



# Energy Report

Newsletter for the Central Pennsylvania Chapter of The Association of Energy Engineers

Volume I, Issue II

October 2007

## About the Central PA Chapter:

- Local Chapter meetings held throughout the year (except July & August).
- Monthly meetings generally include a speaker on a "hot" energy topic coupled with a plant tour.
- Network with industry peers.

**We're on the Web!**  
[www.aee-centralpa.org](http://www.aee-centralpa.org)

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## NOVEMBER MEETING NOTICE



### The Central Pennsylvania Chapter of The Association of Energy Engineers

<b>Meeting Topic:</b>	<b>Discussion of EnergyWorks Park City Facility</b> (See Insert for Description)
<b>Speaker:</b>	<b>Representative from EnergyWorks</b>
<b>Lunch Meeting:</b>	Damon's Grill, 680 Park City Center -- Boscov's Wing
<b>Date/Time:</b>	Lunch Meeting begins at 11:45 a.m. Thursday, November 1, 2007
<b>Plant Tour:</b>	EnergyWorks at Park City Mall Lancaster, PA Tour will start around 1 p.m.
<b>Plant Location:</b>	800 Plaza Boulevard Lancaster, PA 17601
<b>Directions to Lunch:</b>	Park City Mall is located off the Harrisburg Pike exit of Route 30 in Lancaster, PA.
<b>Registration:</b>	To register, contact Edward Berger at <a href="mailto:eberger@ugi.com">eberger@ugi.com</a> or (610) 796-3557 by 10/29/07.  Registration is \$25.00 per member or \$30 per non-member  Registration includes a selection from Damon's Lunch Menu.

## Park City Center—November Tour

### Park City Center Energy & Infrastructure Services

Park City Center is a super-regional shopping and commercial complex, located in Lancaster, PA with over 1.4 Million square feet of leasable space, housing over 150 commercial tenants (visit [www.parkcitycenter.com](http://www.parkcitycenter.com)). Under the energy concession agreements, EnergyWorks affiliates own, operate and maintain the energy infrastructure, supplying electricity and space conditioning for common areas and leased spaces through Energy Services Agreements with individual tenants.

The infrastructure includes:

- 69 kV Substation with redundant transformer capacity to supply 7.5 MW of electric power from the grid
- Central Plant -with 1000 HP dual fuel boiler capacity, 3700 Ton chiller capacity and hot/chilled water pumping systems.
- A four-pipe distribution network provides district heating and cooling to over 180 air handling units serving spaces throughout the commercial complex.
- 4160 volt primary distribution to substations for low voltage secondary distribution to over 230 metered service delivery points.

Since acquiring the assets in 2003, EnergyWorks has made extensive investments to reconfigure systems, replace and enhance equipment, install a communications and control infrastructure and implement a scalable, web-based software platform for Dynamic Optimization of service delivery, operations and asset management.

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### Board of Directors

President: Edward Berger, CEM  
UGI Utilities, Inc.  
president@aee-centralpa.org

Secretary: Douglas Aldinger, PE, LEED AP  
Erdman Anthony  
secretary@aee-centralpa.org

Vice President: David Eberly, PE, CEM, CSDP  
Armstrong World Industries, Inc.  
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Website/ Newsletter: Thompson McConnell, CAP, CEM, CSDP, CDSM  
Powerhouse Operations Inc.  
webmaster@aee-centralpa.org

Treasurer: Michael Parker, PE, CEM  
Johnson Controls, Inc.

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### We're on the Web!

The Central Pennsylvania Chapter of the Association of Energy Engineers is on the World Wide Web.

Visit our website at [www.aee-centralpa.org](http://www.aee-centralpa.org) for up-to-date information and news concerning the Central Pennsylvania Chapter. The website will contain information concerning schedule of events, meeting announcements, relevant AEE National News and information, contact information, and copies of the Chapter Newsletter.

## CaseStudy:

### EnergyWorks Lancaster, LLC

Lancaster, Pennsylvania

## Chiller Plant Upgrade Keeps Energy Costs in Line for Shopping Center Tenants

**EnergyWorks provides technical support, project management and business process outsourcing services to developers, lenders, and owner-operators of energy and infrastructure facilities. Rising energy costs, concern for the environment, and increasing market complexity are causing businesses to reconsider their approach to managing their purchase and use of energy. Businesses turn to EnergyWorks for its unique breadth of experience and network of industry experts and service partners.**



EnergyWorks affiliates own and operate the central utility plant and energy distribution infrastructure that serves Park City Center, a super-regional shopping and commercial complex in Lancaster, Pennsylvania. EnergyWorks Lancaster, LLC, teamed with YORK to upgrade and reconfigure its large chiller plant to offset rising electricity costs without compromising comfort to tenants and shoppers at Park City Center.

### Challenges

- Reduce the operating costs of supplying space conditioning services to more than 170 tenants that occupy 1.4 million square feet of retail space.
- Fund the chiller plant upgrade project without tapping into capital reserves.

### EnergyWorks – YORK Solutions

- Reconfigure the chiller plant to optimize series operation of chillers with condenser relief.
- Replace two outdated 650-ton low-pressure chillers with a single 1,100-ton YORK YK centrifugal chiller to provide base load cooling, optimized for off-design operating conditions.
- Incorporate variable speed drive technology, allowing the compressor to slow down when cooler condenser water enters the new base load chiller.
- Structure a leasing agreement with YORK's financing partner so that the new chiller can be funded out of the operating budget.



### Results

- Trimmed chiller plant energy consumption by over 30 percent, minimizing future utility rate increases to shopping center tenants as energy commodity costs continue to escalate.
- Expected reduction of chiller plant maintenance costs because less stress will be placed on the chiller compressors and other moving parts.
- Improved plant reliability and achieved predictable monthly budget expenditures through a leasing arrangement, freeing capital dollars to fund additional projects to improve the efficiency and performance of the Park City Center energy infrastructure.

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### Chapter Schedule of Events (2007-2008)



September 13	Reading, PA	Energy Pricing & Liquid Natural Gas Plant Tour
October	No Meeting	
November 1	Lancaster, PA	EnergyWorks Tour of Park City Center
December 6	TBA	Holiday Social Event
January 10	York, PA	Underfloor Air Distribution System & Control,
February	Harrisburg, PA	DEP Energy topic
March 1	Lancaster, PA	Green Buildings GGGC & Armstrong World Industries Platinum LEED Facility
April	TBA	TBA
May 1	Lancaster, PA	Lancaster EDC Project / Barnstormer's Baseball game, Lancaster
June 5	TBA	Golf Outing

