



# SpotLight on Maintenance

OPFMA Newsletter - Connecting Knowledge with Public Facilities' Needs!  
 Winter 2017

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## Ohio Public Facilities Maintenance Association

OPFMA is a not for profit (501) (c) (3) independent educational trade organization

### OPFMA 2017 Fourth Quarter

By Alexandra Schneider, OPFMA Administrator /CEO



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#### Editor's Note:

Next Edition - **MAR 2018**  
 Publication Terms & Deadline  
 Deadline for Materials Submission  
 to be Published - **MAR 01, 2018**

Greetings and best wishes to all OPFMA members as together we are celebrating closing of yet another year, THANK YOU!

Due to OPFMA membership loyal support & participation in OPFMA events, 2017 has successfully concluded with positive cash flow.

YTD revenue is 6.7% higher than in 2016, and total expenses dropped by 2.5%.

2017 Membership participation grew by 13% comparing with 2016 – a very encouraging sign of support for OPFMA which is celebrating its 30<sup>th</sup> Anniversary!

OPFMA Conference & Trade Show was another success – see table below for Attendees' voice!

Combining "Excellent & Good" overall marks OPFMA Conference got 96% highly satisfied.

OPFMA Board & the Administration is reviewing attendee comments, suggestions – and will do all that's possible to address your concerns with Crowne Plaza hotel.

OPFMA seminars – other educative events organized by OPFMA based on Membership interest and educative needs! We are always looking for new seminars & repeat those as requested by OPFMA membership. Seminar participation grew by almost 65% in 2017 comparing with 2016! Thank you again for supporting OPFMA & for giving us feedback to serve you better!!

*Looking Forward Seeing You All Next Year – We Thank You for Your Support!*

### OPFMA 2018 Conference & Annual Trade Show

**Oct 22<sup>nd</sup> & Oct 23<sup>rd</sup>**

Early Bird Attendee  
 Deadline - JUNE 30<sup>th</sup>



#### 2018 Trade Show Registration

Started at OPFMA 2017 Trade Show

**Nearly 60% of Exhibition Booths are SOLD**

Exhibitors register early for the opportunity of being selected to be a presenter in 2018!

### OPFMA 2017 Conference Evaluated Anonymously by Our Attendees



**Merry Christmas, a Happy New Year & Good Will to ALL!!**

Conference 2017	Excellent	Good	Fair	Poor
Conference Overall	43%	53%	4%	
Workshop Content	34%	54%	12%	
Instructors/ Speakers	39%	56%	5%	
Attendee Folder Content	44%	52%	3%	1%
Trade Show	49%	48%	3%	
Meeting Rooms	23%	50%	27%	
Meal Quality	48%	41%	11%	
Hotel Rooms	39%	55%	6%	

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### OPFMA New Members - Welcome Aboard!

#### Individual Member

**Tim Slone** - Mercy Willard Hospital – Maintenance  
**Ken Moorman** – Versailles Exempted Schools – Facility Director  
**Bill Didier** – Versailles Exempted Schools – Assnt Flty Director  
**Brian Sherer** – O’Neil & Associates, Inc. – Maint Technician  
**Bryan Zimmerman** – Vanguard-Sentinel CTC – Operations

#### Institutional Member

**Delaware Area Career Center** - Jack Higgins, Richard Mason, Nathan Leasure, Josh Greer and Bryan Patrick

### OPFMA Chapters

**New Dayton Chapter** - kick-off meeting on Dec 12<sup>th</sup>, 2017

- Chairman - **Phil Hacker III**
- Secretary - **Belinda Kenley**

<http://www.opfma.org/OPFMA DaytonChapter.php>

#### Southern Ohio Chapter

- Chairman - **Dan Colonel**
- Secretary - **John Beckemeyer**

<http://www.opfma.org/OPFMA SouthernOhioChapter.php>

OPFMA oldest Chapter – next meeting in FEB 2018

## Authority Having Jurisdiction - AHJ Trends 2017

*By Ryan Newman, Siemens Industry*

In speaking with various AHJ’s, I have gathered information on what citations they are most frequently finding during their daily visits.

The top infractions are as follows:

**Frequency windows-** Staying on top of inspection windows. Annual +/- 30 days from previous year’s inspection, Semi-Annual +/- 20 days from previous inspection, Quarterly +/- 10 days from previous inspection. Although these allowances are not in writing per NFPA for non health care facilities we do find them to be accepted.

**Thoroughness of the inspection and detailed documentation** - Typed reports versus hand written leaves less interpretation for errors. Be sure the inspection technician is referencing specific code infractions in the report with a detailed explanation. Seconds that count in saving lives.

**Fire dampers-** The inspection of fire dampers, smoke dampers and combination fire/smoke dampers are 1 year after installation for all facilities, every 4 years thereafter in non-healthcare facilities, and every 6 years in hospitals.

An inspection will consist of the following:

- Locate and operate (i.e. actuate) all fire dampers and smoke dampers in your facility, removing and resetting the fusible link to verify the damper fully closes.
- Mark the location of the dampers on drawings.
- Manually activate electric smoke dampers and pneumatic smoke dampers to ensure that the actuator is operable and to verify it fully closes.
- Listing all code required information: location of damper, damper number, whether the damper passed or failed, and detailed reason
- “Before” and “After” pictures of every damper are recommended

**Remember the following:**

**“If you can’t cite it, don’t write it.”** If you cannot reference NFPA72 or NFPA25 then it should not be written on an inspection report.

**“If not in writing, it didn’t happen.”** If you don’t have it in writing on an inspection report then it never happened in the AHJ’s eyes.

## Importance of Seamless Flooring in a Commercial Setting

By Jed Bettelon, Superior Hard Surface Solutions

Seamless flooring systems based on epoxy, polyurethane, MMA and/or polyaspartic polyurea are a great choice for commercial and industrial settings. Many different systems provide options for different applications and all provide versatility in color, customization and traction.

Not just any floor will do. Flooring that is common in residences or small office buildings simply doesn't work in the environment of a restaurant, medical office or warehouse. Vinyl flooring in the form of tiles and even large sheets has seams that are difficult to clean. That's where the flooring comes apart and can be a tripping hazard. Plus, heavy equipment must be rolled over the seams and this makes the seams more likely to come apart, even if they are sealed.

Hospitals have unique needs. They have on the one hand large public areas that are waiting rooms that must be comfortable as well as high performing, because they see so much use. On the other hand, is the large patient area where the floor must be sterile, easy to clean, stain resistant and resistant to contamination by pathogens or bacteria.

Seamless floor coatings provide superior resistance to chemicals, impact and abrasion PERFECT for high traffic commercial floor areas. They also provide excellent clean ability, especially in bathrooms & break rooms by utilizing cove base. Slip resistant options and safety striping to mark walkways and hazard areas provide increased safety for employees.

What is the real lifetime cost of your floor? Seamless floors may be more expensive up front but save on labor of cleaning, less maintenance (no buffing or waxing) and last longer if maintained. It's affordable, especially when you consider the reduced need for maintenance. Cracks, chips, dents are practically non-existent. No matter how big your floor is, it can all be poured in one single step, so no seams to harbor bacteria or start to come apart. And epoxy, MMA or polyurethane resins can be "softened" with any color, pattern or design that you can imagine. From vibrant gem tones to soothing pastels and pearlescent colors, your seamless resin floor can be any color throughout your floor, even in different areas.

### Editor's note:

For more info, contact Jed Bettelon @ (937) 479-1535, or email to [jed@superiorhss.com](mailto:jed@superiorhss.com)

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## Energy Benchmarking Boom

By Richard G. Lubinski – President, Think Energy Management LLC

While energy benchmarking is not a new practice, it is becoming more mainstream as states and cities are starting to mandate annual energy reporting. State and local governments are now leveraging the power of the Energy Star Portfolio Manager database. The Energy Star database enables building owners to see how their annual energy use intensity (EUI) stacks up against comparable buildings in the same climatic regions.

Portfolio Manager has become the de facto standard for benchmarking energy use for owners interested in LEED: Building Operations + Maintenance certification, and it is now the standard for government mandated energy benchmarking and disclosure laws. While still in its infancy, government required energy use disclosure is becoming more common.

Despite the obvious usefulness of energy benchmarking, there were challenges before Energy Star. For example, it might seem obvious to compare energy costs as a way of benchmarking. The problem is that energy rates vary widely across the country and even within local geographic areas based on a variety of factors.

Therefore comparing energy costs alone for various buildings is problematic.

Two identical facilities with different utility rates and located in different climate regions might have their energy cost vary by 100 percent.

What makes utility bill data management even more challenging is the fact that electric and natural gas charges are billed in different energy units depending on the utility company and individual utility rates. While kWh is the common metering and billing unit for electric bills, many rates include charges for electrical peak demand (kW), power factor (kVA), and other factors.

The electric bills became much more complicated because of electricity deregulation, which separated electric distribution from the electric commodity.

The same is true for natural gas bills, but the billing process is less complicated.

**Energy Star: apples to apples**

With most energy benchmarking metrics, FMs may not get accurate building-to-building comparisons.

**ENERGY STAR**  
Shows energy performance relative to comparable buildings (e.g., same type, climate) on an intuitive, 1 – 100 scale. Widely used and recognized.

**EUI**  
Simpler than kWh/sf, but subject to same limitations.

**KWH/SF**  
Energy consumption measures are not affected by variations in utility rates and charges, but are distorted by factors like building type and climate.

Energy costs are of high interest, but of limited value for comparing different buildings.

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Natural gas is billed based on volume (hundreds of cubic feet or CCF, or thousands of cubic feet or MCF) or volume with heat content adjustment (therms or decatherms). Third-party utility databases are normally converted to one measurement (such as kWh and therms) for reporting. Today many companies serious about their utility cost control also track energy consumption in addition to energy cost.

This approach tracks electrical and natural gas consumption based on square footage ignoring the cost factor.

One way to do that is to track energy consumption in kWh for electricity and therms for natural gas, with both based on square feet. That way, facility managers can compare buildings by kWh/sf. Another benchmarking option is energy consumption in British Thermal Units (BTU) per square foot. To make the data easier to read, this can be turned into EUI, measured in thousands of BTUs per square foot (kBtu/sf). This EUI measurement tool ignores the cost of energy and the relative cost of electricity compared to natural gas.

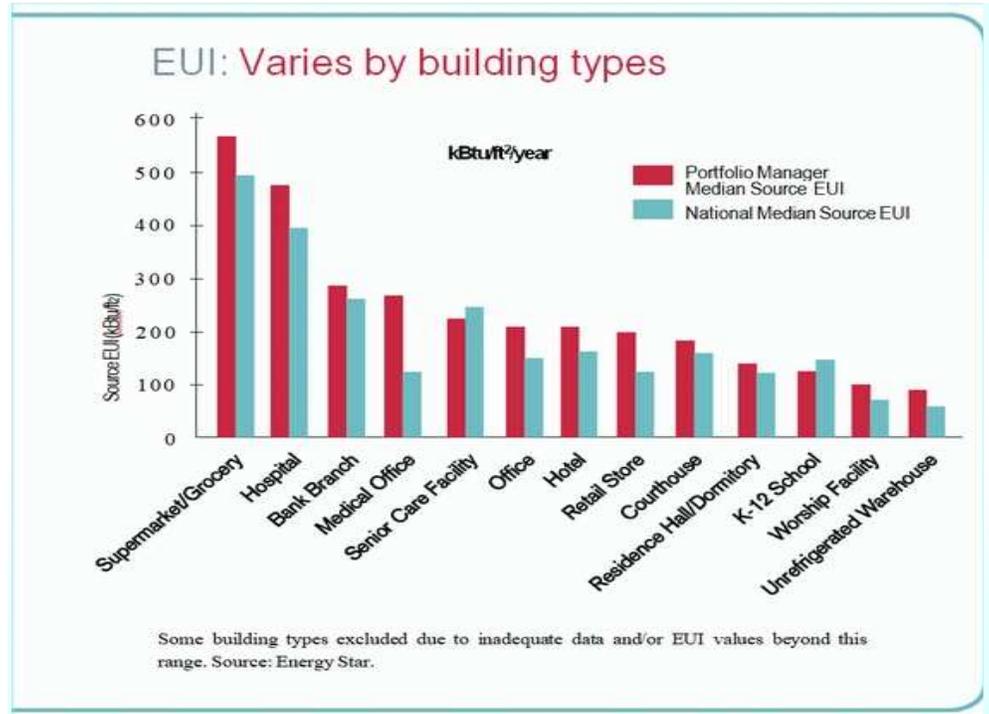
Comparing EUI can lead to some surprising results. Many older buildings are more efficient than newer buildings. Some buildings that are not LEED certified are more energy efficient than LEED certified buildings. But EUI is not the whole story.

**Limitations of EUI**

EUI varies by building types. For example, a grocery store has a much higher EUI than a distribution ware-house. The type of energy-using equipment in certain buildings varies widely. Some buildings have full HVAC for tenant comfort (office buildings, for example), and others (like most warehouses) only have heating. In some buildings, electricity or natural gas is used for production (for instance, restaurants, full-service hotels, and manufacturing plants).

What’s more, regional climate also has an impact on energy consumption. An office building in Florida might use a chiller for its air conditioning needs 11 months per year, and another office building in Minnesota might only need to run a chiller a few months a year in the shorter summer season. Water-side and air-side economizers also provide “free cooling” during some winter months so the chiller can be turned off. Two buildings may have comparable kWh consumption but one may have lower cost due to thermal energy storage (where ice or chilled water is made during off-peak times with lower cost electricity and used to cool the building during the day, when rates are higher).

Portfolio Manager solves both of the problems related to EUI. The Energy Star score is based on a building’s energy consumption compared to similar buildings. It tracks electrical consumption and natural gas consumption based on square footage ignoring the cost factor.



Portfolio Manager adjusts for such factors as building type and regional climate. The result is a true apples-to-apples comparison that can be used to guide plans for improving energy efficiency.

If energy benchmarking is done correctly and is followed up with action, a facility ends up with lower energy costs, lower maintenance costs, and better lighting or better comfort or both, and in the process improves the value of the building.

Portfolio Manager can also be used to track water consumption and waste, the latter a recent upgrade.

**It’s the law**

Today, energy benchmarking may bring another benefit: The property can avoid fines for failing to follow requirements for energy benchmarking reporting. State and local governments across the nation have enacted laws to require energy benchmarking, so the facilities affected need to set up the process of annual reporting or they may face a fine. In general, the states and cities that have passed energy benchmarking laws do not have mechanisms for avoiding the stated fines.

To avoid paying fines, the energy-use data must be collected and uploaded into the Energy Star Portfolio Manager database before the specified deadlines. Smart companies will also use this data to better manage their facilities and to guide them towards cost-effective energy efficiency projects.

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Paying the energy benchmarking fine is wasting money better spent on energy efficiency improvements for buildings.

Many cities only report macro data on how buildings in their area are doing with EUI and their average Energy Star scores. Some cities are tracking EUI over time to determine if their energy benchmarking requirements are motivating building owners to take action to reduce their energy use. A few cities are planning to publish the EUI of each building so the public can see the relative energy efficiency of different buildings, including buildings competing for tenants.

In the future, a customer might decide to rent office space in building A or building B based on their combined EUI and rental cost per square foot — in other words, the total cost of occupancy.

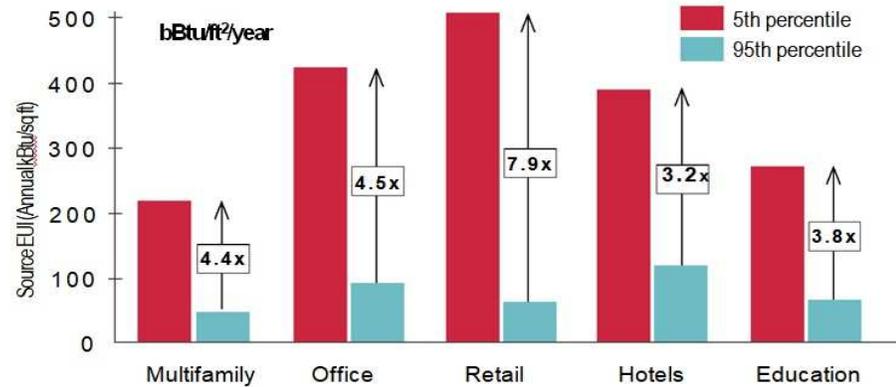
Theoretically someone visiting a town would have the option to go to a government website to determine which hotel they will stay at based on EUI or Energy Star score.

Once companies or government agencies start to look at the EUI data, some buildings stand out as being energy efficient and while others are shown to be energy hogs. The EUI measurement tool clearly identifies which buildings need energy management audits and investments and which buildings do not. The old management theory that you can't control what you don't measure rings particularly true when looking at the EUI of various properties. Government-mandated energy reporting and Energy Star building scores reveal problem buildings that are also opportunities for great return on investment (ROI). An Energy Star study of 35,000 buildings showed that buildings that benchmarked using Portfolio Manager for three consecutive years achieved annual energy savings of 2.4 percent, with a total savings of 7 percent over three years. The buildings' Energy Star scores increased over that time by an average of 6 points. The more that benchmarking motivates facility managers to perform energy audits and implement energy conservation measures, the greater the reduction will be in energy use.

The energy engineering that follows this preliminary data reporting can be complicated. An independent certified energy manager (CEM) can guide facility managers to a more comprehensive understanding of the causes of high EUI in relation to each building's design, mechanical/electrical/plumbing (MEP) systems, operating requirements, and local utility consumption and cost history. The goal is to identify realistic energy-related improvements using conservative assumptions to generate realistic financial projections of simple payback, return on investment (ROI), net

## NYC: EUI comparisons show wide swings

Variation in source energy use intensity (EUI) within five sectors.



Source: NYC Mayor's Office

present value (NPV), internal rate of return (IRR), plus the eventual impact on net operating income (NOI) and asset appreciation.

Like most things in business, there will be competition for investment dollars between energy conservation measures and other business interests. In recent years there are also other considerations impacting ROI such as demand-side management rebates, alternative funding options including government-based public financing, on utility bill financing, and energy saving performance contracting in some cases.

### Business necessity

Benchmarking energy consumption and cost is no longer a nice thing to do but a business necessity for financial, governmental, and environmental reasons. Even some utility companies are motivated to care about facilities' EUI, with government-mandated demand-side management programs intended to encourage energy conservation and thereby reduce the utility company's capital investments (and eventually to save the facility money with lower utility rates). Intelligent energy efficiency investments meet a definition of a win-win for all involved. Intelligent energy management and energy management investments help ensure a company's long-term profitability, provide owners and investors with predictable long-term returns, and positively impact the organization's image with tenants, investors, and the public at large. As the expression goes, "failure is not an option."

Serious business owners also plan for the measurement and verification of the actual energy savings generated by energy efficiency investments. Energy benchmarking tools combined with a certified energy manager to support energy efficiency efforts will provide senior management with the needed reporting on the real world results of energy efficiency projects.

**Editor's Note:** Richard G. Lubinski, CEM, CEA, AEE Fellow, is president of Think En-ergy Management LLC, an energy consulting firm with 35 years energy management experience. He can be reached at [rick@think-energy.net](mailto:rick@think-energy.net). Email comments and questions to [edward.sullivan@tradedress.com](mailto:edward.sullivan@tradedress.com).



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**2018 Board Meetings****Schedule:**FEB 15<sup>th</sup>APR 12<sup>th</sup>JUN 21<sup>st</sup>SEP 13<sup>th</sup>DEC 6<sup>th</sup>

Board Meetings  
are held  
in Columbus, Ohio

**2018 Conference & Trade Show****Oct 21<sup>st</sup> 5:00 pm**

Conf. Committee Meeting

**Oct 22<sup>nd</sup> & Oct 23<sup>rd</sup>  
Conference  
&  
Trade Show**

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**2018 OPFMA Board of Trustees Contact Information**

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**A Note from the Editor:**

Dear reader, OPFMA publishes the "SpotLight on Maintenance" for your benefit; for serving better your interests - your feedback is of a paramount importance!

**Suggestions – Sharing Experiences – and Constructive Criticism are welcomed** by simply bringing in "SpotLight" topics and ideas of interest to you could be beneficial to many other readers.

**Let Your Voice be Heard** - Just drop a note at: [editor@opfma.org](mailto:editor@opfma.org) or visit [www.opfma.org](http://www.opfma.org) and click on "Contact us" – I would be happy to bring your ideas and comments in The SpotLight!

Thank you,  
Alexandra

**Publication and Submission – Terms & Requirements**

"Spotlight on Maintenance" is the official publication of the **Ohio Public Facilities Maintenance Association**, a 501(c) (3) not for profit organization for educational and professional development of public facilities maintenance employees.

It is published quarterly and distributed in the second half of the month of **March, June, September** and **December**.

A special edition would be added as events dictate.

All materials published are copyrighted. SpotLight on Maintenance Editor/Publisher - Alexandra Schneider.

**Deadline: Articles & Photos Submission is on the 1<sup>st</sup> Day of the Month of Publication.**

All documents must be submitted in **Word format** and sent as an e-mail attachment.

All photos and Ads must be in **JPG format** and sent as an e-mail attachment.

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