



Efficiency Vermont



# Net Zero Communities

Paul Markowitz, Community Energy Program Manager  
Efficiency Vermont

# Net Zero Community: Defined

- A community that uses as much energy as it produces from deep efficiency improvements and (local) renewable energy sources
- Covers all sectors - residential, commercial/industrial, institutional, transportation

# Why Net Zero Community?

- Overall framework at the community level for transitioning away from fossil fuels
- Net Zero is an attractive long-term goal that captures people's imagination
- Rallying cry to bring together diverse stakeholders
- State Comprehensive Energy Plan goal: 90% renewables by 2050

# Net Zero Communities: UC Davis West Village

- UC Davis teamed with private developer to develop 315 apartments
- Meets energy needs by using aggressive energy efficiencies to reduce consumption and generating renewable energy on site.
- Contracted with a solar installer to install a 5 MW photovoltaic system
- About 800 students, faculty and staff served



*Quality of Place*  
Providing homes, recreation and  
neighborhood retail for students,  
faculty and staff

# Net Zero Communities – Fort Collins, CO

- Proposes to be a model community for a leading and replicable net Zero Energy District.
- Mission -- transform the downtown area and the main campus of Colorado State University into a net Zero Energy District
- Partnership between local government, academia and industry



# Dual Approach Toward Net Zero

- **Kick-start:** develop list of kick start activities that the community move on right away
- **Net Zero Plan:** prepare a a long-term roadmap for priority actions
  - ❑ Includes visioning and broad-scale community engagement
  - ❑ Timeline and goals and milestones

**Key: Use net zero to take your efforts to the next level**

# Opportunities for VT Communities

## Municipal/School Energy Consumption

- Municipal energy bill
- Street lighting
- Wastewater and water treatment facilities
- Buildings



Castleton WWTF

# Opportunities for VT Communities

## Municipal Governance



- Energy code and promoting energy efficiency new construction
- Town master plan and regulatory bylaws (e.g. zoning and subdivision)
- Locational efficiency – e.g. reducing transportation energy use



# Opportunities for VT Communities

## Residential and Commercial Energy Use and Generation

- Working with residences and businesses to address their energy use
- Awareness raising/ public education and awareness
- Community programs to increase opportunities; e.g. community solar, home energy visits



# Statewide Assistance Programs Green Communities - MA

- Goal: Help all municipalities find clean energy solutions
- State provides technical assistance and financial support – for both efficiency and renewables
- Communities apply to become a designated Green Community – eligible for grants.



# Statewide Assistance Programs Local Government Partnerships - CA



- Works in partnership with municipalities to promote efficiency and renewables by:
  - Leading by example in municipal facilities
  - Leading the community
  - Addressing the CA Energy Efficiency Strategic Plan
- Offers increasing incentive levels as local governments reach energy savings milestones
- Implemented by Southern California Edison

# Efficiency Vermont Resources and Programs

- Schools: Whole School Energy Challenge
- Municipalities: Municipal Streetlight LED Replacement, wastewater audits Evergreen Fund
- New construction: Residential and Commercial New Construction assistance and incentives
- Existing residential and commercial: Home Performance with ENERGY STAR; Building Performance
- Commercial/industrial: custom assistance program

# Questions to Consider

- Do you see Net Zero Communities as a viable framework to help your local energy committee promote efficiency and renewables?
- If so, what kind of assistance do you need to help you move forward?
- How can Efficiency Vermont help?