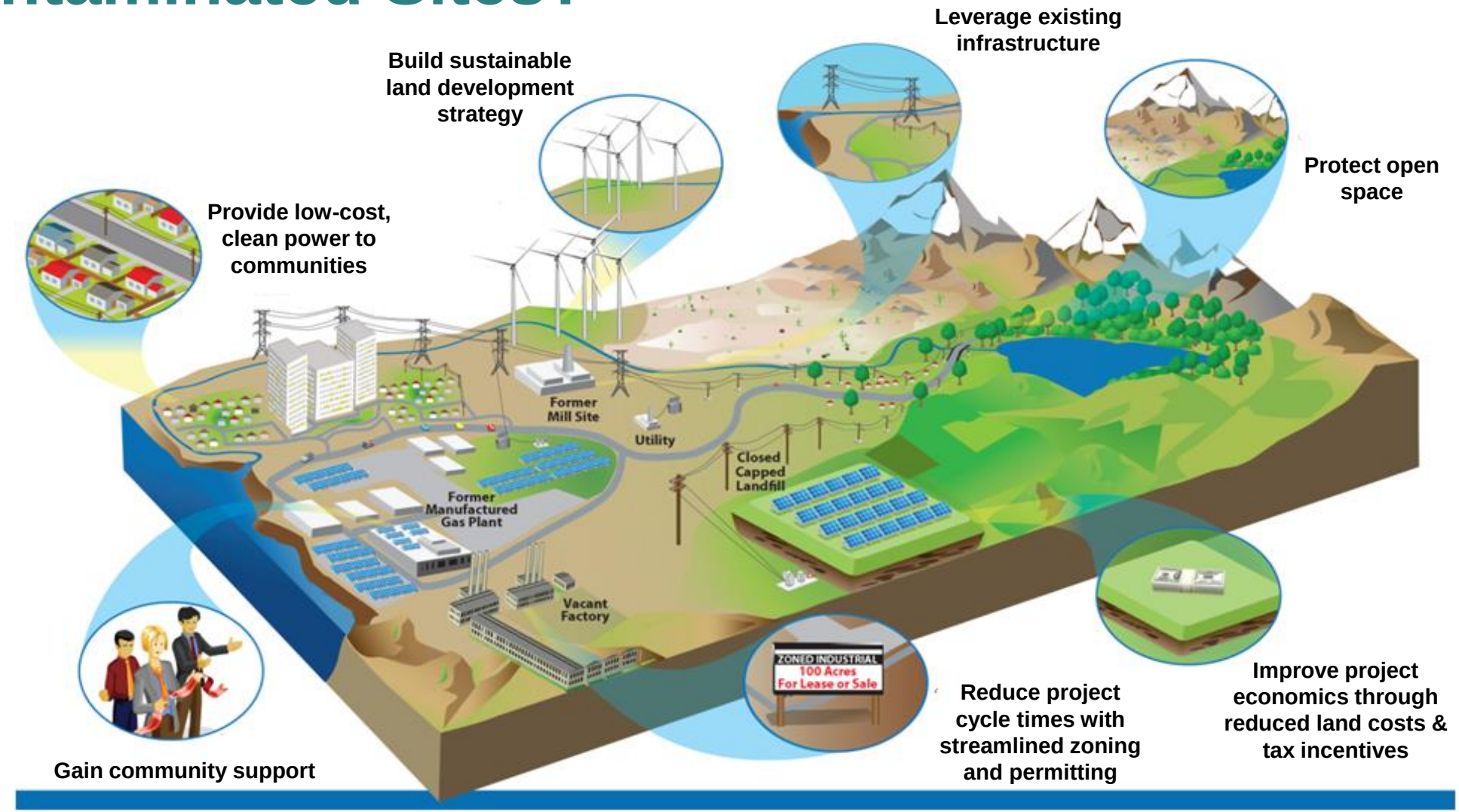

Addressing Climate Change: Leadership of States

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The Biden Administration set a 2030 Greenhouse Gas Pollution Reduction Target for the United States in April 2021. The Administration recognizes the leadership of states on climate change and calls for action.

America must act — and not just the federal government, but cities and states, small and big business, working communities. Together, we can seize the opportunity to drive prosperity, create jobs, and build the clean energy economy of tomorrow.

https://www.whitehouse.gov/briefing-room/statements-releases/2021/04/22/fact-sheet-president-biden-sets-2030-greenhouse-gas-pollution-reduction-target-aimed-at-creating-good-paying-union-jobs-and-securing-u-s-leadership-on-clean-energy-technologies

Goals of the Webinar

Increase knowledge

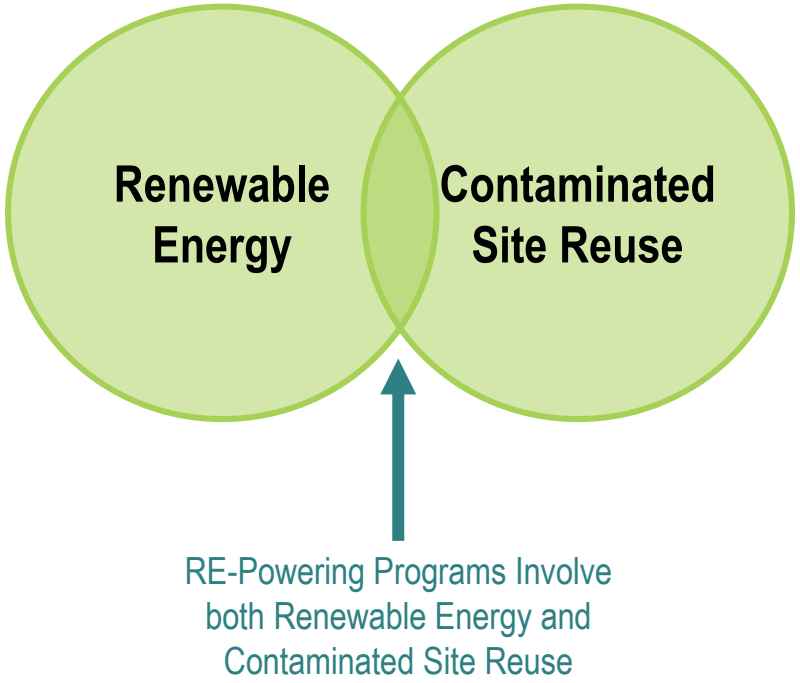
Increase knowledge of the influential role that state programs have played in the development of renewable energy on current and formerly contaminated lands, landfills, and mine sites.

Identify features

Identify state program features and best practices associated with renewable deployment success.

2 What are State Programs?

Key Concept


Renewable Energy
Contaminated Site Reuse
RE-Powering Programs Involve both Renewable Energy and Contaminated Site Reuse

Key Definitions

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RE-Powering sites:

Current and formerly contaminated lands, landfills, and mine sites.

RE-Powering projects:

Renewable energy projects on RE-Powering sites.

Programs:

Collectively refers to organized policies, programs, and other activities performed by states to advance renewable energy on RE-Powering sites.

Eight Common Categories of State RE-Powering Programs

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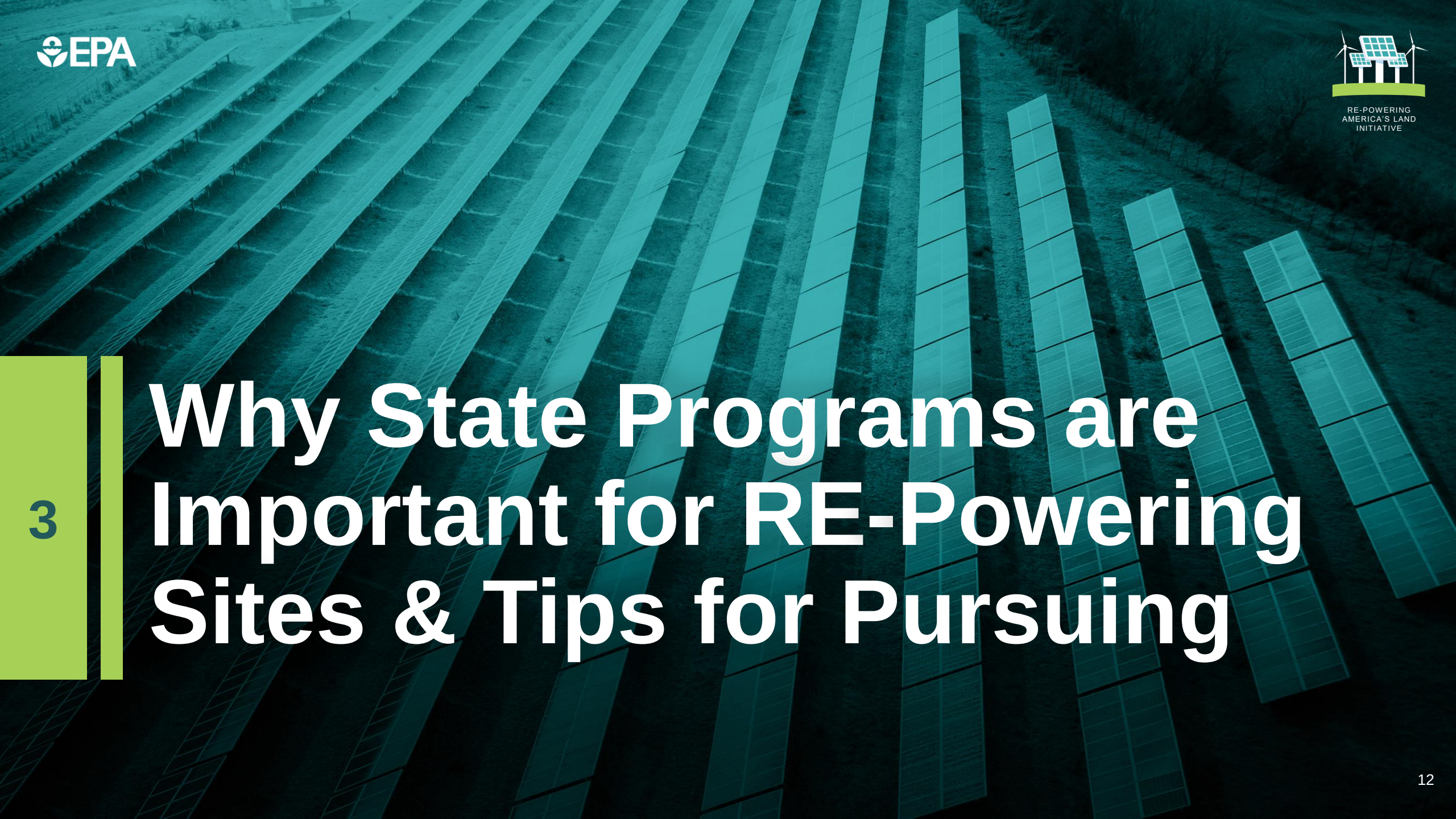
1. Direct Financial Incentives
2. Procurement Preferences or Requirements
3. Site Identification & Development Support
4. Education & Outreach
5. Streamlined Permitting & Environmental Reviews
6. Liability Relief
7. General Brownfield Reuse
8. Inter-agency Coordination



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Why State Programs are Important for RE-Powering Sites & Tips for Pursuing

States with RE-Powering Programs

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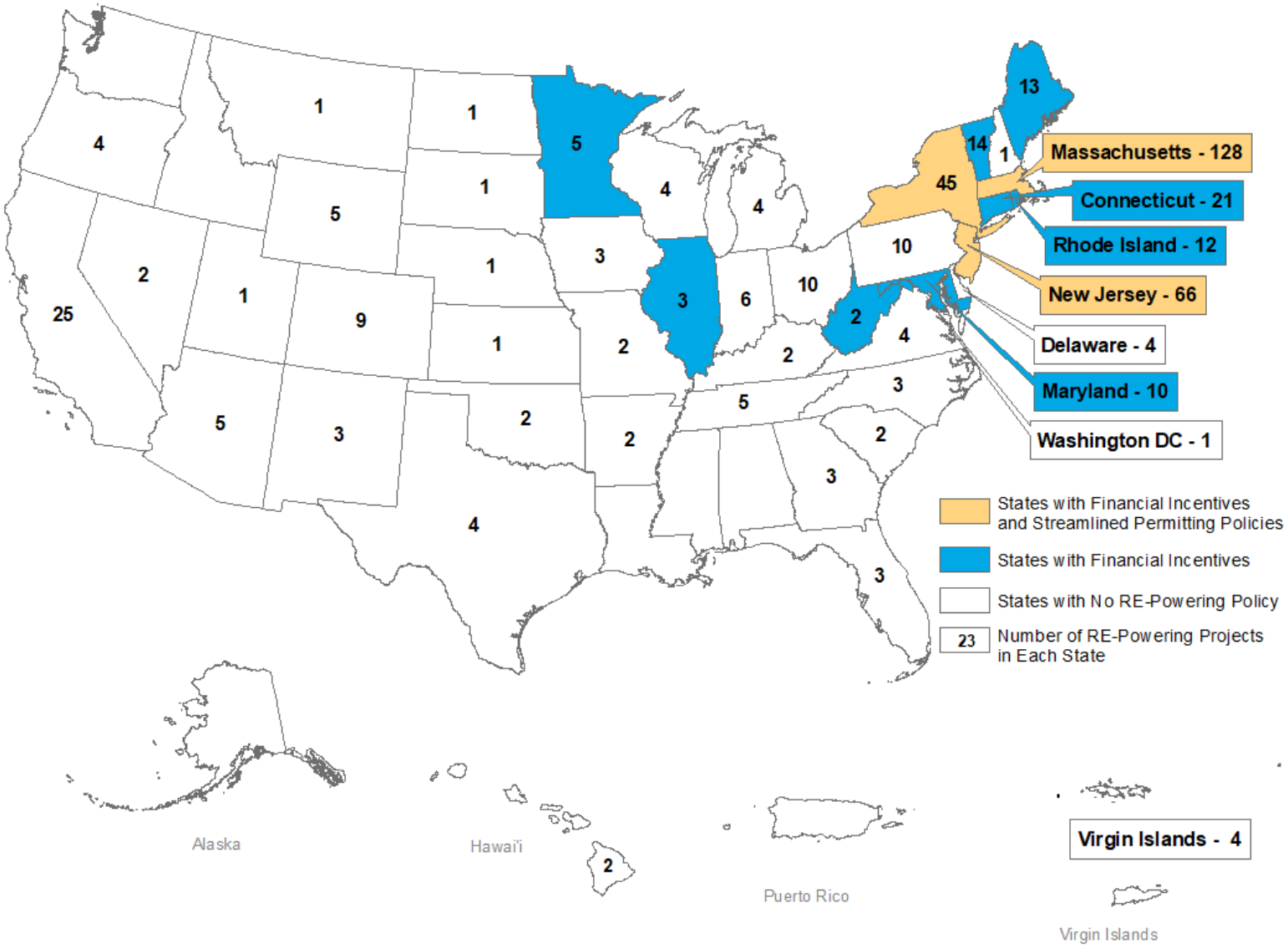
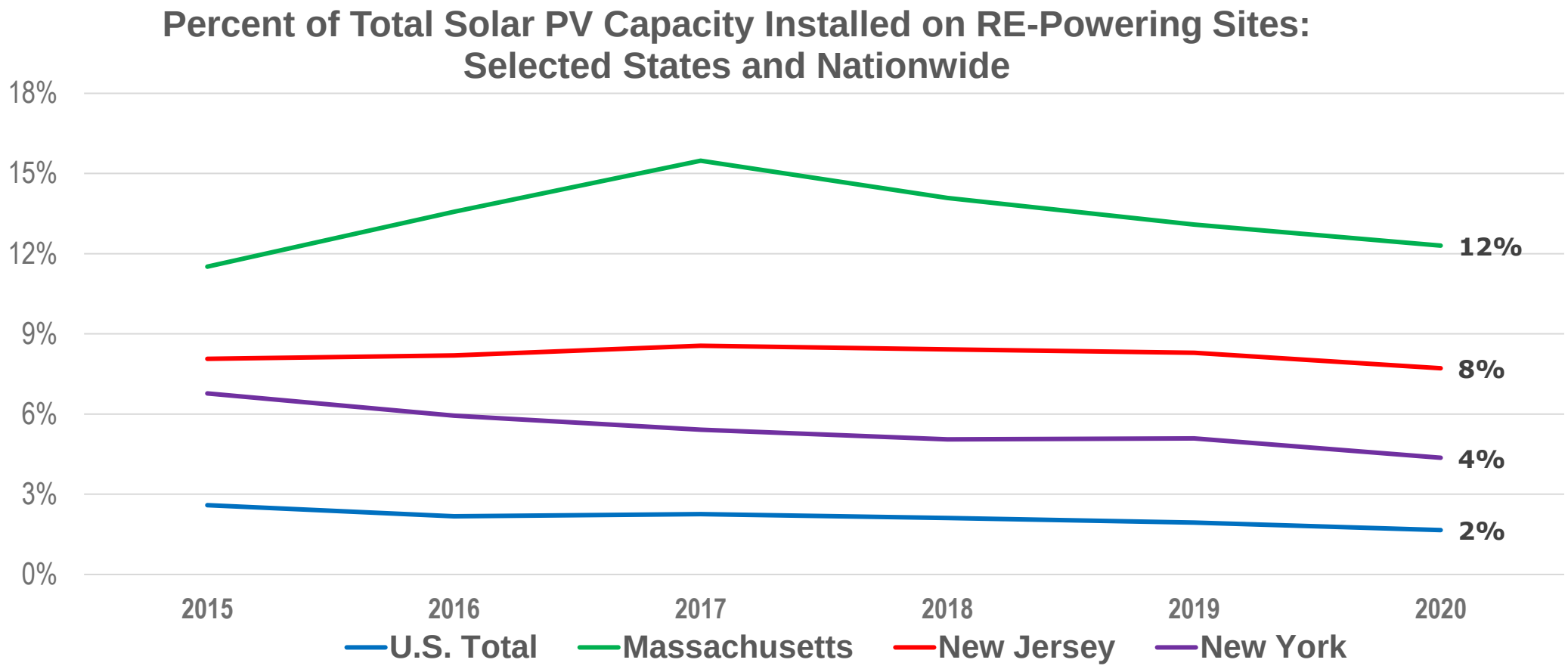


National total = 459 constructed projects

Note: This map designates a subset of state program types (direct financial incentives and procurement preferences or requirements, consolidated under the combined label of "financial incentives" on the map, and streamlined permitting/ environmental reviews for RE-Powering sites). The map is based on information available to EPA's RE-Powering Initiative in October 2021 and may not be comprehensive.

States with RE-Powering Programs have more Solar Capacity Installed



Note: This chart is based on information available to EPA at the time of its publication and may be incomplete.

Data Sources: EPA RE-Powering, *Tracking Matrix*, https://www.epa.gov/re-powering/re-powering-tracking-matrix; EIA, DOE, *State Electricity Profiles*, https://www.eia.gov/electricity/state/.

4 General Steps to Select RE-Powering Programs to Implement

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1

Inventory Current State Programs

2

Identify State Goals

3

Review Options

4

Rank and Select Programs

4 Example Completed Scorecard to Rank Programs

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Program Criteria	Criteria % Weight	Program 1	Program 2	Program 3
Expands existing program	**10%**	0	0	3
Complements existing program	**10%**	0	2	3
Leverages common type of sites in state	**5%**	3	3	1
Can be implemented without new legislation	**5%**	0	3	3
Speed to implement	**5%**	1	3	3
Directly improves renewable project economics	**10%**	0	3	2
Expected land use impacts	**10%**	2	2	2
Expected environmental impacts	**10%**	2	2	2
Matches agency staffing levels and expertise	**10%**	1	1	3
Meets disadvantaged community/EJ objectives	**10%**	0	1	3
Aligns tightly with state goals/has strong sponsorship	**15%**	3	2	2
TOTAL SCORE	**100%**	**1.2**	**2.2**	**2.7**

Note: Criteria weights and scores here are hypothetical. Scores are based on a scale of 0-3, where 0 means the program option does not meet the criterion at all and 3 indicates meeting it very well. The total score is calculated by multiplying each criterion weight by the respective program score and, then, summing the resulting products in each program column.

Tips for Implementing Programs

Pilots

- Consider designing new programs with early pilot phases, with subsequent full programs drawing from pilot lessons learned.

Stakeholders

- Coordinate early and consistently among internal and external stakeholders.
- External stakeholders may include renewable energy developers, EJ communities, utilities, land use and environmental groups, and others.

Timelines

- Recognize that states with significant RE-Powering results have combined several program types and have implemented them over long periods.
- It can take 3+ years from a program's initiation to see results in installed projects, due to the length of the renewable energy project development cycle.
- Programs that require enabling legislation may take up to several years to get to the program initiation stage.

For More Information

RE-Powering home page:

https://www.epa.gov/re-powering

Contact:

Lora Strine,
EPA RE-Powering Team Leader
strine.lora@epa.gov

State Program Selection & Design Tips PowerPoint Report

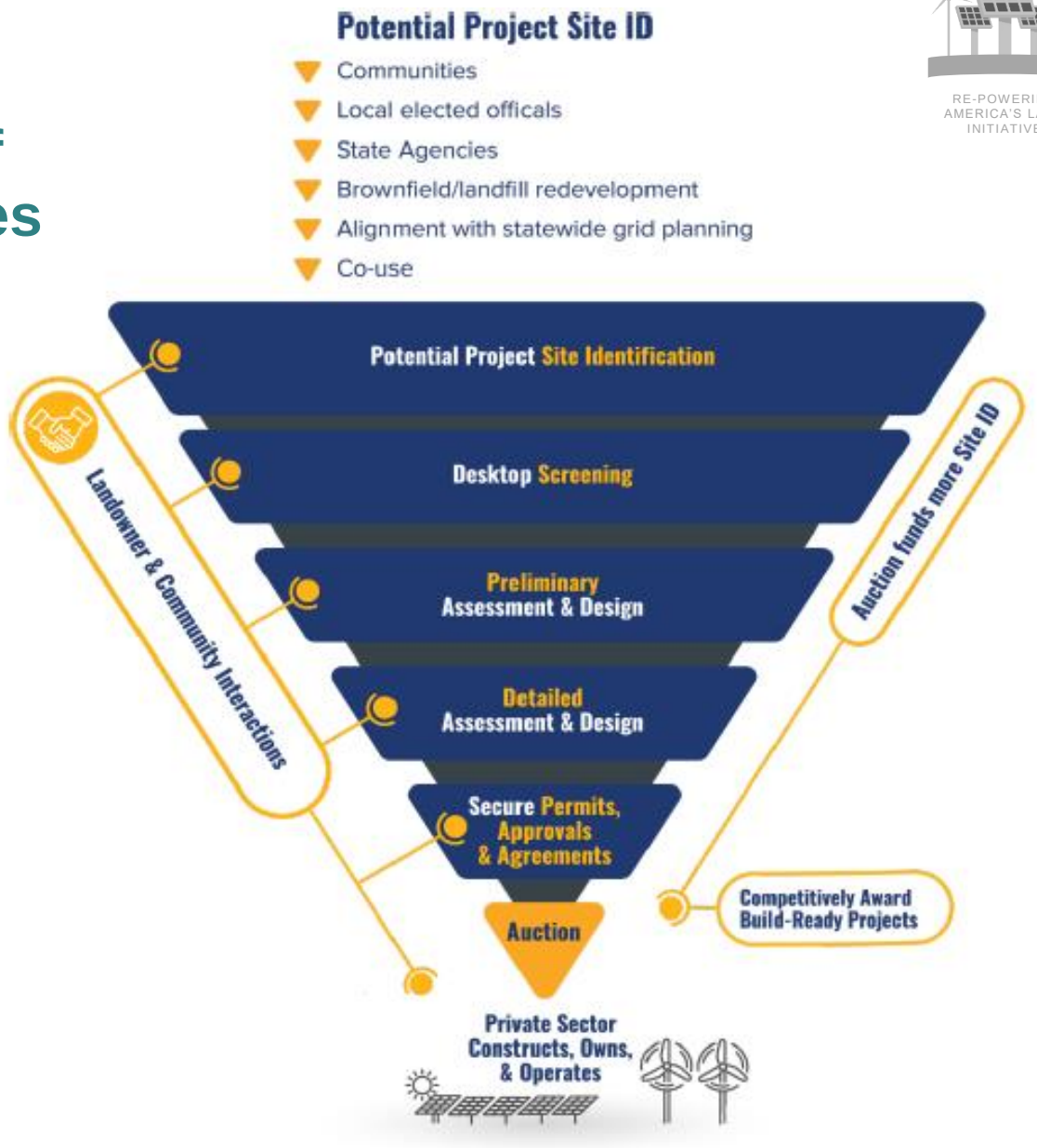
Thumbnail Descriptions of State Programs from National Map

Available upon request from EPA RE-Powering

4 Highlights from State Program Design & Selection

New York: Hands-on "Build-Ready" Program to Accelerate Development of Contaminated & Other Under-used Sites

- De-risking renewable energy development on contaminated and other under-used sites by obtaining site control, permits, interconnection, and limiting developer liability.
- Facilitating renewable energy development by providing patient capital, community benefits, and coordination across govt agencies.
- Identifying, evaluating, and advancing sites for renewable energy projects to be developed, owned, and operated by the private sector.
- Providing financial support and incentive to the private sector by offering developers 20-year Renewable Energy Credit (REC) Agreements.



FOR MORE INFORMATION: https://www.nyserda.ny.gov/All-Programs/Clean-Energy-Standard/Landowners-and-Local-Governments/Build-Ready-Program

Massachusetts: Approved Solar Projects Receiving Added Financial Incentives for Landfills & Brownfields

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Site Type	Number of Projects	Total Project Capacity	Average Capacity per Project
"SREC-II" Program (between 2014 – 2018)			
Landfill	52	134 MW_{DC}	2.6 MW_{DC}
Brownfield	19	51 MW_{DC}	2.7 MW_{DC}
"SMART" Program (2018 through December 3, 2021)			
Landfill	12	27 MW_{AC}	2.3 MW_{AC}
Brownfield	2	5 MW_{AC}	2.5 MW_{AC}

Notes: The 85 projects receiving incentives from these two state programs are ~19% of all RE-Powering projects nationwide

MW = megawatt; AC = alternating current; DC = direct current

Source: Massachusetts Department of Energy Resources ,
Lists of Qualified Generation Units, https://www.mass.gov/service-details/lists-of-qualified-generation-units

New Jersey: RE-Powering Incentives

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- **Solar Act of 2012 – Subsection t:**
  - Grid supply projects sited on Brownfields, Properly Closed Sanitary Landfills and Areas of Historic Fill, as determined by NJDEP, are eligible for Solar Renewable Energy Certificates (SRECs).
- **Clean Energy Act of 2018:**
  - Solar Transition / Transition Renewable Energy Certificate (TREC): Subsection t site types eligible for TRECs.
  - Community Solar Energy Pilot Program: Projects proposed to be sited on Brownfields, Landfills, and Areas of Historic Fill were higher preference per evaluation criteria.
- **Solar Act of 2021 (SREC II's): 3.75 gigawatts (GWs) of new solar by 2026 – currently at 3.76 GWs**
  - Administratively Determined Incentive: Net Metered Projects < 5 MWs, Community Solar and Subsection t site types until Competitive Solicitation Incentive is developed.
    - Permanent Community Solar Program targeted for 2022.
  - Competitive Solicitation Incentive: Net Metered Projects > 5 MWs & Grid Supply Projects
    - Stakeholder process on-going.
    - Bidding categories / site criteria may include projects sited on Contaminated Sites or Landfills.
    - Projects shall not be sited on land designated as Green Acres, Pinelands Preservation Area, Pinelands Forest Area, Freshwater / Coastal Wetlands, Highlands Preservation Area, Forested Lands, Preserved Farmland, or Prime agricultural soils and soils of statewide importance located within an Agricultural Development Area.

- https://njcleanenergy.com/renewable-energy/program-updates-and-background-information/solar-proceedings

New Jersey: Resources to Support RE-Powering

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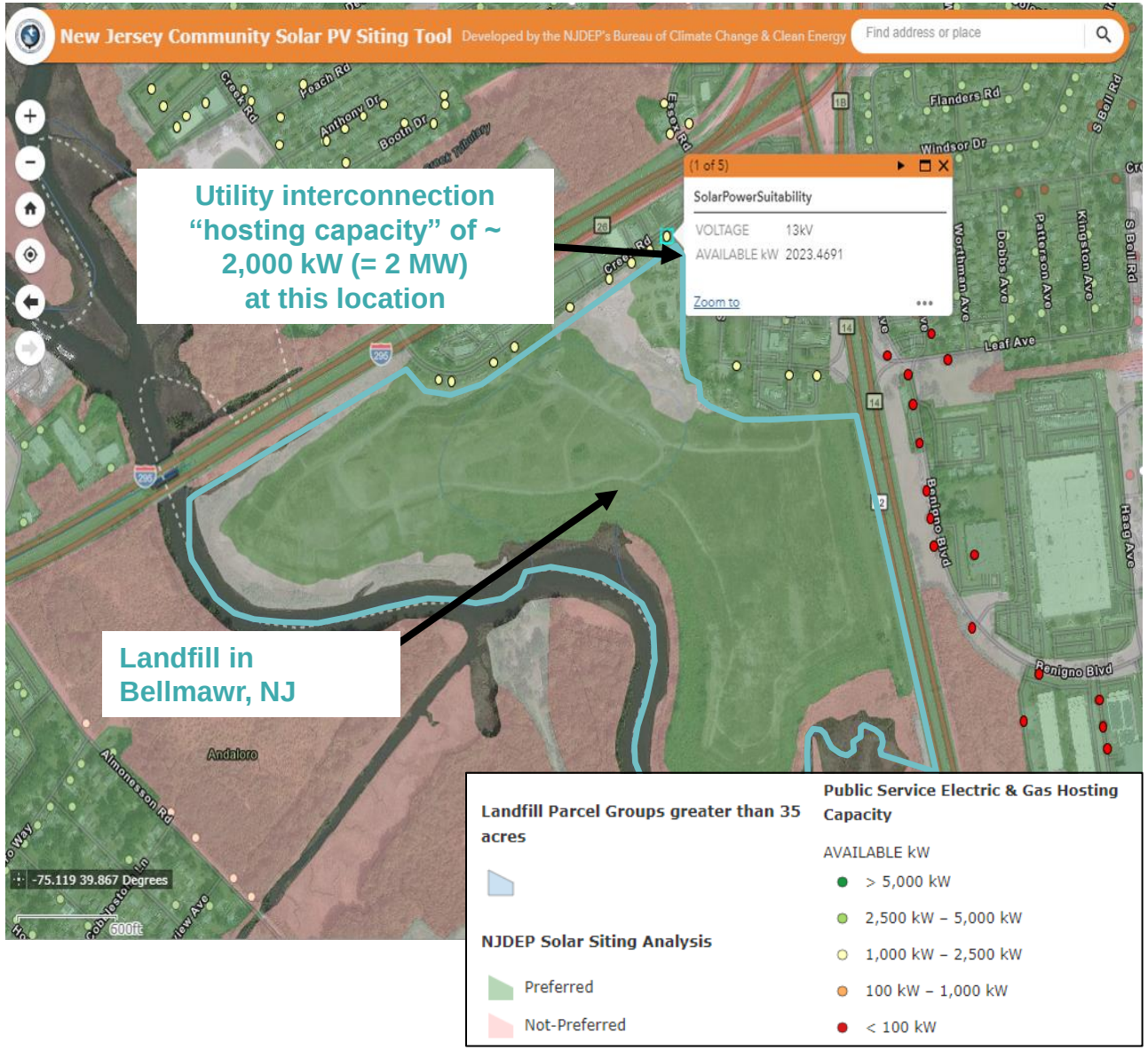
- **Solar Siting Analysis**
  - NJDEP's Statewide Preference for Solar Siting: Currently Based on Land Use / Land Cover Data.
- **Community Solar Siting Tool**
  - Geographic Information System (GIS) Data: Hosting Capacity, Electric Distribution Company (EDC)/Utility Territories, Landfills, Areas of Historic Fill, Known Contaminated Sites, Deed Notice Areas, Parcel Data, LU/LC,
  - User's Guide.
- **Streamlined Permitting Process**



- https://www.nj.gov/dep/aqes/solar-siting.html
- https://www.nj.gov/dep/pcer/