



CIRCUIT RIDER PROGRAM

Energy Efficiency in Local Government Operations

Energy Management Best Practices for Municipal Buildings

Liz Compitello, Research Analyst
Office of Energy and Climate Change Initiatives
ecompitello@dvrpc.org
215.238.2897

June 13, 2012
Lower Merion
Township

Reducing Energy Costs in Municipal Operations

Seminar 1 (April 11, 2012): LED Traffic Signal Conversion Program

Seminar 2 (June 13, 2012): Energy Management Best Practices

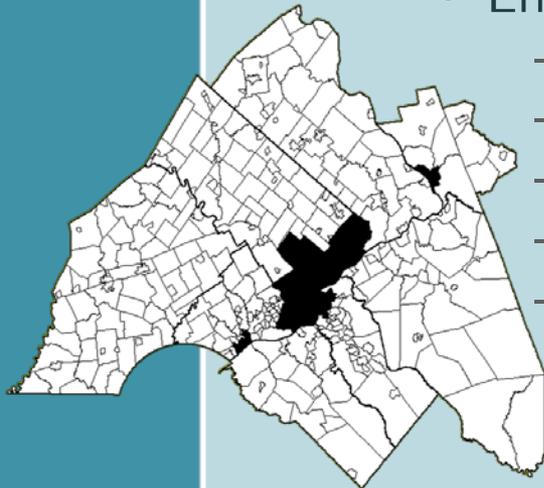
- Introductions
- Liz Compitello, Research Analyst, DVRPC
 - “Introduction to Circuit Rider Program”
- Mike Beck, Assistant Director of Public Works, Lower Merion Township
 - “Energy Management in Lower Merion Township”
- Paul Spiegel, President, Practical Energy Solutions
 - “Energy Management Best Practices in southeastern Pennsylvania”
- Andrew Kreider, Environmental Protection Specialist, US EPA Region III
 - “ENERGY STAR Portfolio Manager”
- Questions and group discussion – 30 min.

Seminar 3 (Sept. 2012): Project Financing and Budgeting

Seminar 4 (Dec. 2012): Outdoor Area Lighting: Streetlights, parking lot lighting, and recreational lighting:

Delaware Valley Regional Planning Commission

- MPO for Greater Philadelphia Region
- Region is bi-state, nine counties surrounding and including Philadelphia
- Planning areas
 - Transportation Planning, Air Quality, Smart Growth Planning, Environmental Planning, Housing and Economic Development, Population and Employment forecasts, Long Range Planning, and...
 - Energy and Climate Change Initiatives:
 - Regional greenhouse gas inventory
 - Sea level rise planning
 - Preparing the region for alternative energy
 - Electric Vehicle Readiness Plan
 - Municipal energy management assistance



Challenge of Municipal Energy Planning

- 228 small and medium sized (<35,000) munis in SEPA
 - median population of 6,275
 - range in population size from 34,522 to 572.2
- Limited staffing capacity to support the type of energy management found in larger municipalities.
- Fiscal constraints.
 - Limited municipal budgets
 - No Systems Benefit Charge
- Inundated by vendors and solicitors selling products and services.
- Unsure where to start with energy management
- Prior to DVRPC Circuit Rider Program, no entity focused intently on these municipal needs is established region wide.

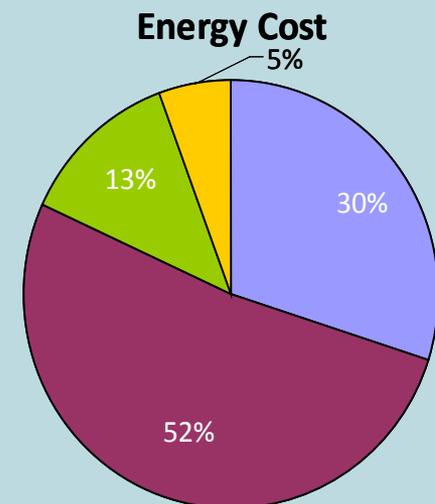
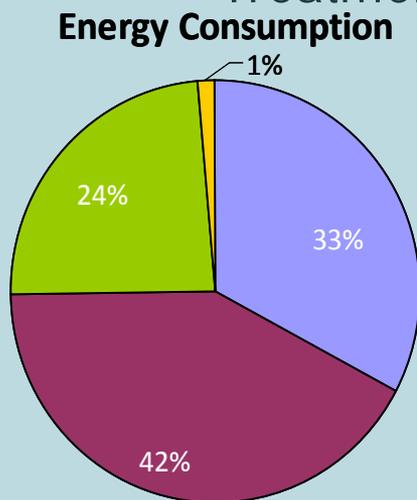
DVRPC Circuit Rider Program

- Focus on energy efficiency in municipal operations
 - Provide smaller municipalities with easy access to the resources and tools they need to prioritize projects for cost-effectively reducing energy costs in their operations.
- Targeting small- and medium-size municipalities in southeastern PA
 - 228 municipalities, median population of 6,275
- Funded by a U.S. EPA Climate Showcase Communities Grant
 - ~\$364K over 3 yrs

Circuit Rider: “any professional who travels a regular circuit of locations to provide services”

DVRPC Circuit Rider Program

1. Reducing Energy Costs in Municipal Operations Seminar Series
2. LED Traffic Signal Conversion Program (or other bulk purchasing)
3. Direct Technical Assistance
4. Workshops and training for Water and Wastewater Treatment Facilities



Direct Technical Assistance

- One-on-one assistance for your staff from DVRPC and a certified energy expert.
 - Evaluate energy use in your municipal operations.
 - Identify and prioritize cost-effective projects to reduce energy costs.
 - Train staff on energy management best practices.
 - Provide assistance with implementing recommended projects, including purchasing and identifying sources of funding.
- Participate in workshops with the other Direct Assistance Communities
- Receive recognition as an energy efficiency leader.

Applications will be distributed soon by e-mail
(sign up sheet will be passed around)



Energy Management Best Practices Survey

- Distributed by mail to all 238 municipalities in SEPA
- Municipal Buildings
 - Number of buildings?
 - Energy cost?
 - Monthly tracking of energy use?
 - Conducted an energy audit?
 - Operational improvements?
 - Planned facility upgrades?

**CIRCUIT RIDER PROGRAM:
ENERGY MANAGEMENT BEST PRACTICES
DVRPC MUNICIPAL ENERGY MANAGEMENT SURVEY**

1. Name of municipality completing the survey. _____

2. Name of person completing survey _____

3. Contact info (Phone/E-mail) _____

4. About how much does your municipality spend on energy costs at your buildings annually? \$ _____

5. How many buildings does your municipality use in its operations? (i.e. all buildings that are owned, leased, or managed by your municipality) _____

6. Does your municipality review its monthly energy bills for fluctuations in energy use or cost?
 Yes No

7. Does your municipality track monthly energy use in a benchmarking tool or spreadsheet (e.g. ENERGY STAR Portfolio Manager)?
 Yes No

8. Does your municipality have a policy for evaluating the energy efficiency of proposed equipment purchases?
 Yes No

9. Does your municipality educate/engage employees on energy conservation practices (e.g. powering down computers at night, turning off lights)?
 Yes No

10. Has your municipality conducted an energy audit for one or more of its facilities?
 Yes, in the last year.
 Yes, in the last 5 years.
 We plan to conduct one in the next two years.
 We have not conducted an energy audit, nor do we plan to.

11. If your municipality has conducted an energy audit, how was this funded?
 Internal funds
 Through federal, state- or county-funded program

12. Has your municipality implemented any of the following operational improvements to your facilities?
Plug load management (powering down equipment, enabling sleep modes, or any other action that reduces "plugged in" energy consumption):
 Yes No Don't know

Dimming (reducing the quantity of lighting fixtures installed in your facilities):
 Yes No Don't know

Adjustment or re-programming of thermostats (e.g. adjusting thermostat set points, installing programmable thermostats):
 Yes No Don't know

HVAC maintenance:
 Yes No Don't know

13. Is your municipality planning to upgrade any of the following equipment over the next 1-5 years?
 Streetlights (please specify technology type, e.g. Metal Halide, LED, HPS, Induction)

 Traffic Signals (please specify technology type, e.g. LED)

 Outdoor Area Lighting (please specify technology type, e.g. lighting for parking lots, parking garages, and recreational fields, lighting controls)

 Indoor Lighting (please specify, e.g. T8s, LED Interior, CFLs, occupancy sensors)

 HVAC (please specify, e.g. premium efficiency motors, VSDs, hot water heaters, HVAC controls)

 Building Envelope/Insulation

TYPICAL ELECTRIC ENERGY END USE FOR MUNICIPAL BUILDINGS IN SOUTHEASTERN PA

Category	Percentage
HVAC	47%
Lighting	18%
Plug Load	14%
Other	10%
SHW	9%

THANK YOU!

Energy Management Best Practices

Operational improvements that can be completed with in-house labor, at no or low cost

(<1 yr payback): 

- plug load management
- reprogramming thermostats
- lighting sensors/timers
- HVAC maintenance
- delamping

Administration Building	Total Savings	% Savings
East Whiteland Township	\$5,184	19%
Malvern Borough	\$6,020	13%
Pennsbury Township	\$723	7%
Thornbury Township	\$1,433	16%
West Chester Borough	\$328	1%
Westtown Township	\$2,040	15%
West Goshen Township	\$11,453	8%

Source: Practical Energy Solutions, 2011

Upcoming Circuit Rider Events!

- Seminar 3: (Sept. 2012) Project Financing and Budgeting
- Seminar 4 (Dec. 2012) Outdoor Area Lighting: Streetlights, parking lot lighting, and recreational lighting

Thank you!

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