

Global Challenge, Local Action

Localizing statewide climate initiatives
Sullivan County, New York • October 16, 2019



Land recognition

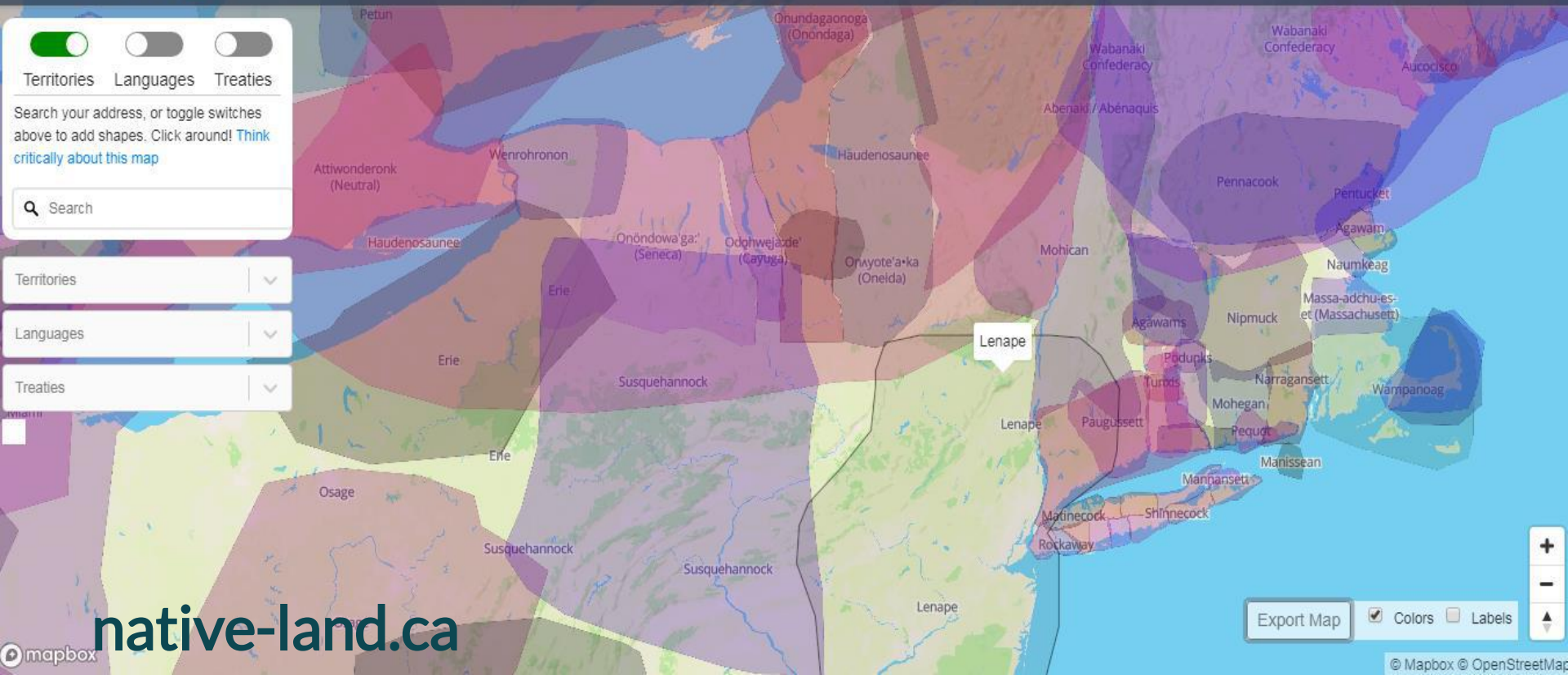
Territories Languages Treaties

Search your address, or toggle switches above to add shapes. Click around! [Think critically about this map](#)

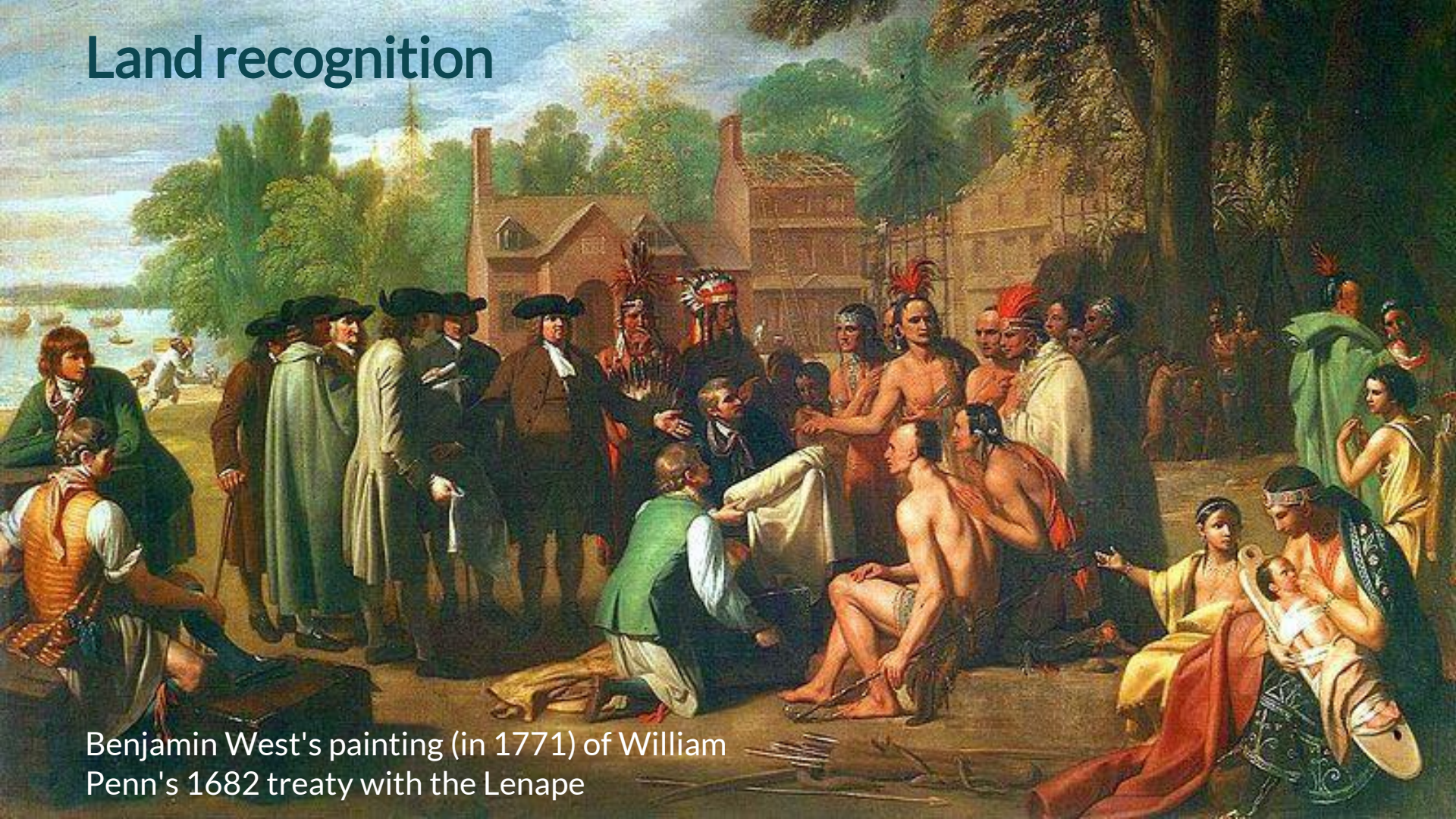
Territories

Languages

Treaties



Land recognition



Benjamin West's painting (in 1771) of William Penn's 1682 treaty with the Lenape

How we work

SCALE UP
AND EXPAND THE MODEL OF
SUSTAINABLE
CITIES AND REGIONS

MAKE SUSTAINABILITY A
FUNDAMENTAL
PART OF ALL LOCAL AND
GLOBAL DEVELOPMENT

TACKLE THE MOST
PRESSING ISSUES
OF OUR TIME TO PROTECT THE
LONG-TERM INTERESTS OF
CITIZENS

UNDERTAKE A
COLLECTIVE
EFFORT
FOR GLOBAL CHANGE ACROSS ALL
SECTORS AND LEVELS OF GOVERNMENT

LOW EMISSION
DEVELOPMENT



RESILIENT
DEVELOPMENT



CIRCULAR
DEVELOPMENT



EQUITABLE AND
PEOPLE-CENTERED
DEVELOPMENT



NATURE-BASED
DEVELOPMENT



ICLEI-Local Governments for Sustainability

ICLEI is the leading global network of more than 1,750 cities, towns and regions committed to building a sustainable future. As the *only organization serving counties, towns and cities of all sizes*, ICLEI provides technical assistance, tools and resources, and facilitates an interactive network of local climate leaders across the U.S. and globally.

We help local governments build capacity and knowledge to make more informed decisions using protocols, data and best practices to reduce carbon pollution and respond to an ever changing climate.

MEMBERSHIP PERCENTAGE BY REGION



U.S. POPULATION IN ICLEI MEMBER CITIES AND COUNTIES

60,436,272

POPULATION UNDER 100,000

62%



CLIMATE SUMMIT OF LOCAL
AND REGIONAL LEADERS

12 NOV 2017 | COP23 | BONN



5 Takeaways from the UN Climate Summit

The next decade is critical

Local governments need innovative finance

Nature-based solutions and biodiversity are a part of effective climate action.

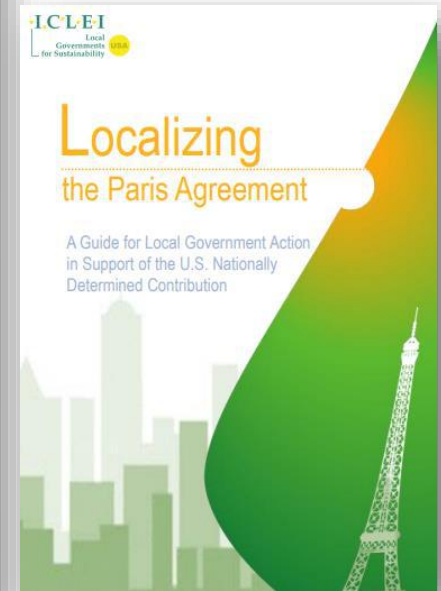
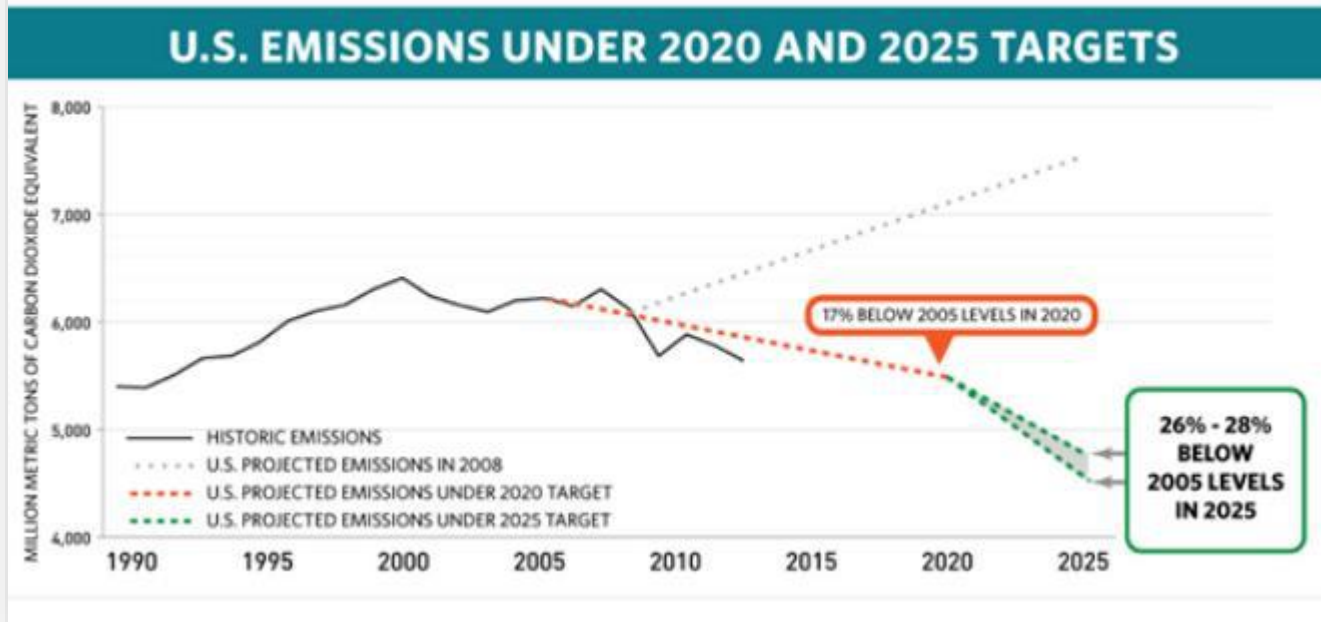
Partnerships are “the new normal” for achieving integrated, effective action

Local governments are bringing their contributions to the table, but they support from national and state governments



Localizing the Paris Agreement

Figure 1: U.S. GHG emissions projections for NDC target (Source: [U.S. NDC](#))



HOW TO ACHIEVE CLIMATE NEUTRALITY

STEP 1: GO LOW-TO-NO

Achieve low or net-zero emissions through 100 percent renewable energy and other strategies, beginning in government operations and infrastructure with the aim to scale up to the community scale.



STEP 2: DIVEST

Divest from fossil fuels and unsustainable practices, freeing up resources for sustainable investments.



STEP 3: INVEST

Invest in ambitious mitigation and adaptation actions, actively implementing sustainable public procurement and other strategies not always considered in climate planning.



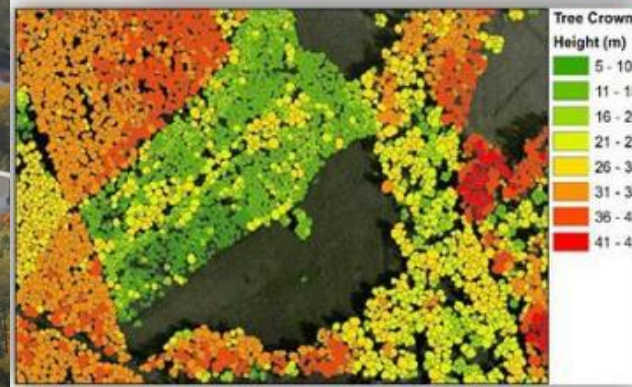
STEP 4: OFFSET

Offset any emissions that cannot be further reduced or avoided, ideally through UN recognized mechanisms such as purchasing credits and donation to funds which support integrated, sustainable urban and territorial development. These offsetting opportunities may also be local and voluntary.



Case: Forestry Protocol for GHGs

Philipstown



Case: Urban Transitions Alliance Buffalo





Case: Fossil Fuel Divestment New York City

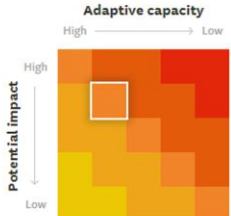
Case: Vulnerability Assessment New Paltz

2020 ADAPTIVE PLAN

Dashboard

How is **adaptive need** calculated?

Adaptive need represents a risk's priority, from yellow (lowest) to deep red (highest). Its value depends on the risk's **potential impact** and your city's **adaptive capacity** to manage it.



25% **Take action**

City profile

Enter information about your city, including any long-term goals you hope to achieve

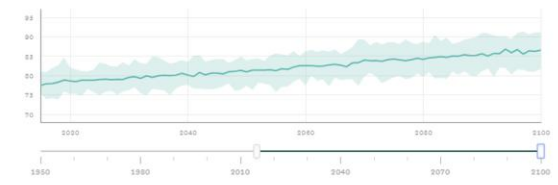
0/5 0%

25% **Assess** Action steps

risks **Assess** Action steps

Average High Temperature

Scenario: Low emissions | High emissions | All available models | Units: F | Dataset: LOCA | NEX-GDDP



Aggregated average high temperature, generated from daily data using all requested models



Case: SolSmart cohort session Sullivan County



Contact

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The Climate Leadership and Community Protection Act: Moving New York to a Carbon-neutral Economy

Mark Lowery

Assistant Director

Office of Climate Change

New York State Department of Environmental Conservation

Why is This Climate Act Important?

- Economic damage attributable to climate change in the US will be in the 100s of billions of dollars per year by 2090 under a high emissions scenario – close to our current emissions track (NCA4).
- Even 1.5°C will carry significant risks, and risks are substantially higher at 2°C warming. Allowing warming of 1.5C could trigger feedback loops with the potential to cause runaway warming.(IPCC)
- Paris commitments would lead to a 3.0 – 3.5° C rise. (Climate Interactive)
- On current track we will emit enough greenhouse gases by 2030 to make holding warming to 1.5°C impossible. (IPCC)



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Climate Leadership and Community Protection Act

- Most aggressive GHG reduction goals of any major economy: 40X30, 85X50
- Path to carbon neutrality
- Codifies clean energy targets
 - 70% renewable energy by 2030
 - 100% clean electricity by 2040
 - 9,000 MW of offshore wind by 2035
 - 6,000 MW of distributed solar by 2025
 - 3,000 MW of energy storage by 2030
 - 185 Tbtu on-site energy savings by 2025
- Commitments to environmental justice and just transition



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GHG Emissions Limits

- By January 2021, DEC must promulgate rule to establish statewide GHG emissions limits:
 - 2030: 60% of 1990 emissions
 - 2050: 15% of 1990 emissions
- At least one public hearing



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Social Cost of Carbon

- By January 2021, DEC to establish social cost of carbon (\$/ton CO₂e)
 - Estimate of value of not emitting GHGs
 - Abatement costs or social impacts costs
- For use by state agencies in program evaluation



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GHG Emissions Report

- By January 2022 DEC to issue GHG emissions report
 - Must identify relative contribution of each GHG and each type of source
- At least two public hearings on methodology
- Annual updates



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Climate Action Council

- Draft scoping plan of recommendations for achieving GHG limits **by January 2022**, final in 3 years
- Co-chaired by DEC and NYSERDA
- Member Agencies: DOT, DOH, ESD, DAM, HCR, DOL, PSC, NYPA, LIPA, DOS
- 2 Governor appointments
- 8 Legislative appointments
- Advisory panels (chaired by relevant agency):
 - Transportation
 - Land use and local government
 - Housing and energy efficiency
 - Energy intensive industries
 - Power generation
 - Agriculture and Forestry



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Developing the Scoping Plan

- Scoping plan shall outline recommendations for measures to achieve the emission targets, including zero emission economy
- Plan shall include the following:
 - Measures to aid in just transition of workforce
 - Mechanisms to limit emission leakage
 - Measures to achieve healthy forests
 - Council shall quantify costs and benefits
- Process
 - Consult with Climate Justice WG and EJ Advisory Group
 - Hold 6 public comment hearings on the draft plan
 - Update every five years



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Implementing the Scoping Plan – DEC

- By end of 2023, DEC shall promulgate regulations that
 - ensure compliance with 2030 and 2050 emission targets,
 - cover all sectors but livestock,
 - reflect the findings of scoping plan,
 - maximize net benefits, reduce leakage, and benefit disadvantaged communities.



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Implementing the Scoping Plan – All Agencies

- All agencies to
 - implement strategies to reduce their emissions;
 - consider whether permit, licenses and other actions are consistent with achieving emission targets and, if not, identify alternatives or mitigation;
 - to promulgate regulations that contribute to meeting the emission targets.
- Actions should benefit, not burden, disadvantaged communities



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Investing in Disadvantaged Communities

- Disadvantaged communities to receive at least 35% of the overall benefits clean energy and energy efficiency programs, projects or investments
- Disadvantaged communities to receive at least 40% of overall benefits of clean energy and energy efficiency programs, projects or investments in the areas of housing, workforce development, pollution reduction, low income energy assistance, energy, transportation and economic development.



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Main Sources of Greenhouse Gases in NYS



36%



32%



15%



8%



5%

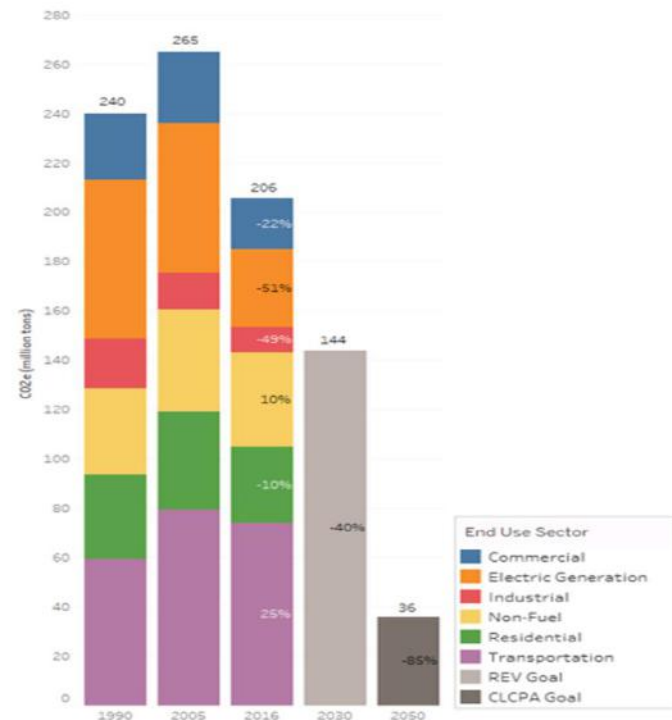


4%

New York State emitted approximately 206 million metric tons of CO₂ equivalent in 2016— about 0.5% of total annual global emissions.

Reaching 40% by 2030 and carbon neutrality

- Requires
 - Electrification of cars and heating
 - Deep penetration of renewables
 - Waste diversion (organics and embedded emissions)
 - Conversion of refrigerants
 - Deep energy efficiency improvements – in all sectors



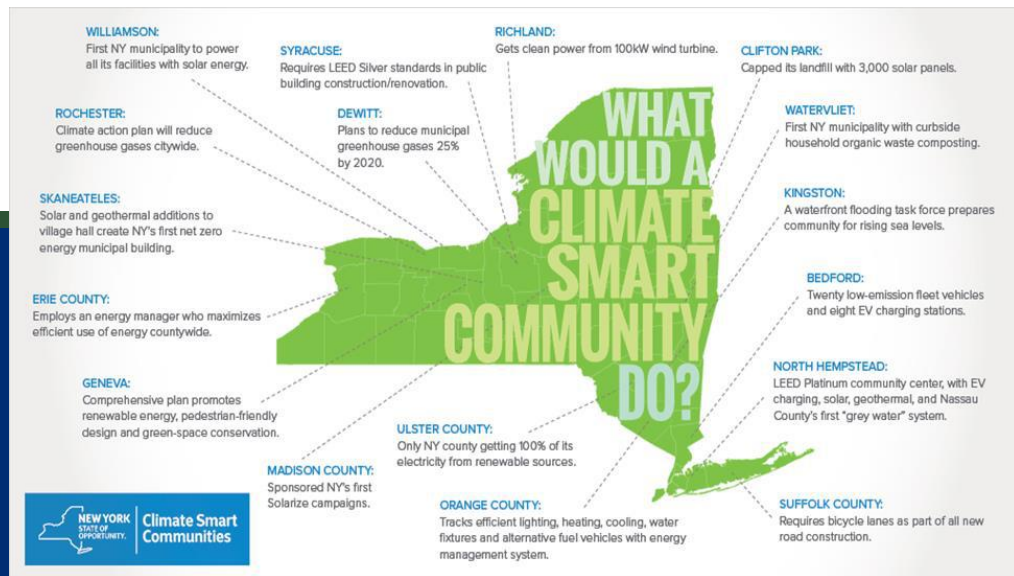
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Climate Smart Communities

State support for local climate action



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Climate Smart Communities Benefits



Free technical assistance

- Regional coordinators through NYSERDA

Guidance & tools on mitigation & adaptation

- Extensive website with info and decision-support tools
- Monthly webinars, email list,

Funding

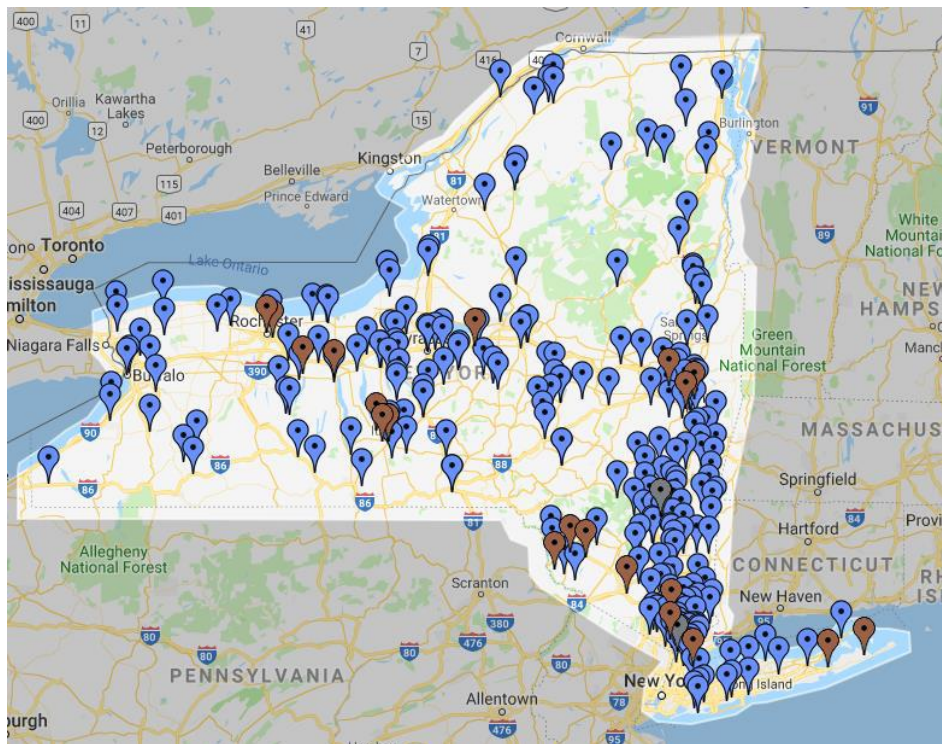
- CSC grants
- ZEV rebates

Leadership recognition

Networking



Climate Smart Communities



- **280 Registered** (since 2009)
 - 42% of New Yorkers live in these “pledged” communities (over 8 million people)
 - 17% of ~1607 local governments
- **34 Certified** (since 2014)
 - Leaders who have documented progress

Full list at <https://climatesmart.ny.gov/actions-certification/participating-communities/>



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Registered vs. Certified Climate Smart Community

- **Registered** = making a commitment
 - Local government passes a formal municipal resolution adopting the 10-point CSC Pledge
- **Certified** = leaders who've made concrete progress
 - Accumulate points through documented actions to achieve Bronze or Silver (Gold yet to come)
 - 1-10 points per action, 130+ total possible actions
 - Range of action types: planning, policies, outreach, implementation, etc.



Climate Smart
Communities



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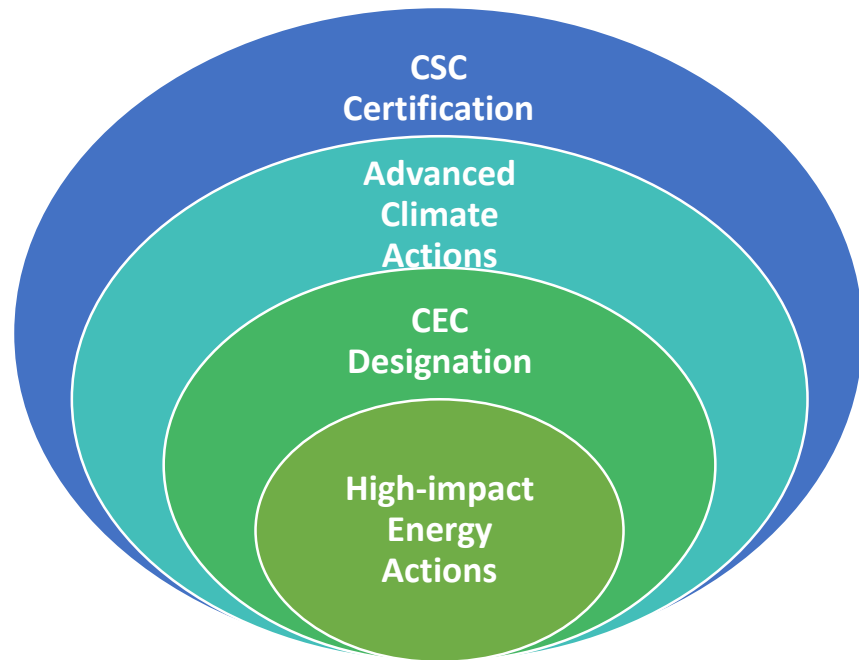
How are the CSC & CEC programs related?

Climate Smart Communities Certification

- Comprehensive climate program
- >100 unique actions
- Accumulate points toward certification and improve score on CSC grant applications

Clean Energy Communities

- Focused on clean energy
- 10 high-impact actions
 - 1 of the 10 is CSC Certification
- Complete 4 high-impact actions to be designated and access grant funding



- **Earn points toward CSC Certification by doing CEC actions**
 - Do both! They are complementary programs



Save on ZEVs through NYS Programs

DEC Municipal ZEV Rebates –

- Up to \$5000 for purchase/lease plug-in electric hybrids or battery-powered cars
 - Now open
- Eligible infrastructure for charging/fueling ZEVs
 - RFA coming soon





It's time to

- commit (or recommit),
- organize,
- make a plan,
- get technical and financial help, and
- prepare for the long haul.

What can you do?

- Calculate your personal GHG footprint www.nature.org/greenliving/carboncalculator
- Reduce energy usage, waste and emissions at home, at work, on the road and at school
- Consider a plant-based diet
- Compost if feasible
- Support climate-protection policies
- Make your community climate-smart
- Talk to your family, friends and neighbors, elected officials & those who want your vote



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Mark Lowery

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Albany NY 12233-1030

climatechange@dec.ny.gov

Connect with us:

- DEC: www.dec.ny.gov
- Community Risk and Resiliency Act: www.dec.ny.gov/energy/102559.html
- Climate Smart Communities: <https://climatesmart.ny.gov/>
- Facebook: www.facebook.com/NYSDEC
- Twitter: twitter.com/NYSDEC
- Flickr: www.flickr.com/photos/nysdec



Barriers Report

“report on barriers to, and opportunities for, access to or community ownership of the following services and commodities in disadvantaged communities ... :

- a. Distributed renewable energy generation
- b. Energy efficiency and weatherization investment
- c. Zero-emission and low-emission transportation options
- d. Adaptation measures to improve the resilience of homes and local infrastructure ...
- e. Other services and infrastructure that can reduce the risks associated with climate-related hazards, including but not limited to:
 - i. Shelters and cool rooms during extreme heat events;
 - ii. Shelters during flooding events; and
 - iii. Medical treatment for asthma and other conditions that could be exacerbated by climate-related events.” (§6)



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Benefiting Disadvantaged Communities

- Council to prioritize disadvantaged communities
 - Identify measures to reduce emissions of co-pollutants
 - Consult with Climate Justice Working Group and EJ Advisory Group
- DEC rulemakings to implement the Council recommendations
 - Ensure no increase in co-pollutant emissions or disproportionate burden on disadvantaged communities
 - Prioritize measures to reduce emissions in disadvantaged communities
- DEC to implement community air monitoring
 - In coordination with Climate Justice Working Group, DEC shall establish pilot by October 2022 community air monitoring in at least 4 disadvantaged communities.
 - By June 2024, DEC shall prepare a strategy to reduce emissions in disadvantaged communities with a disproportionate pollution burden



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Just Transition Working Group

- Advise Climate Action Council on opportunities for work force development for clean energy economy
- Identify effects on energy-intensive industries and related trades
- Identify sites of electric generating units that may be closed and that can be reused
- Advise on potential competitiveness effects and emission leakage
- Conduct study on jobs to address work force disruption



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Bolsters the Community Risk and Resiliency Act

- Permit applicants for all major projects subject to UPA must consider future physical climate risk
- Expands list of climate hazards that must be considered from “sea-level rise, storm surges and flooding” to include all conceivable hazards
- Authorizes DEC to require mitigation of climate risks



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Clean Energy Communities

Brad Tito, Program Manager

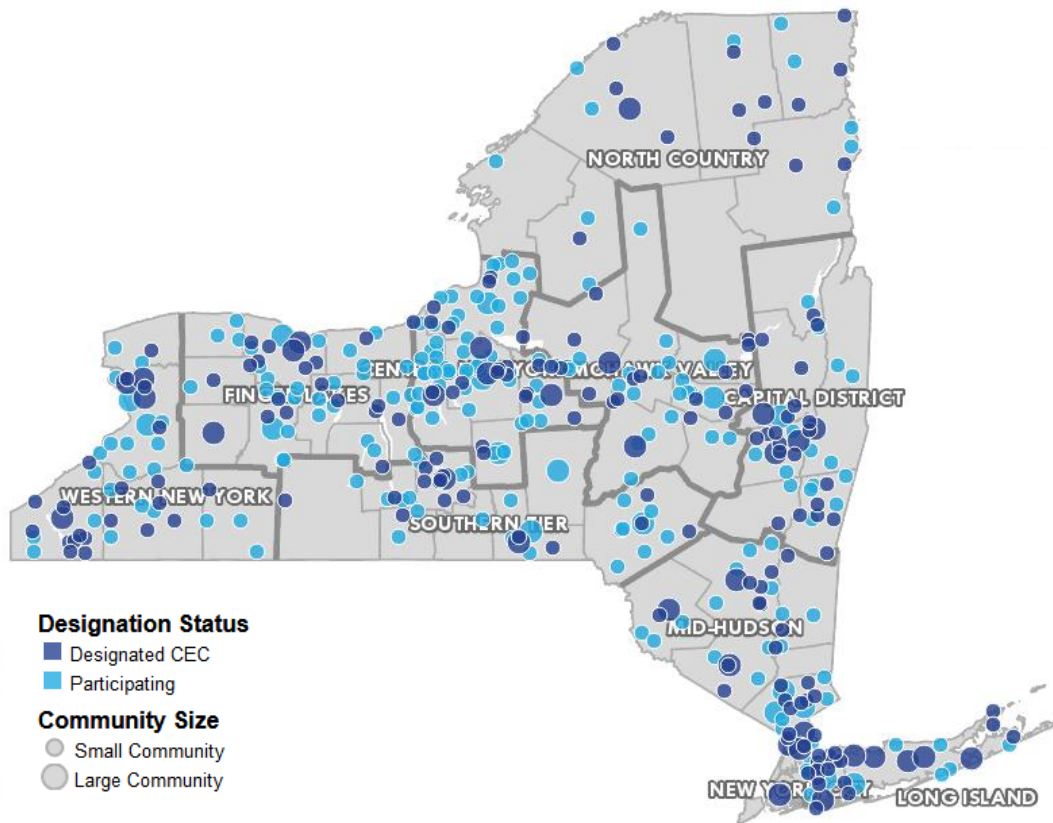
Communities and Local Government Team at NYSERDA

10 High-Impact Actions

1. Benchmarking
2. Clean Energy Upgrades
3. LED Street Lights
4. Clean Fleets
5. Solarize, Clean Heating and Cooling, and Solar for All Campaigns
6. Unified Solar Permit
7. Energy Code Enforcement Training
8. Climate Smart Communities Certification
9. Community Choice Aggregation
10. Energize NY Finance



NYSERDA's Clean Energy Communities Program



294

Clean Energy Communities

570

Participating Communities

1,658

High-Impact Actions Completed



NYSERDA

Current Status of CCA in NYS

Operating CCAs

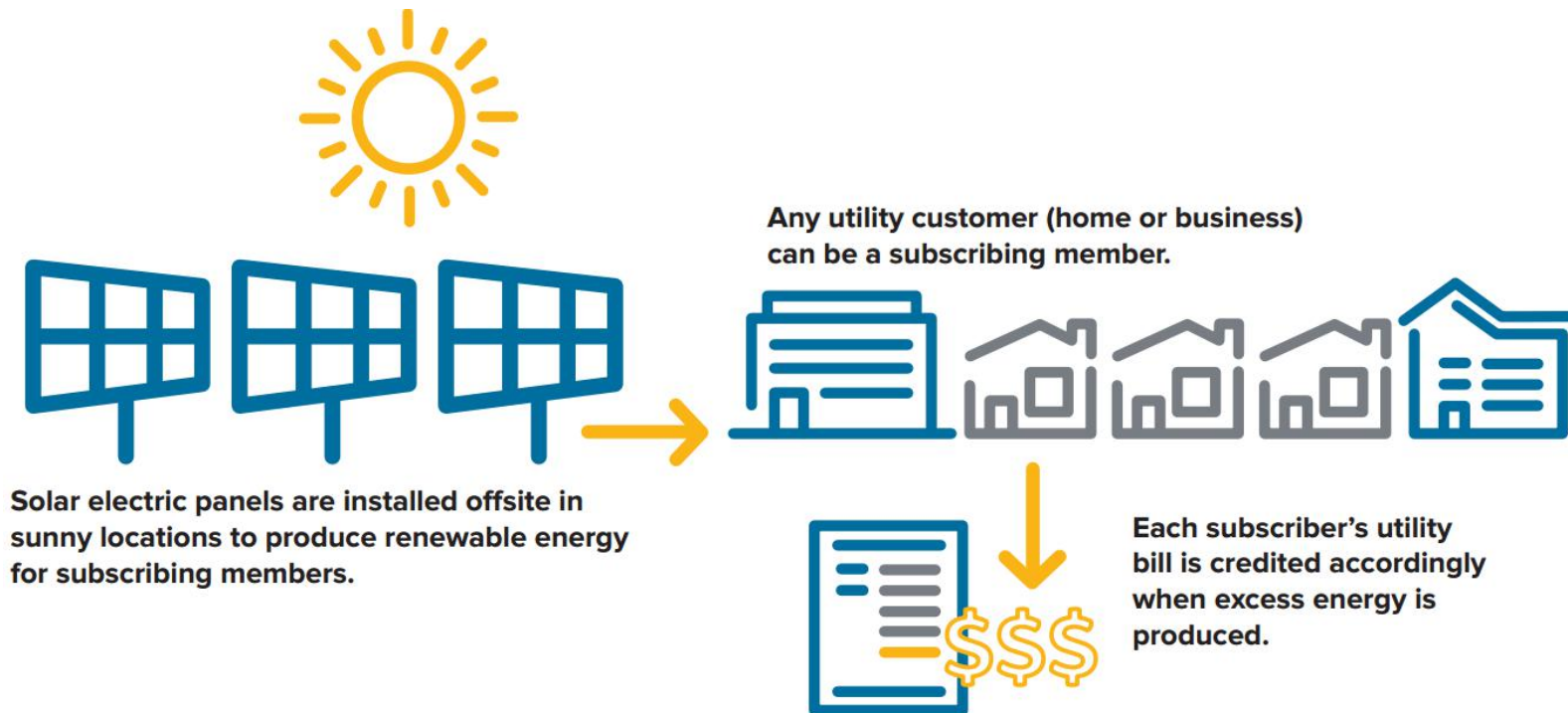
- 61 cities, towns, and villages in NYS with an active CCA
- ~170,000 residential and small commercial electricity accounts
- 38 municipalities are currently receiving 100% renewable energy as default supply
- Total Estimated load
 - 1.4 million MWH/yr
 - 850,000 MWH/yr of renewable energy

Approved CCA Administrators

- Sustainable Westchester
- Municipal Electric and Gas Alliance (MEGA)
- Good Energy
- Joule Assets



What is Community Solar



What Does Community Solar Look Like?



Roof Mount



Ground Mount



Parking Canopy

Any of these system types can be a community solar project

Solar for All: Free Community Solar

- State administered program that provides utility bill assistance for low-income New Yorkers
- Participants save money through a free community solar subscription – save up to \$180/year
- Similar to HEAP, credits appear on the electric bill



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What a Customer Gets

Meter Number		Current Meter Read Date Reading		Previous Meter Read Date Reading		Reading Difference	Billed Usage	Billing Period
		03/27/19	88365 E	03/01/19	87700 A	665	665 kwh	27 days
		03/27/19	49121 E	03/01/19	48680 A	441	441 kwh	27 days

Type of read: A - Actual, E - Estimate, C - Customer, R - Remote and N - No read

Period End Date	Prior Excess CDG Generation	Current CDG Generation	CDG Generation Applied	Remaining CDG Generation
03/27/19	0 kwh	817 kwh	817 kwh	0 kwh

Electricity Delivery Charges

Basic service charge		17.40
Delivery charge	1106 kwh @ 0.03595	39.76
Transition charge	1106 kwh @ 0.001849	2.04
Revenue decoupling mech	1106 kwh @ 0.001504	1.66
SBC charge	1106 kwh @ 0.005932	6.56
CDG generation credit	447 kwh	-36.95
Subtotal Electricity Delivery		\$30.47

Electricity Supply Charges

On-peak supply charge	665 kwh @ 0.03628406	24.13
Off-peak supply charge	441 kwh @ 0.03252115	14.34
Merchant function charge	1106 kwh @ 0.002721	3.01
CDG generation credit	370 kwh	-30.65
Subtotal Electricity Supply		\$10.83

Electricity Taxes and Surcharges

- Monthly credits on their electric bill from solar energy
- No change to the utility provider, service, or supplier
- Save \$5-15 a month
- No upfront costs, fees, or payments to participate. Free Cancellation.
- Does not affect any existing benefits that they have
- Locked in until September 2028

How to Sign Up



Sign up two ways

- **Online:** sign up directly on nyserda.ny.gov/solar-for-all using a mobile device, tablet or computer
- **Paper Application:** call 1-877-NYSMART to receive a paper application in the mail

Submit two documents

- Utility Bill
- Income Eligibility Verification



Thank You!

Brad Tito

Program Manager, Communities & Local Governments

NYSERDA

P: 212-971-5342 x3545 | E: bradford.tito@nyserda.ny.gov

Communities and Local Government Team

New York State Energy Research and Development Authority (NYSERDA)

www.nyserda.ny.gov



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SolSmart:
Communities Taking Steps to Grow
Local Solar Economies

Toyah Barigye

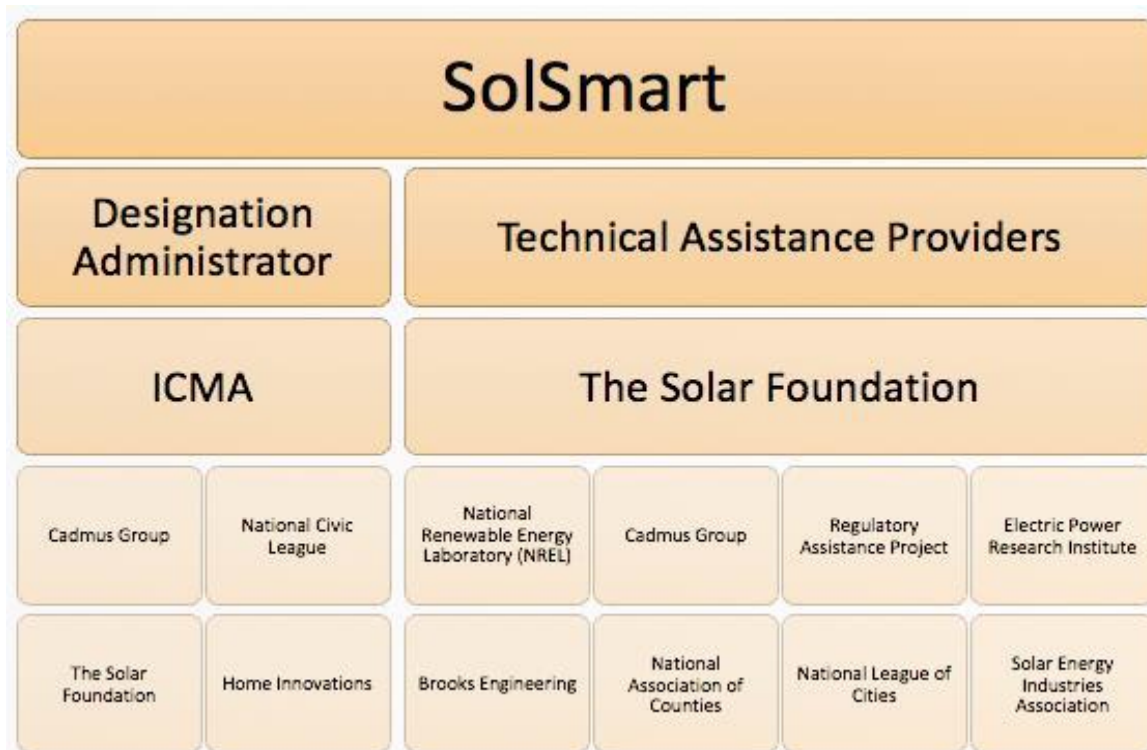
October 16, 2019

About SolSmart



- **Funding**
 - US Department of Energy (DOE) funds SolSmart through its Solar Energy Technology Office (SETO)
- **Goal**
 - Designate 300 US communities as a SolSmart community by October 2020 - The program accomplished this goal a year earlier, currently over 330 designated communities
- **Designation**
 - SolSmart nationally recognizes local solar achievements by designating communities SolSmart Gold, Silver, or Bronze
- **Technical Assistance**
 - To help local governments that might currently lack necessary resources or knowledge achieve SolSmart designation, or to help communities pursue a higher level of designation

The SolSmart Team



Designation Structure



- Complete 3 prerequisites
- 20 points in Permitting
- 20 points in Planning/Zoning
- 60 total points



- SolSmart Bronze
- Complete 2 prerequisites
- 100 total points



- SolSmart Silver
- Complete 1 prerequisite
- 200 total points

- The SolSmart scorecard is used to baseline a community's current solar processes and identify areas for technical assistance in 8 categories

SolSmart Categories



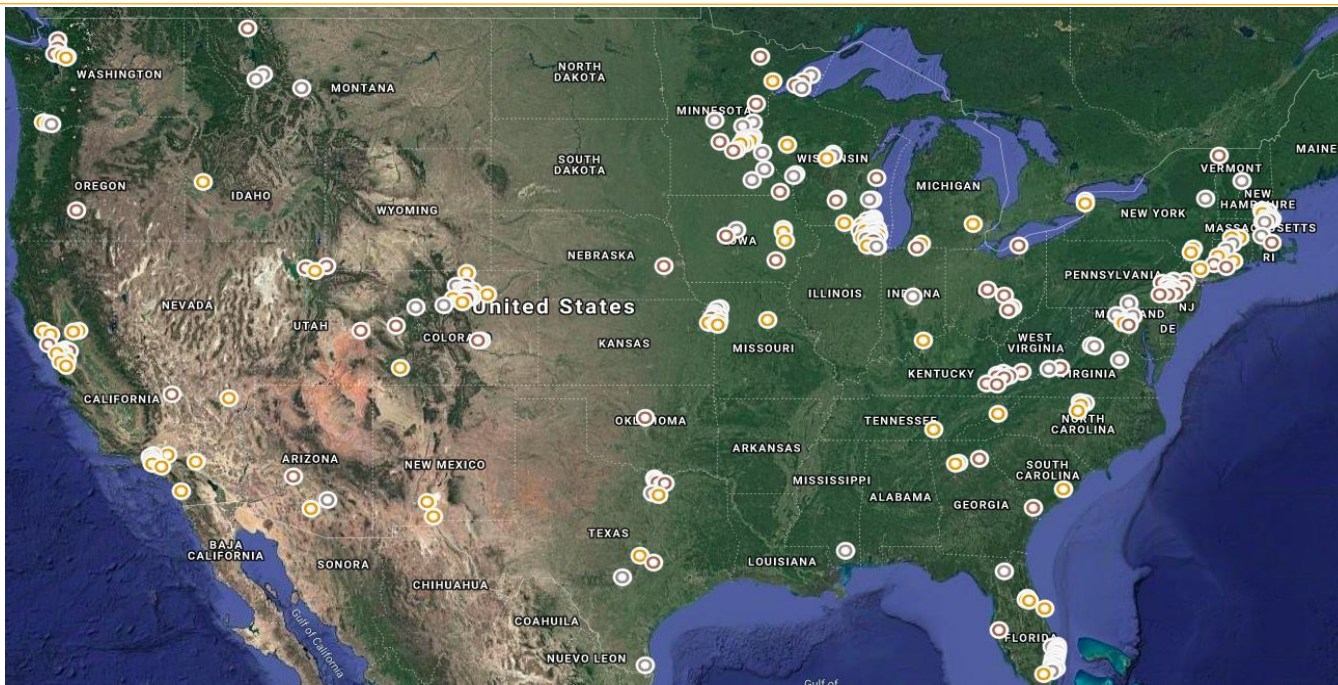
- **Permitting** - 15 credits, 135 pts
 - Implement permitting best practices to provide solar developers and installers a transparent, efficient, and cost-effective approval processes that also protects your community's valuable staff time.
- **Planning, Zoning, & Development Regulations** - 20 credits, 160 pts
 - Provide maximum siting options for rooftop and ground-mounted solar projects while preserving your community's character and historic resources.
- **Inspection** - 6 credits, 80 pts
 - Protect public health and safety while ensuring compliance with state and local codes.
- **Construction Codes** - 6 credits, 55 pts
 - Adopt applicable codes and standards that provide clear guidance on solar installation requirements and solar-ready construction.
- **Solar Rights** - 7 credits, 50 pts
 - Protect the right to sunlight for current and future solar consumers through solar access ordinances or easements.
- **Utility Engagement** - 8 credits, 100 pts
 - Discuss and implement your community's goals for solar energy, community solar, net metering, and interconnection with local utility.
- **Community Engagement** - 18 credits, 225 pts
 - Support local solar energy development through public education and engagement efforts, group purchase programs, and participation in state-level solar conversations.
- **Market Development and Finance** - 15 credits, 190 pts
 - Lead the way with solar installations on public facilities and grow the local solar market by providing information on, or expanding, local financing options and incentives.

SolSmart Technical Assistance



- SolSmart TA providers work with elected officials, local government staff, and community members to help communities update processes using established best practices
- Funded by SolSmart, no-cost to the community
- Communities need to commit staff time to working with SolSmart
- Communities must demonstrate a commitment to achieving designation
- TA Delivery
 - Online – resource library, email, webinars, templates
 - Phone – conference calls
 - In person – site visits, technical workshops

SolSmart Participants



❑ 300+ participating AHJs

❑ 330 current designees

❑ Designees in 41 states

❑ Over 81 million Americans



Over **300** American communities have been recognized for their solar energy achievements.



108 launched group purchase campaigns

165 installed solar on municipal or county buildings



44 launched community solar programs

32 have solar installations on brownfields or landfills



95 use online permitting to speed up project approvals



SOLSMART.ORG



Sullivan County – Silver Designation



Celebrating 300 Designees Nationwide

Sullivan County, NY

SolSmart Silver

Open for solar business!

- Worked with ICLEI - Local Governments for Sustainability to Expand Solar Energy Growth.
- Invested in 2 MW in solar capacity county-wide.

#BESOLSMART

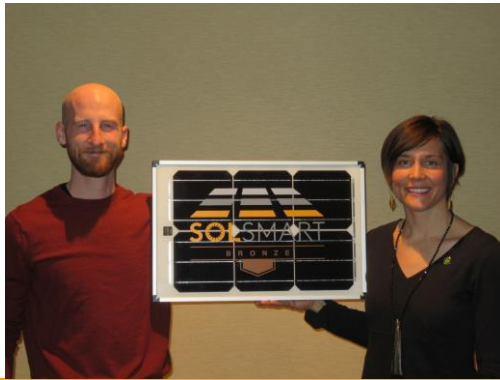
- Supported by ICLEI which served as a SolSmart Advisor to the county and nine peer communities.
- Received credit for encouraging other municipalities to adopt the New York State Unified Solar Permit.
- Hosted a regional training on solar best practices in permitting for communities in the county.
- Awarded credit for its efforts with Solarize campaigns, community solar projects installed and regional collaboration for solar development.

New York SolSmart Designated Communities



Community	Designation Level	Special Awards Earned In
Brookhaven, NY	Bronze	
Erie County, NY	Gold	Community Engagement
Huntington, NY	Bronze	
New York, NY	Gold	Permitting, Inspection, Community Engagement, Market Development
Orange County, NY	Gold	
Saratoga Springs, NY	Silver	Planning, Inspection
Suffolk County, NY	Gold	
Sullivan County, NY	Silver	
Tonawanda, NY	Silver	
Warwick, NY	Gold	

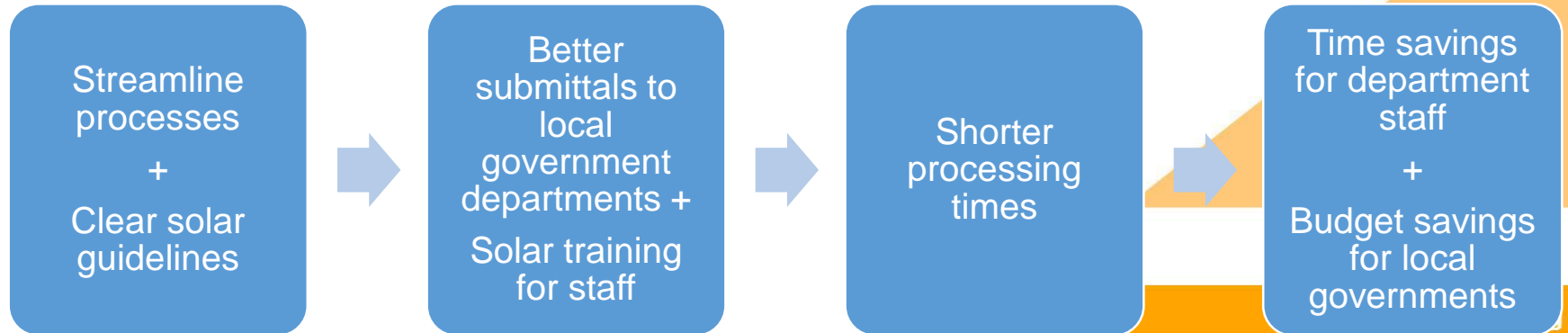
Celebrating SolSmart Communities Nationwide



SolSmart Benefits



- SolSmart technical assistance and designation helps communities create better local markets for solar energy by cutting red tape, making it easier and more affordable for homes and businesses to install solar.
- National recognition as a leading solar community
- SolSmart Plaque to proudly display in City Hall
- Promote local, well-paying jobs
- Improve financial returns for homeowners and local businesses
- Achieve local climate and energy goals



Q&A



Please visit www.solsmart.org
or contact

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202-866-0933