

Empowering you to make smart energy choices

Presented by: Enoch Lenge, Northeast Utilities

Zero Net Energy: Moving from Homes to Community



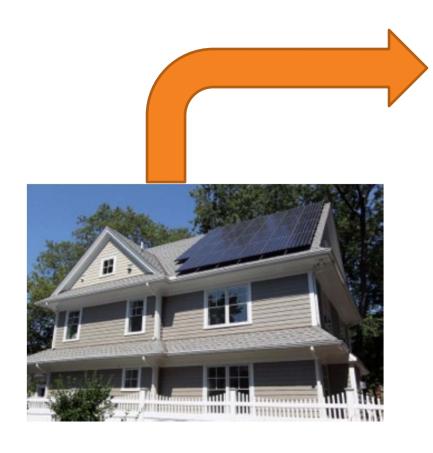








Moving from homes to communities!







What is a Zero Energy Community?

- Energy efficiency
- Renewables energy
- Sustainability
- Small scale
- Large scale
- Stakeholder engagement
- The industry will continue to define

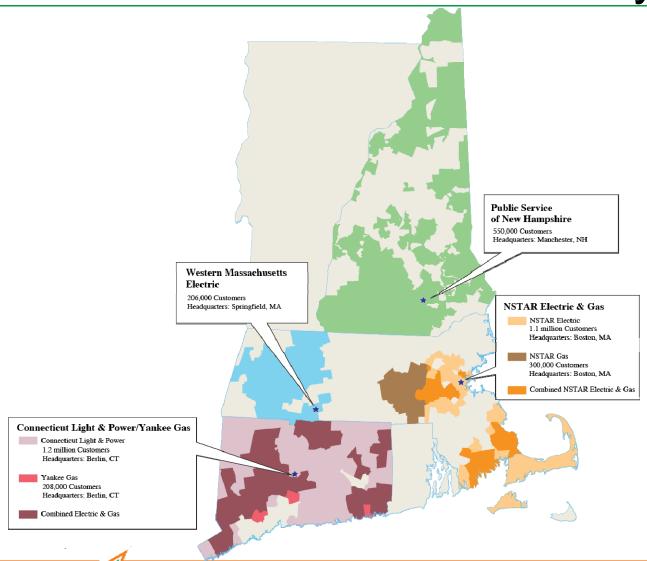


What is Energize Connecticutsm?

- Statewide branding initiative to promote the use of clean, affordable energy.
- Energize Connecticut programs are a partnership of the Energy Efficiency Fund, the Clean Energy Finance and Investment Authority, the state, and local electric and gas utilities
- Programs funded by a charge on customer energy bills



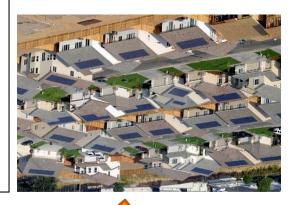
Northeast Utilities Service Territory



What's working to get to ZNE communities?



- Communities Program
- 2. Market transformations initiatives
- 3. ZNE Programs





Clean Energy Communities Program

60% of towns have signed the pledge

Ansonia, Ashford, Avon, Barkhamsted, Beacon Falls, Berlin, Bethel, Bethany, Bethlehem, Bloomfield, Branford, Bridgeport, Bridgewater, Bristol, Brookfield, Cheshire, Chester, Clinton, Cornwall, Coventry, Danbury, Derby, Durham, East Hampton, East Haven, Easton, Enfield, Essex. Fairfield, Farmington, Glastonbury, Goshen. Greenwich, Guilford, Hamden, Hampton, Hartford, Harwinton, Hebron, Killingworth, Lisbon, Litchfield, Madison, Mansfield, Middlefield, Middletown, Milford, Monroe, New Britain, New Haven, New London, New Milford, Newtown, North Branford, North Haven, Norwalk, Old Saybrook, Orange, Oxford, Plainville, Plymouth, Portland, Prospect, Rocky Hill, Roxbury, Salem, Scotland, Seymour, Sharon, Shelton, Somers, Southbury, Stafford, Stamford, Stratford, Suffield, Thomaston, Trumbull, Warren, Washington, Waterbury, Watertown, West Hartford, West Haven, Westbrook, Weston, Westport, Wilton, Windham, Wolcott, Woodbridge & Woodstock



93 Clean Energy Communities (through 3/5/2014)



Clean Energy Communities Program

How our program works:

- Plan
 - Town signs pledge (20% energy reduction by 2018)
 - Jointly creates plan
 - Program offers benchmarking
- Implement
 - Used established EE programs
 - Get the word out (grassroots outreach and marketing)
- Reward
 - Grants
 - Publicize success



Next steps for CEC program

Expand program:

- Massachusetts NSTAR, NSTAR Gas, WMEO
- New Hampshire Public Service of New Hampshire

Target Zero Net Energy Communities:

- Identify the champions
- Engage the proper stakeholders
- Design plan/pilot



Market Transformation

Upstream Programs:

- Instant rebates
- Manufacturer, distributor, and retailers
- Influencing stocking and marketing decisions

Customer Engagement Programs:

- Customer-facing portal for managing energy use and decisions
- Behavior program Home Energy Reports



CTZERO ENERGY CHALLENGE





CT ZERO ENERGY CHALLENGE



What is the CT Zero Energy Challenge?

- Annual design build competition started in 2010
- Promotes builders and homeowners to achieve near zero energy homes
- Education project team throughout design and construction
- Marketability
- Learn from fellow participant's best practices



CT ZERO ENERGY CHALLENGE



2013 Zero Energy Challenge Complete:

- 11 homes participated
- 5 winners were announced December 29th
- Ceremony and awards presentation March 27th
- Homes were graded based on 4 different categories:
 - Lowest overall HERS Index
 - Lowest HERS Index w/o renewable technology
 - Most affordable project (cost/SqFt)
 - Lowest annual operating costs



Project Example: Affordable Housing Community

Yale Acres Zero Energy Community – Meriden, CT

- 163 residential units
- Community building/warming center
- First model building completed January 2014







Project Example: Zero Energy Community/Microgrid

Great Pond Sustainable Community – Windsor, CT

- 653 acres
- 4,010 residential units
- 850,000 sq/ft commercial spaces
- First 350 units to start construction Summer 2014







The design of neighborhoods within Great Pond draws on the character of historic towns and villages in the region.

The plan creates a diverse mix of residential choices, offices, neighborhood retail, civic and institutional uses.

- 653 acres total site area
- 365 acres of open space
- 4010 residential units
- 85,000 sq. ft of neighborhood commercial
- » 640,000 sq. ft. of office
- 128,000 sq. ft. of civic and institutional uses

Components for future ZNE communities?



- Communities Program
- 2. Market transformations initiatives
- 3. ZNE Programs





Questions & Contact Information

Enoch Lenge

Northeast Utilities

107 Selden Street

Berlin, CT 06037

Email: enoch.lenge@nu.com

Phone: (860) 665-5369

Fax: (860) 665-3030











