

# Sustainability Lessons from a Small College Town

Eric Norenberg

Oberlin, Ohio City Manger





# Eric Norenberg, ICMA-CM City Manager

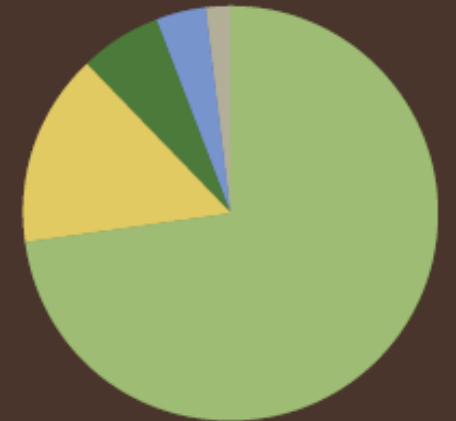
- **Goal: Zero Carbon Emissions by 2050** - For 10 years, Oberlin has been pursuing a goal of becoming a carbon positive community
- **By 2015, we will be halfway there-** I will share where we've been, what we've accomplished and what's next
- **Our experience can be replicated** – We learned from others and hope you can learn from us



## About Oberlin

- Approximately 4.4 square miles
- Home to Oberlin College (2,900 students), yet in rural setting
- 30 minutes SW of Cleveland;  
15 min. S of Lake Erie
- Full service community, including electric, water and wastewater utilities, refuse/recycling collection

8,286  
PEOPLE



73% white 14.8% African American 6.5% two or more races  
4% Asian American 1.7% other

\$47,334  
median household income

24% of Oberlinians live at or below the poverty level

\*based on the 2010 census



# Timeline

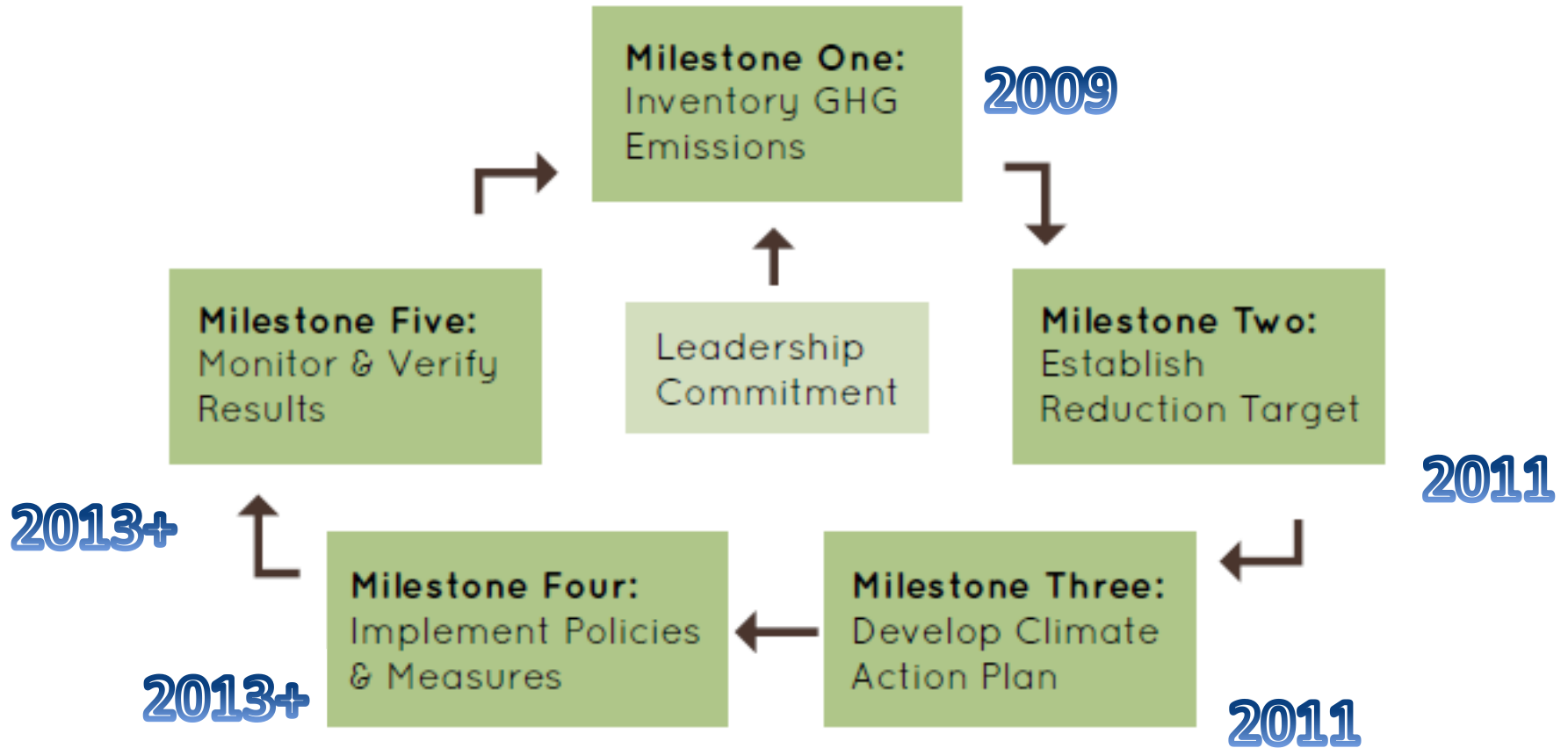
- 2001 – City Council adopts its sustainability policy
- 2004 – Comp. Plan includes sustainability as key theme
- 2007 – City joins ICLEI (now Local Gov'ts for Sustainability)
- 2008 – City Council votes to withdraw from AMP-Ohio's coal-fueled generation project and pursue renewable power
- 2009 – City and Oberlin College initiate *The Oberlin Project* to improve the resilience, prosperity, and sustainability of the community
- 2009 – First Greenhouse Gas Inventory is completed

- 2010 – City and College sign MOU with Climate Positive Development Program (CPDP), a partnership between the C40 Cities Climate Leadership Group, the Clinton Climate Initiative (CCI), and the U.S. Green Building Council.
- 2011 – City’s first Climate Action Plan (CAP) is adopted committing the community to GHG reduction goals:
  - 50% reduction - 2015
  - 75% reduction - 2030
  - 100+% reduction – 2050
- 2013 – First update to CAP approved, second GHG inventory underway, and Oberlin is the first CPDP in North America to move to *Participant* status.



**CLIMATE<sup>+</sup>**  
Participant

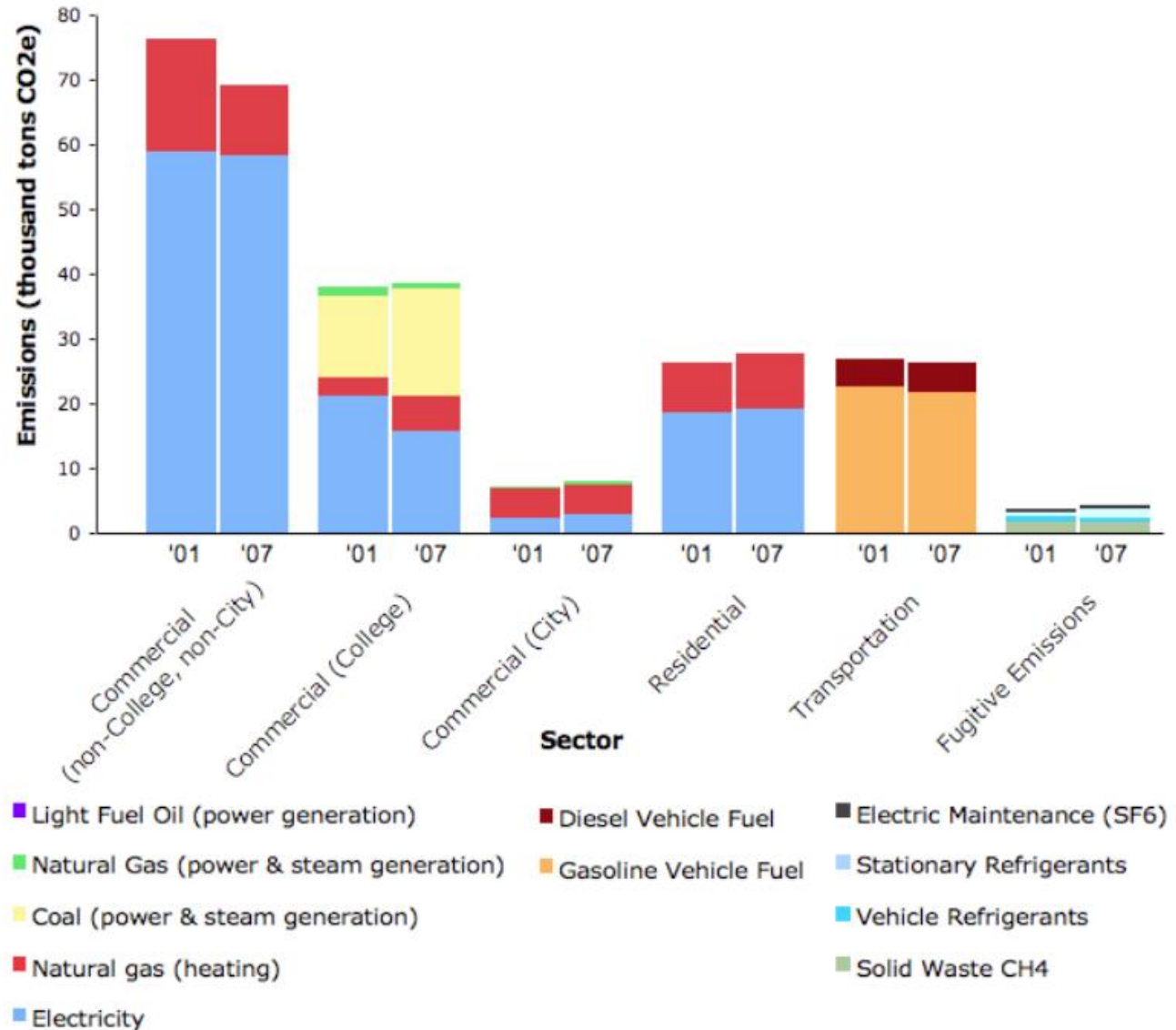
# Following ICLEI Cities for Climate Protection model:



# Greenhouse Gas Inventory Results

2007 data compared w/2001

Community-Wide Emissions by Sector and Energy Source



# Shift to renewable energy

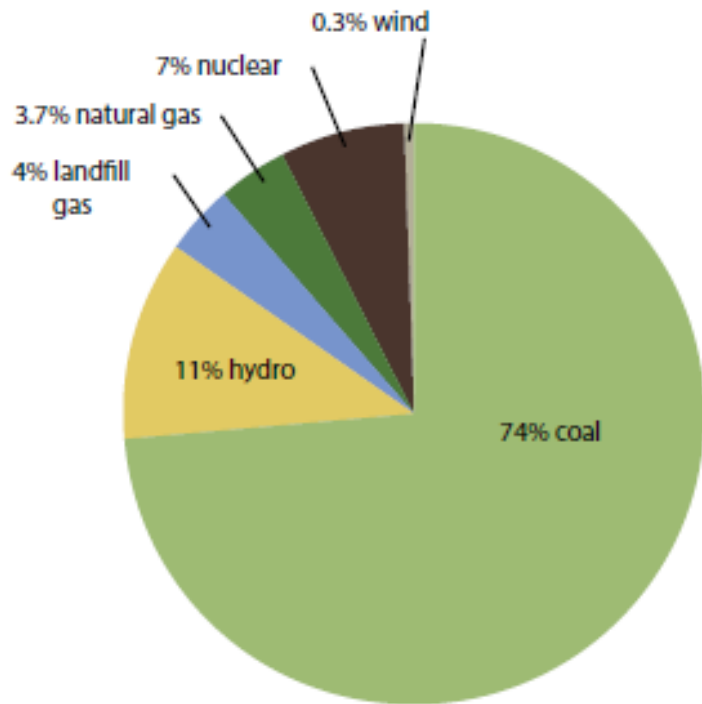


Figure 4: Oberlin Fuel Resources for 2007.

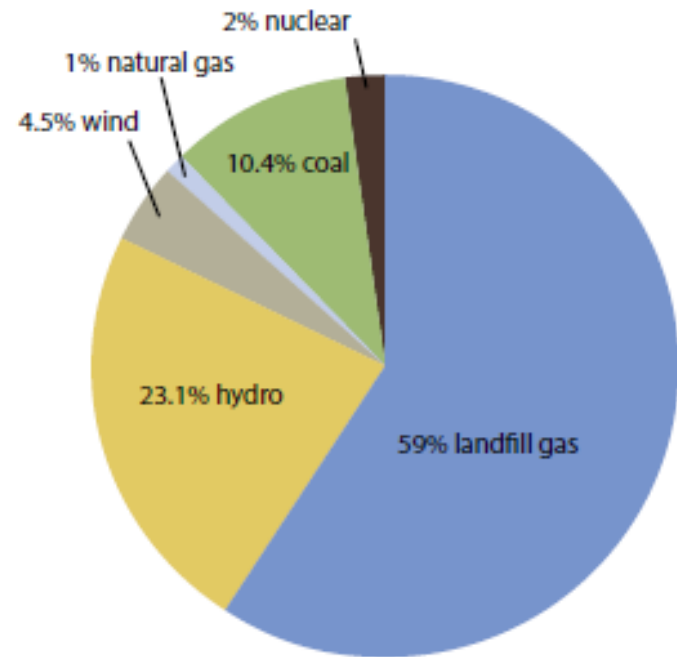


Figure 5: Oberlin Fuel Resources for 2015.

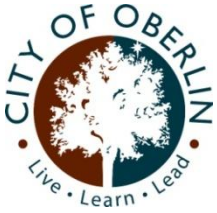




# 2015 Energy Portfolio

- 86.4% Renewable Resources:
  - Landfill Gas – 59%
  - Hydro – 23%
  - Wind – 4.1%
  - Solar - 0.3%
- Market – 13.6%, 2% Nuclear



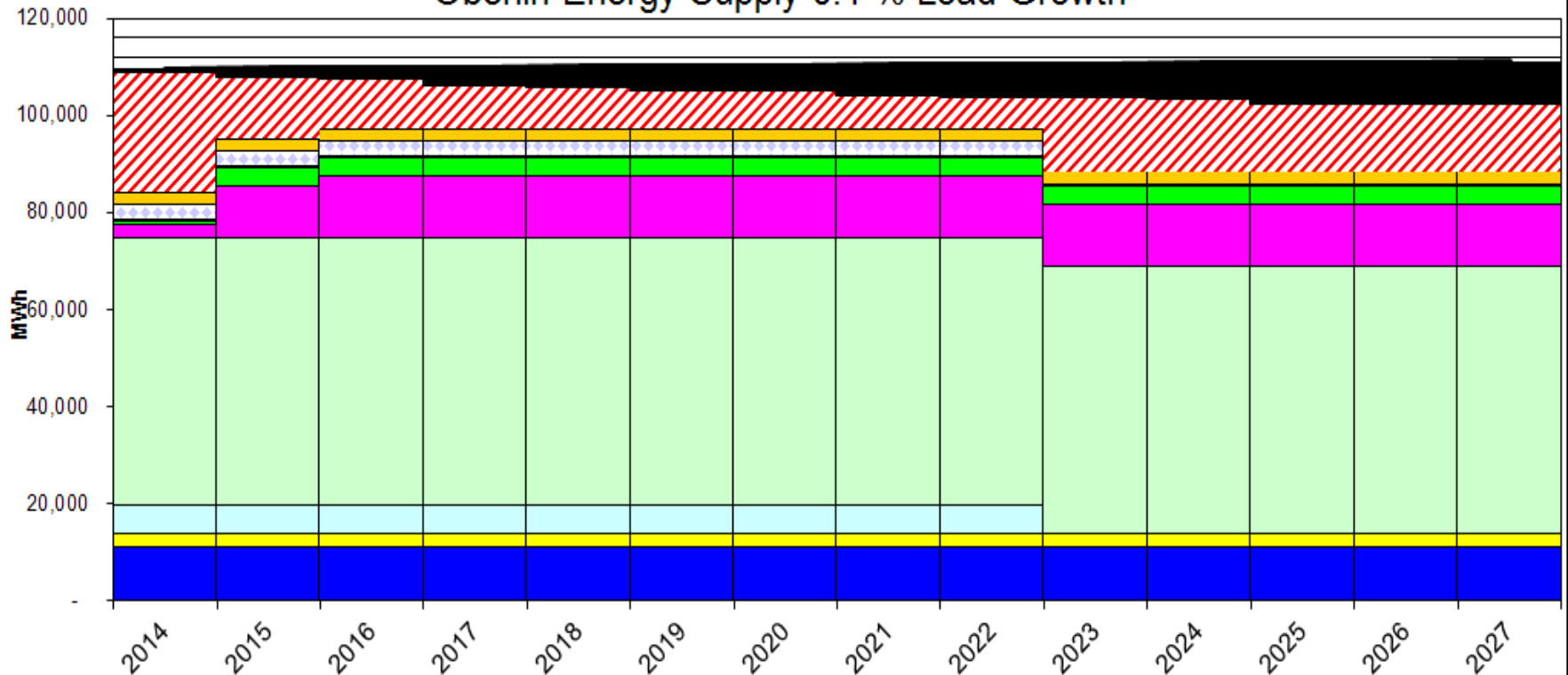


# Key Issues

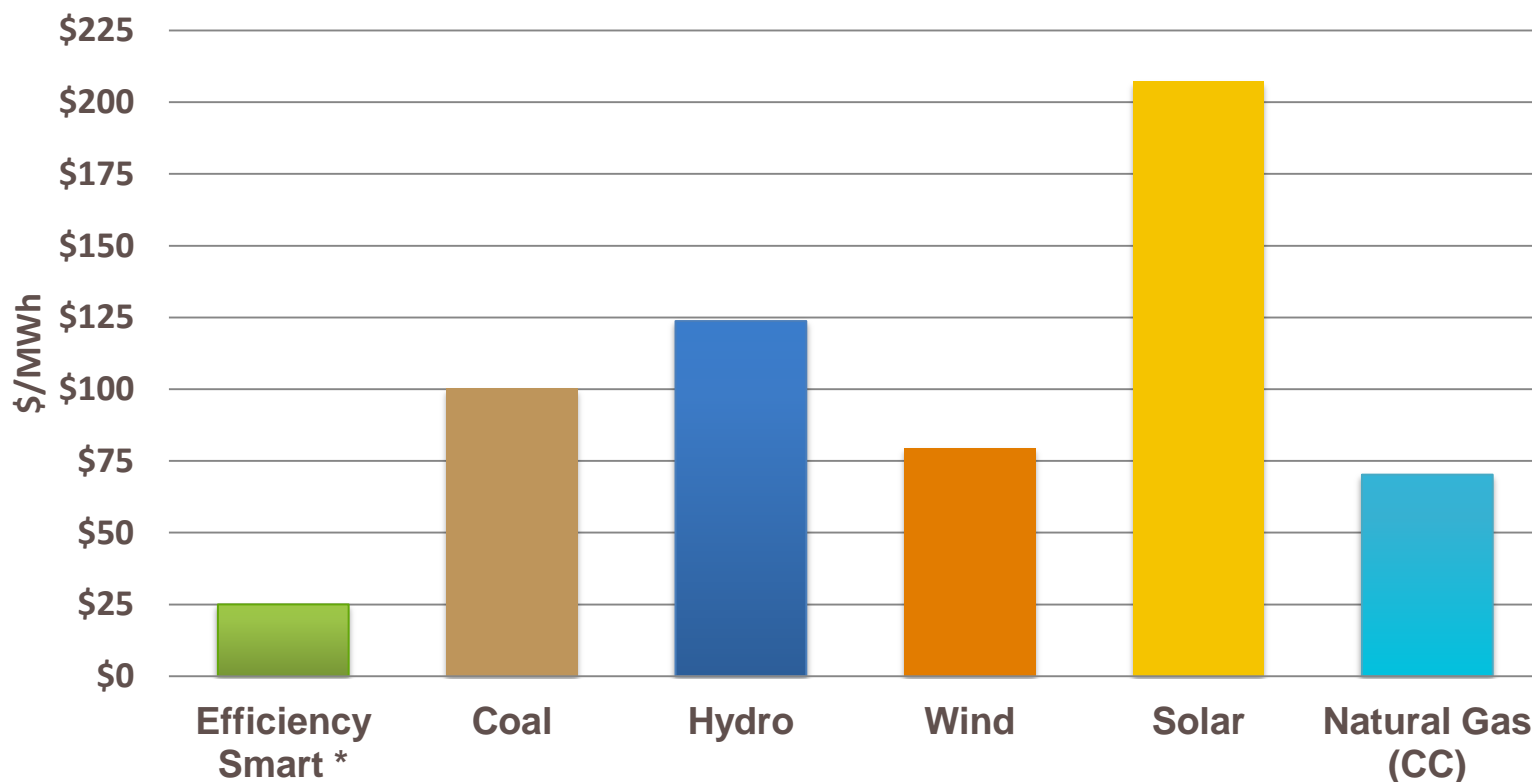
- As we move towards more expensive renewable power, we want to help offset cost increases with efficiency and conservation
- Since we will achieve the milestone of 50% reduction in GHG emissions by switching to renewable electricity resources & “low hanging fruit”, the hardest 50% is yet to come
- How does City staff pursue such goals with a shrinking budget and hiring freeze?

# Efficiency Fills a Need in Oberlin's Power Supply Portfolio

Oberlin Energy Supply 0.1 % Load Growth



# Efficiency is Our Lowest-Cost, Least-Risk New Power Supply Resource Option

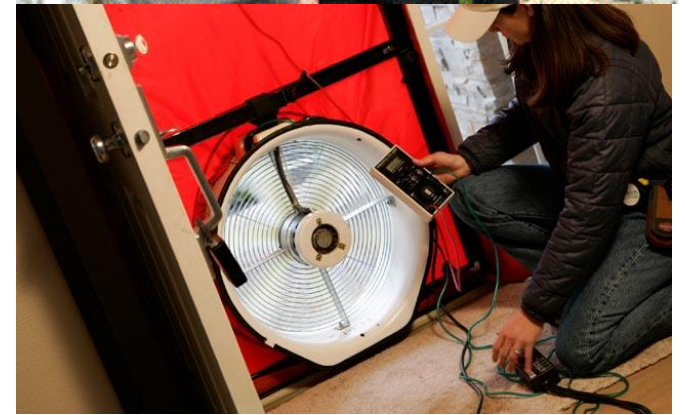


\* Efficiency Smart cost = Average levelized cost for energy efficiency programs through the country assuming a 10.5 year average measure lifetime and based on 2011 and 2012 ACEEE State Scorecard data. This average levelized cost also reflects the decrease in levelized costs actually experienced by the Efficiency Smart program during its initial contract term.



# Efficiency/Conservation

- Light Bulb Brigade – 10,000 CFLs
- AMP “Efficiency Smart” program
  - Commercial and residential discounts and rebates, technical assistance
  - 2,669 CFLs distributed at events, plus quarterly coupons mailed to residents
- Net metering for solar electricity
- Matching grants for energy audits for commercial customers (past)
- Sustainable Reserve Fund supports new initiatives





- Partnership between a local non-profit groups and OMLPS (from the Sustainable Reserve Fund) to provide funding for insulating low-income qualified homes
- 28 homes have been insulated by POWER since 2009
- Reduced heating/cooling costs for low income residents
- Reduces CO2 emissions from lower natural gas consumption
- In 2013, Energy Advocate hired:
  - Free Heat-loss Inspections and Efficiency Audits for all residents (56 through June)



- Single point of contact to assist residents in identifying efficiency programs, applying for rebates, grants or loans, locating and communicating with contractors, all in the comfort of their home (154 through June)
- 40 more appliance rebates thanks to POWER
- POWER has help residents engage in Columbia Gas insulation program (since 2012):
  - 31 home energy audits (17 via Energy Advocate)
  - 16 homes weatherized (6 via Energy Advocate)



The logo features a green circular icon with three curved arrows forming a clockwise cycle. To its right, the word "EFFICIENCY" is written in orange, and "\$MART" is written in green.

# EFFICIENCY\$MART

- Managed by Vermont Energy Investment Corp. via American Municipal Power
- Goals to reduce 1,424 MWh over 3 years
- After 2.5 years, Oberlin has a 4,907 MWh reduction
  - 345% of goal - largest of any community in program
- Customer Savings:
  - Annual: \$456,706
    - Residential: \$9,142, Commercial: \$447,564
  - Lifetime: \$4,334,372
    - Residential: \$53,980, Commercial: \$4,280,392





- Rebates Paid:
  - Commercial Customers: **\$299,141** for Lighting, HVAC, and Mechanical improvements
  - Residential: **\$13,440**
    - » Additional **\$3,280** in local *Super* Appliance Rebates paid to 45 customers since November
  - City: **\$1,145** for Lighting /HVAC improvements
    - » + Possible \$46,000 rebate for LED streetlights



# The Oberlin Project

- Partnership of City and Oberlin College aims to revitalize local economy, eliminate carbon emissions, restore local agriculture/food supply, and create a sustainable/ resilient base for economic and community development.
- Collaboration with Oberlin College and other partners via the Oberlin Project enabled work on the CAP, GHG inventory, etc.
- Oberlin Fleet and Fuel Emissions Reduction Strategy – Includes 10 public & private partners



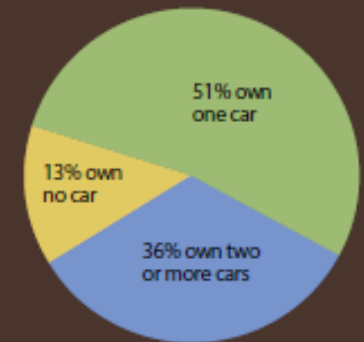
# Transportation

- “Oberlin Transportation Profile” developed by Center for Neighborhood Technology (CNT)
- New and improved streets incorporate “Complete Streets” features
- Safe Routes to School – pedestrian/bicycle safety improvements pending
- Collaborate w/ county to support transit
- Bike trails/lanes link community
- Challenge: Commuters travel to/from widely dispersed destinations/originations

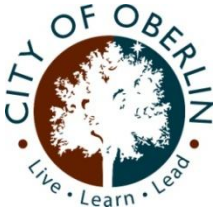
## Transportation Profile of Oberlin

**53%** of commuters  
travel less than  
**ten minutes**

12% commuters  
**CARPOOL**

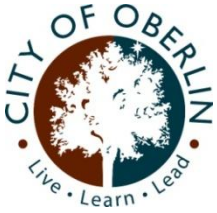


**1.5**  
cars per household  
in the city of Oberlin  
(0.2 less than the national  
average)



# Building and Economic Development

- Downtown businesses aim to meet student and resident shopping needs locally
- Oberlin College food service buys 28% of its food from 23 local farms = nearly \$1.3 million in local spending
- Many Oberlin restaurants buy local fruit, eggs, meat & more
- City of Oberlin and College are committed to LEED Silver or better for new projects and major renovations
- \$15 million East College Street project turned former Brownfield site into LEED-certified (pending) mixed-use development
- Building efficiency disclosures being considered
- City-owned land planned for sustainable, economical residences



# Links

- [www.cityofoberlin.com](http://www.cityofoberlin.com)
  - 2013 Updated Climate Action Plan:  
<http://goo.gl/jT5FPO>
- [www.oberlinproject.org](http://www.oberlinproject.org)
- [www.poweroberlin.org](http://www.poweroberlin.org)
- [www.energysmart.org](http://www.energysmart.org)
- [www.oberlin.edu](http://www.oberlin.edu)

# Questions/Comments?

## Additional Information...

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