

Portage County Energy Report 2013

Presented to the Portage County Board of Supervisors
April 22nd, 2014

Overview and some key points

Snapshot of Energy Use in 2013

- In 2013, Portage County spent \$1,785,638 on energy resources
 - \$640,047 on utilities
 - 5,510,282 kilowatt-hours (kWh) of electricity
 - 262,433 therms of natural gas
 - \$1,145,591 on fuels
 - 325,402 gallons of transportation fuels for county-owned vehicles and equipment
 - This is part of the County's operating budget
- Reduction in utility use and costs over the past five years
 - improved heating performance of buildings due to energy efficiency projects
- Annual average price paid for electricity (per kilowatt-hour) has increased every year but one since 2008

Utility Accounts Covered in the 2013 Energy Report

- 51 utility accounts
 - 48 electric meters
 - 15 natural gas meters
- 14 Buildings
- Pumps, Fountains and Irrigation
- County Parks

Facilities Owned and Operated

BUILDINGS	OWNER	OPERATOR
Annex	Portage County	Shared: mainly Portage County
Law Enforcement Center	Portage County	Portage County
City/County Courthouse (1/2)	Portage County	Shared w/ C. Stevens Point
Ruth Gilfry Building	Portage County	Portage County
Health Care Center	Portage County	Portage County
Lincoln Center	City of Stevens Point	Portage County
Jefferson House	Portage County	Midstate Independent Living Consultants
Portage House	Portage County	Portage County
Recycling Center (Materials Recovery Facility)	Portage County	Contracted service provider
Transfer Center	Portage County	Shared w/ contractors, public
Public Library in Stevens Point	City of Stevens Point	Portage County
Plover Branch Library	Village of Plover	Portage County
Hwy Garage	Portage County	Portage County
County Rd Y Shop Prk Dept.	Portage County	Portage County
825 Whiting Ave Shop	Portage County	Portage County
OTHER FACILITIES		
Parks (most typical accounts)...	Portage County	Shared w/ RVs, park visitors
Landfill	Portage County	Portage County; escrow
Business Park Common Grounds...	Portage County	Portage County; cost-share

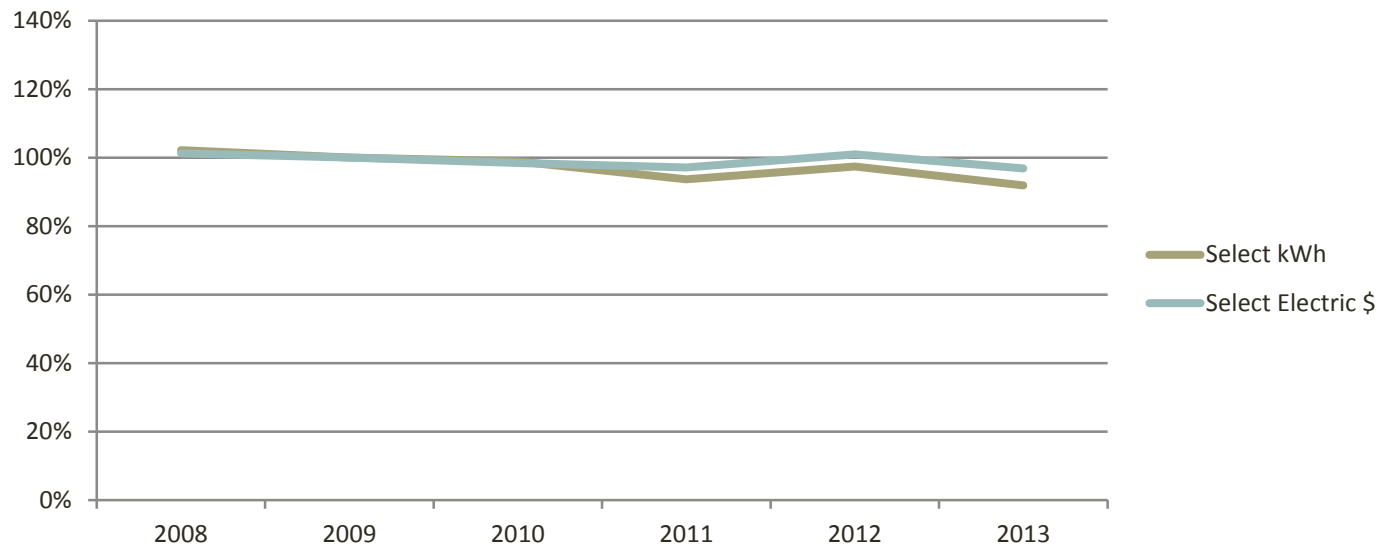
Snapshots for Comparison: Facilities Operated by the County

	2009	2012	2013	'13 as % of '09
Number of Portage County-controlled buildings:	12	12	12	-
County electricity and natural gas use (MMBtu):	42,140	36,188	39,058	93%
Electricity (kWh)	5,117,203	4,983,810	4,702,397	92%
Natural Gas (therms)	246,805	191,837	230,135	93%
Cost of County energy (kWh & therms) use:	\$606,683	\$534,175	\$537,850	89%
Electricity (\$)	\$408,563	\$412,449	\$395,543	97%
Natural Gas (\$)	\$198,120	\$121,726	\$142,307	72%

Notes:

- Snapshots here include only the buildings and facilities occupied and predominantly operated by Portage County Government from 2009 through 2013.
- Comparing 2013 to 2009, a reduction in electricity use among these facilities more-than-offset an increase in the average price paid per kilowatt-hour for a modest net savings of about \$13,000 in 2013. If electricity prices had not risen over this period, total electricity costs in 2013 would have been as low as about \$375,000, which is about \$33,000 less than costs paid in 2009.

Electricity Use and Cost: Facilities Operated by the County



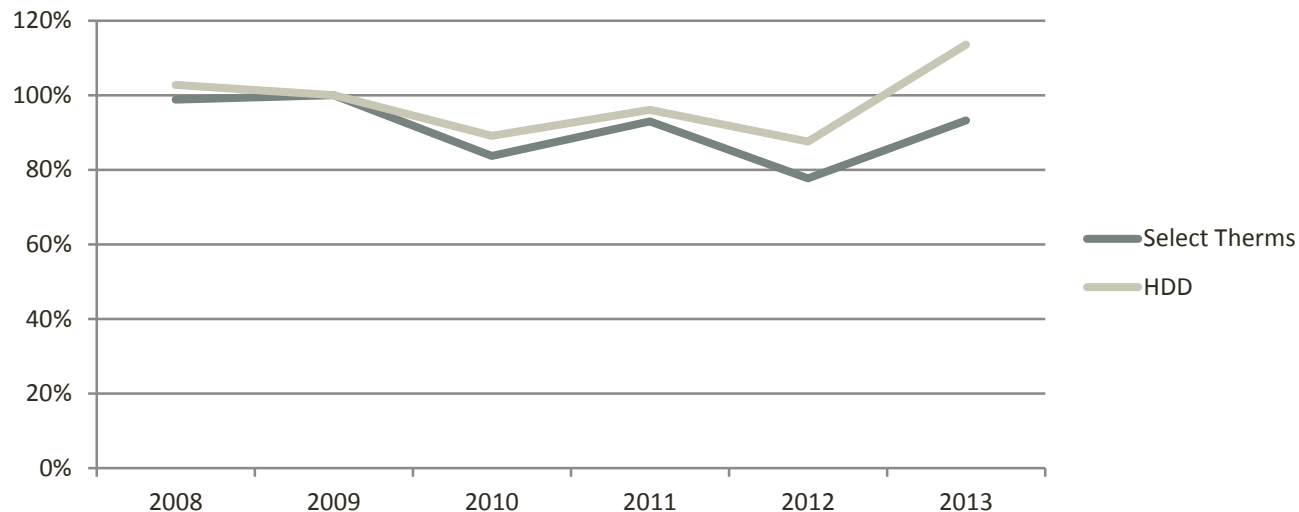
Comparative Values, 2009 = 100%

Gas Use and Cost: Facilities Operated by the County



Comparative Values, 2009 = 100%

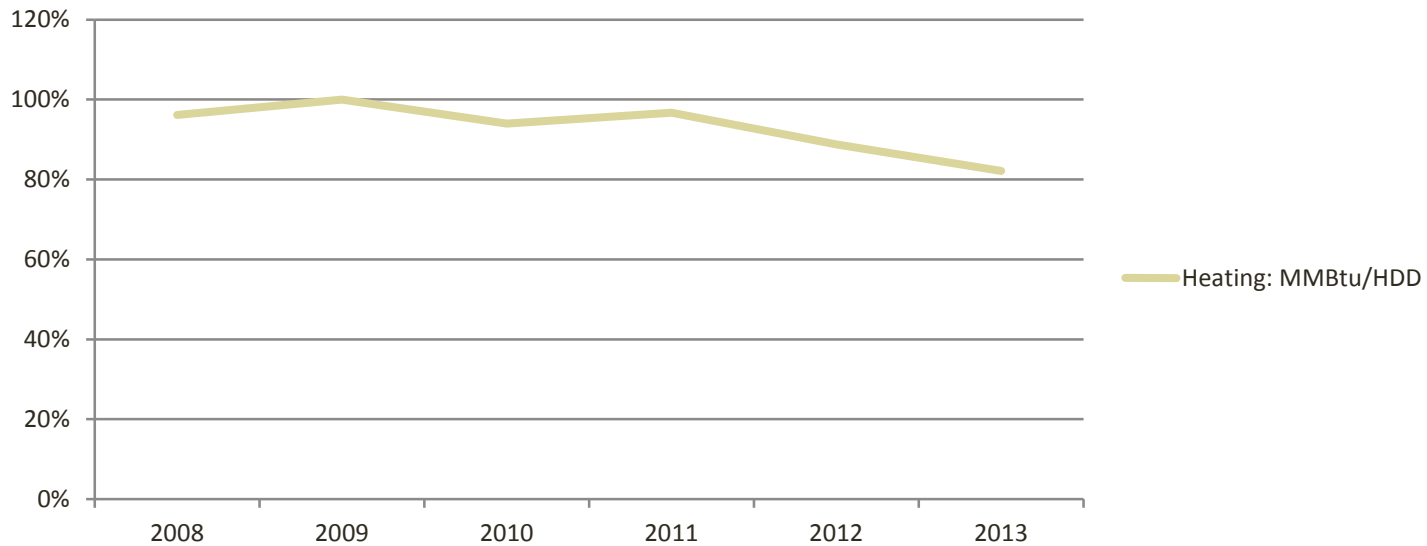
Heating Load and Natural Gas Use: Facilities Operated by the County



Comparative values, 2009 = 100%

Heating Degree Days (“HDDs”) are commonly used as a measure of coldness over a specified time period. HDDs are calculated according to daily temperatures relative to a specified base temperature of practical interest, such as a target indoor air temperature. So HDDs are roughly proportional to furnace loads, and relate to natural gas consumption. Variation in heating load (cold winters, measured in HDDs) from year to year corresponds to natural gas use.

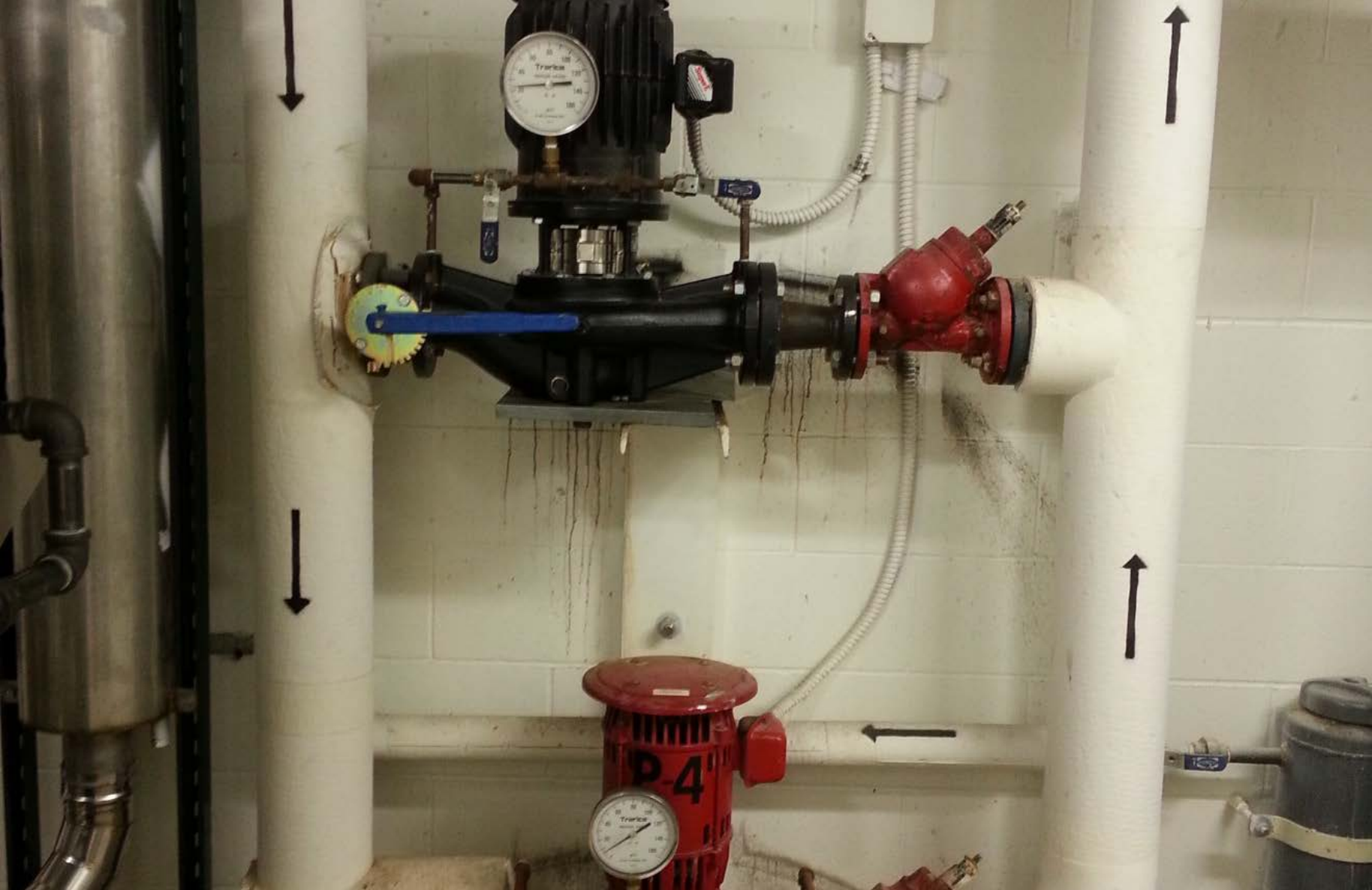
Natural Gas Use per HDD: Facilities Operated by the County



Comparative Values, 2009 = 100%

Some Notable Energy-Saving Projects

- improving HVAC and hot water controls
- reducing air infiltration on doors
- insulating AC lines
- installing variable frequency drivers for water pumps
- replacing lights with LEDs and custom fluorescents
- replacing boilers with high performance boilers
- replacing electric humidifiers with natural gas
- favoring efficient appliances where appropriate



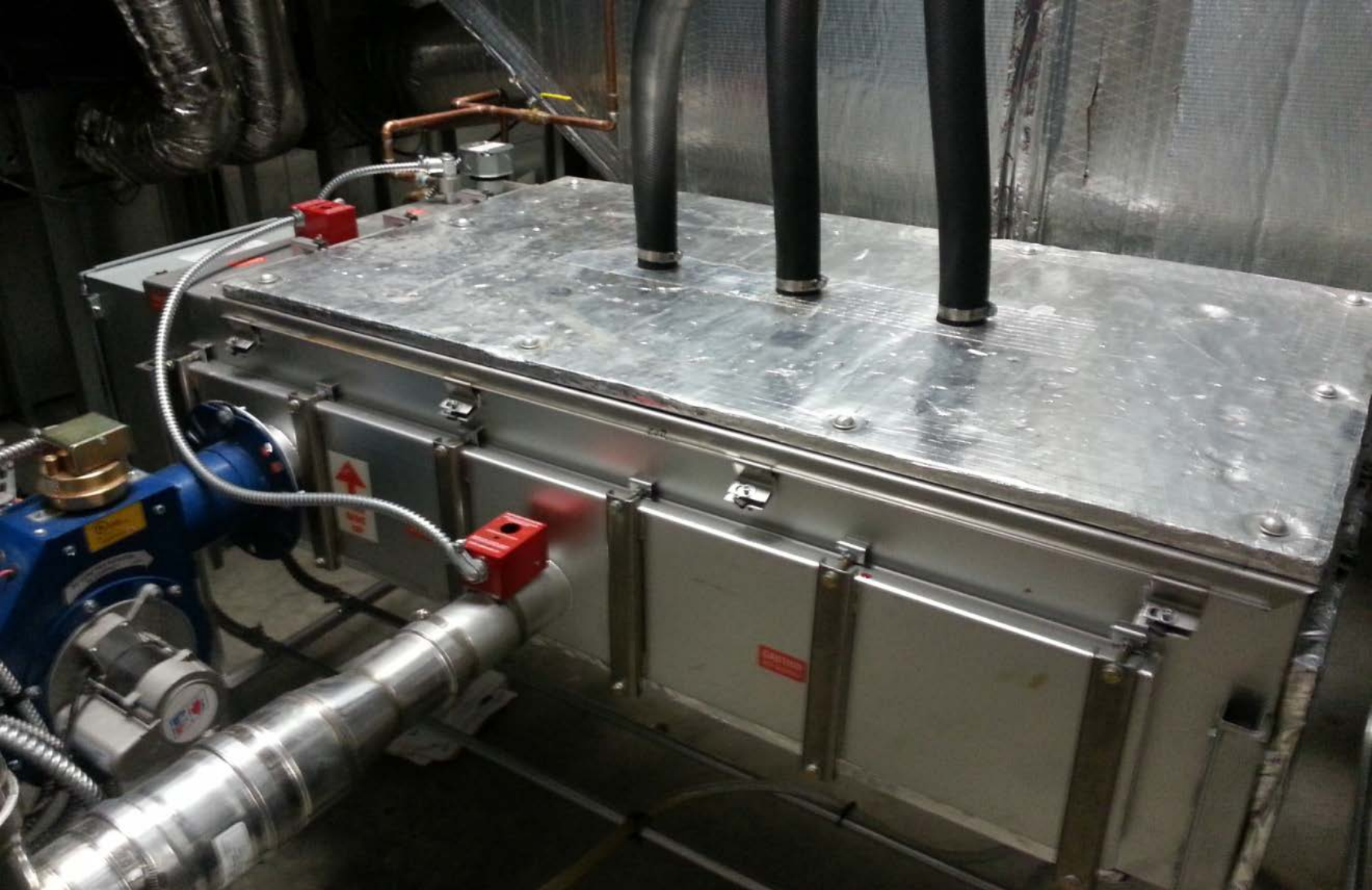
Efficient Variable Speed Pump (Annex)



New Variable Frequency Drives (Annex)



Boilers (Law Enforcement Center)



New Natural Gas Humidifier (Law Enforcement Center)

Some Observations and Key Points

- Many of the energy savings we've realized were made possible by investment in efficiencies
- Buildings that we know will continue to be owned and operated by the county have seen most of that investment, and improvement
- Major capital projects present major opportunities for building efficiency
 - Integrated design, striving for benchmarks
 - Coordinated facilities planning

Moving Forward

- Continue to invest in energy efficiency in existing facilities, as well as in future building projects
- Exploring potential for renewable energy
- Exploring potential opportunities for further assistance
- Assisting county departments with strategic energy management
- Seeking ways of doing work to save time and energy
- Examining energy costs that are part of the products and services purchased
- Energy efficiency in the community and savings for county residents and businesses help to strengthen County government as well

Thank You

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