



Transitioning to a Green Energy Economy: How Municipalities Can Lead the Way and How NYSERDA Can Help

SUNY/Orange, Newburgh Campus
November 20, 2013

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What is NYSERDA?

- New York State Energy Research and Development Authority
- Established by the New York State Legislature in 1975
- Address the State's energy & environmental challenges



Mission

Advance innovative energy solutions in ways that improve New York's economy and environment.

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Energy Innovation Solutions

- New York State's Energy Office
- Mission: "Advance innovative energy solutions in ways that improve New York's economy and environment."

What do we do?

- Energy Efficiency
- Renewable Energy
- Research & Development
- Energy Analysis
- Green Jobs
- Legislation/Policy
- Transportation



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- Major areas where NYSERDA focuses its efforts.



Transitioning to a Green Energy Economy

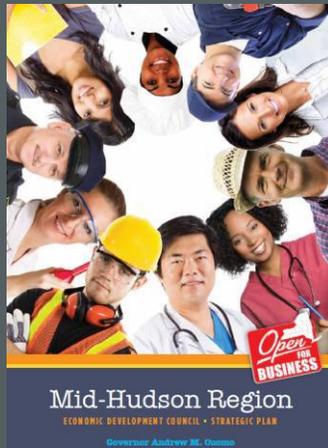
- Regional Level
- Community Level
- Building Level

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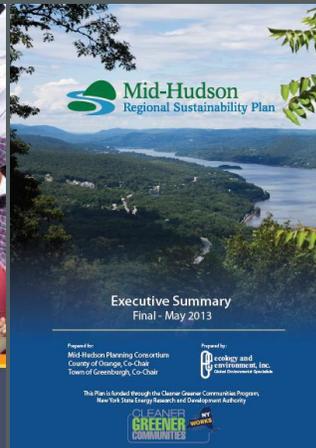
- Presentation framework: regional to community to building
- Identify opportunities both for municipalities and for their citizens

Leading the Way

Transitioning at the Regional Level



Strategic Plan



Sustainability Plan



- Strong framework provided by the plans
- Congratulations on a job well done
 - NYSERDA provided the opportunity
 - The region made the most of it
- Terrific resource

Sustainability Plans

- Greenhouse Gas Emissions
- Transportation
- Land-use and livable communities
- Energy efficiency
- Renewable energy
- Waste management
- Water management
- Climate change adaptation
- Governance
- Economic development



- Issues addressed by the Sustainability Plans
- NYSEERDA also focuses on regional and State level efforts to create a stronger market platform for the Clean Energy Economy
 - Example: recently developed model permitting guidelines for Photovoltaic (PV) Systems
 - Benefits: reducing costs associated with PV installations, easier for marketplace to serve.
 - Opportunity/Need: Stakeholder/Municipal input in the development process

Leading the Way

Transitioning at the Community Level

- Municipalities set the Framework
 - Planning
 - Zoning
 - Permitting
 - Codes
 - Infrastructure

The logo for nyserda Energy Innovation Solutions, featuring the word "nyserda" in a bold, lowercase, sans-serif font, with "Energy Innovation Solutions" in a smaller, lighter font underneath. The logo is positioned in the bottom right corner of the slide, partially overlapping a white curved graphic element.

- Framework for many of the desired activities for a green energy economy gets set at the community level.
- Important to define the goals and strategies at the local level and understand how they fit with the regional level.

Climate Smart Communities



CSC website: www.dec.ny.gov/energy/50845.html

CSC Toolkit Webinar: Wednesday, December 11,
10:30am-12:00

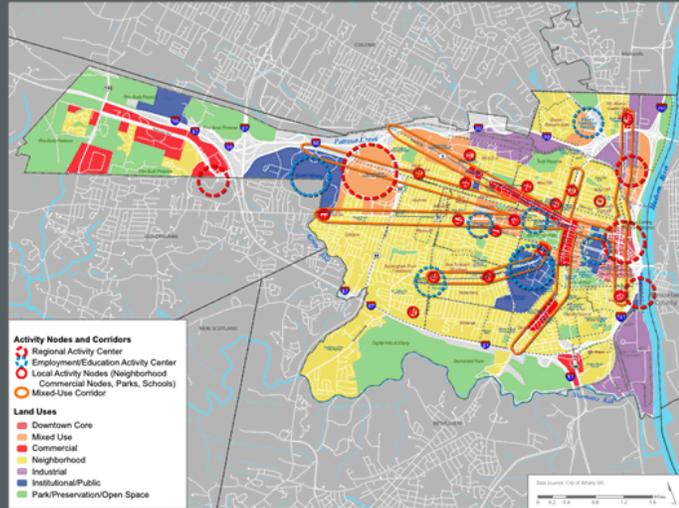
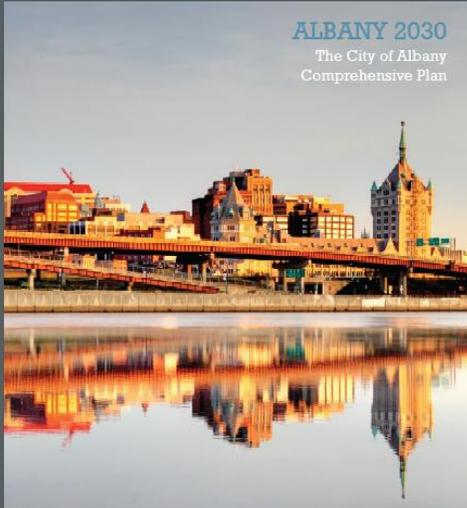


- Can help communities implement an appropriate framework.
- Jointly sponsored by 6 NYS Agencies: NYS DEC, NYSEERDA, *Public Service Commission; Department of State; Department of Transportation; and the Department of Health*
- Climate Smart Communities (CSC) Pledge elements focus on:
 - GHG reduction
 - smart growth
 - investment in a green innovation economy
- New certification component launching in early 2014. Will recognize communities that have implemented the pledge.
- More information available at the Climate Smart Communities website.
- This region has more communities that have taken the Climate Smart Communities pledge than any other region of the State
 - Over 40 communities signed on

- NYSERDA support through Regional Climate Smart Community Coordinators
 - Provide technical assistance and tools
 - Help communities explore whether the program is a fit for them
 - Help implement the pledge components
 - Coordinator for the Mid-Hudson. Contact information available through Jen Manierre.
- Land use tool kit
 - Allows New York communities to find recommended practices in the areas of land-use, transportation policy, green building, infrastructure investment, green infrastructure, and housing policy based on local characteristics and priorities
 - CSC Tool Kit Webinar in December on the land use toolkit and on Electrical Vehicle permit streamlining
- CSC listserv
 - Hosted by DEC
 - Sends out alerts on funding, educational and networking opportunities for local governments
 - Do not have to be a Climate Smart Communities participant to be on the listserv.
 - Information on the listserv is available on the CSC website page.
 - If you sign up soon, you will get the notice and registration link for the CSC Toolkit webinar when it gets sent

Cleaner Greener Communities

Planning



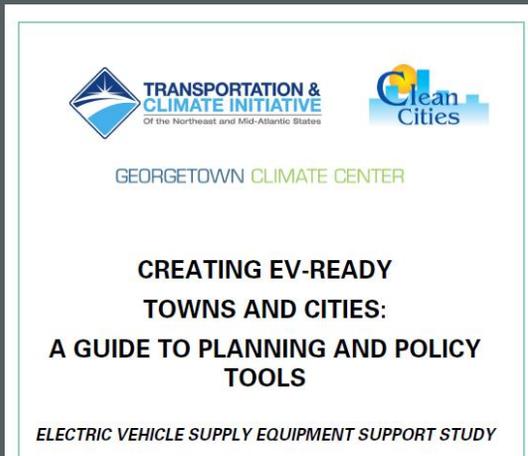
Source: Albany 2030 Draft Plan
<http://albany2030.org/learn/draft-plan>

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- Additional NYSERDA support through Governor's Cleaner Greener Communities Program
- Planning component supports local planning efforts, for example creation or revision of comprehensive plans focusing on issues such as updating zoning ordinances, addressing climate resiliency, or Smart Growth-related efforts
- Intent is to save energy, increase use of renewable energy, reduce greenhouse gas emissions, reduce particulate matter emissions, avoid future emissions, or reduce future energy use
- Competitively funded through the State's Consolidated Funding Application
- Municipal governments will be able to apply through the next round of the CFA

Cleaner Greener Communities

Permitting



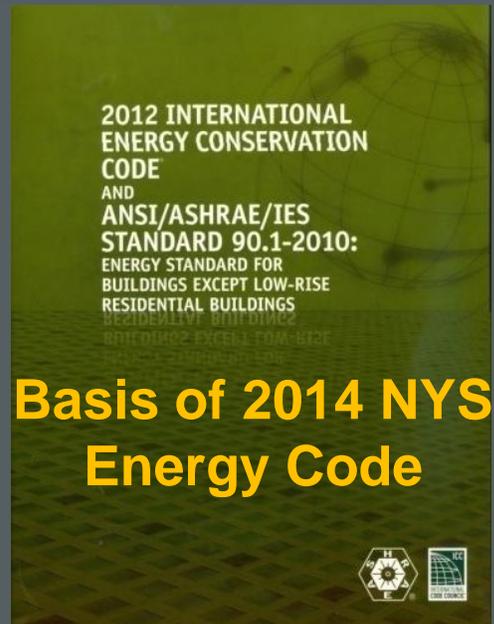
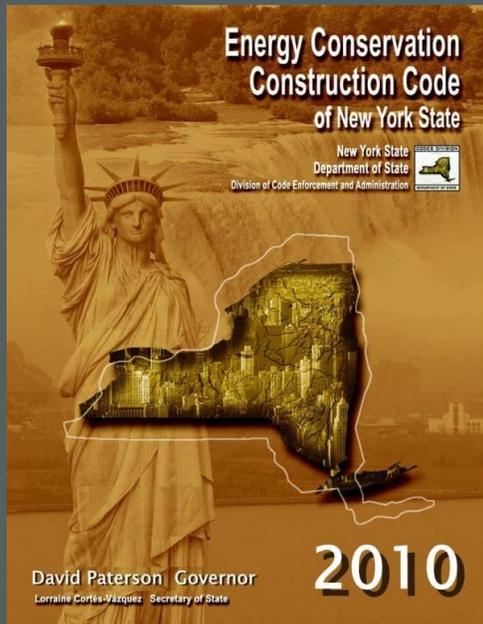
Photovoltaic (PV) Systems & Electric Vehicle (EV) Charging Stations

Funding: Adoption of model streamlined permitting and other ordinances

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- Support for streamlined permitting or model ordinances through the Cleaner Greener Communities Program
- Municipal adoption of streamlined permitting for PV Systems and EV charging stations
- NYSERDA will provide between \$2500 and \$10,000 to applicants who have adopted the model ordinances
- Open enrollment opportunity (meaning you can apply at any time) through the CFA open through September 2014
- Authorities having jurisdiction for permitting, land use planning, and zoning are eligible applicants.
- All work will need to be completed prior to application submittal
- Guidance documents are available on NYSERDA's website for both PV and EV.

Energy Code



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- The Energy Code is another important area where municipalities have a leadership role and NYSERDA can provide support.
- There is a new Energy Code coming in 2014.

2014 Changes

- Less leaky buildings
- Higher insulation values
- Performance testing at completion



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- The changes to the code will require better sealed buildings, more insulation, and performance testing at completion.

Value



- Better buildings
- Reduced Energy Costs
- Environmental Protection

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- These changes should result in better buildings, lower energy costs and better environments.

Roles and Value

Municipal Role

Ensure state standards are met

Cooperative in construction process

Quality code enforcement

Municipal Value

Better buildings hold their value (taxes)

Long-term reduced municipal costs (ex., water)

Owner Value

Better buildings hold their value (resale)

Reduced energy costs



- The municipalities' role is critical as to whether the benefits of the code are realized and for delivering buildings that hold their value and reduce operating costs.

Challenges: Indoor Air



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- As the Energy Code advances, it brings some challenges with it. Proper application and coordination with the other codes is critical to avoid mold and other indoor air quality issues.

Challenges: Ensuring Quality



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- Good quality installations are critical to deliver comfort and cost savings.

Challenges: Vulnerability of Tighter Buildings



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- And understanding of the building science is critical to avoid damage.

Municipal / NYSERDA Partnership

Municipalities Provide Resources

- Adequate Staff, Training, Support
- Consider 3rd Party Involvement
- (Advanced) Above-Minimum Codes

NYSERDA Provides:

- In person and online training
- Direct municipal support programs
- Publications for Code Enforcement Officials
- Updates launch early 2014



- To deliver the benefits, it is essential for municipalities to provide adequate staff training and support for code enforcement including the energy code.
- More municipalities are considering 3rd party involvement for inspections, and some municipalities are exploring or adopting above minimum codes.
- NYSEERDA can help. We will be offering in-person and online training, direct municipal support programs, and publications for code enforcement officials.
- Announcements later this year.

Infrastructure

Projects

- Municipal Water/Wastewater
- Transportation
- Street Lighting

Assistance

- Best Practices & Information Resources
- Cost-Shared Studies
- Financial Assistance



- Infrastructure project examples: municipal water wastewater projects, transportation projects, and street lighting.
- The savings opportunities in these areas are significant.
- NYSEERDA has a lot of information to share on best practices from studies and demonstrations.
- No funding currently available for transportation.
- For municipalities that pay into the System Benefits Charge, NYSEERDA can cost-share feasibility studies and provide financial assistance on municipal water/waste water and street lighting.
- In the municipal water wastewater area
 - recognition of the vast amounts of energy embodied in the waste
 - opportunity for significant energy recovery creating localized power plants
 - treatment plants potentially net zero energy or even net positive energy centers
 - transforms a negative “waste” to a positive “energy resource”

Cleaner Greener Communities

Large-Scale Sustainability Projects

- Contribute to community resiliency
- Reduce greenhouse gas emissions



Eligibility: All public, private and non-profit entities



- Cleaner Greener Communities has a component that supports large scale sustainability projects
- Competitively funded
- Will be offered through the State's next competitive Consolidated Funding Application cycle
- Eligible applicants include all public, private and non-profit entities
- Vision: support projects which address sustainability at a community level, combining multiple elements such as transportation, efficiency, renewable energy, and livable communities

Leading the Way

Transitioning at the Building Level

- New Construction & Existing Buildings
- Commercial, Industrial, Multifamily, Residential
- Campuses



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- NYSERDA has many, many programs that provide technical assistance, market assistance, and financial incentives to support energy efficiency and renewable energy.
- The programs serve Commercial, Industrial, Multifamily, and Residential buildings.
- They serve Market Rate and Low Income buildings.
- They serve small and large projects: owner, developer or tenant occupied, institutional, and campuses.

Efficiency First, Then Renewables

Start with energy efficiency....



....then think about solar!!

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- Generally speaking, energy efficiency measures are less expensive to implement than renewable energy, which means it makes sense to start with energy efficiency.
- By reducing your load through efficiency you reduce the amount you have to spend on the more expensive renewable energy.

NYSERDA Assistance

Energy Efficiency

- Building Related Equipment & Systems
- Electric & Gas
- Fuel Oil for Residential, Small Business & Non-Profit



Omega Institute, Rhinebeck NY

Renewables

- Solar PV
- Solar Thermal
- Wind



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Energy Efficiency

- NYSERDA provides assistance for building and process related equipment and systems (i.e., insulation, lighting, air-conditioning, etc.) which are electric or gas-fired. Some of this assistance is limited to SBC paying customers.
- For residential customers, multifamily, small business and non-profits, NYSERDA can also provide assistance for other fuels
- NYSERDA's assistance includes Incentives & Financing, Technical Assistance, and Information & Resources.
- Starting early next year, NYSERDA will be partnering with Con Edison to provide additional financial assistance for projects in Con Ed territory that significantly reduce electrical demand capacity provided the projects are installed before the end of 2016.

Renewable Energy

- NYSERDA provides assistance on solar PV, solar thermal and wind.
- The assistance includes incentives to installers and guidelines and information to help customers understand what they will need.

Economic Development Growth Extension

Outreach and Support for all NYSERDA Programs

- Locally-based
- One-on-one assistance to match energy projects with funding
- CFA assistance
- Informational webinars and conferences
 - “Getting to the Bottom Line: Real World Strategies to Save Dollars & Energy”
 - “Did You Know...?” webinars on Solar & Lighting, Emerging Technologies and other topics



Locally-based NYSERDA EDGE contractors

- Can help you navigate NYSERDA's programs and find the best match
- Introduce Pat Courtney Strong and Jeff Domanski.
- The EDGE contractors are very familiar with NYSERDA's programs
- If you are thinking about a project be sure to talk with them early to optimize the assistance NYSERDA can provide.
- They can also help fill out the consolidated funding applications, where needed
- They offer informational webinars and conferences on an ongoing basis, A couple of their upcoming events are identified on the slide. Be sure to take advantage of this great resource.

For more information...

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518-862-1090 x 3406

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www.nyserda.ny.gov nyserdacodetraining.com



- Contact information for the EDGE contractors and for Jennifer Manierre of my staff, who you can contact for questions on Climate Smart Communities, Cleaner Greener Communities, or Energy Code support.
- Thanks for your time and attention.

Thank You!

Priscilla Richards, LC
Program Manager
NYSERDA

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