


Making School Energy Savings a Reality

Ohio School Boards Association
Capital Conference 2013

11/12/13 9:00 AM

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Energy Optimizers, USA


Greg Smith, President, CEM, LEED AP, BD+C, CLEP, CEA

> **Ohio K-12 School Energy Savings Specialists**


- o We understand school business
- o Over **\$32,000,000** of Successful Energy Savings Projects
- o Vendor-Neutral
- o **Never had a change order**

"The bitterness of poor quality remains long after the sweetness of low price is forgotten."
- Benjamin Franklin






Lighting Optimizers, USA



"I am not very smart, I just know a lot of smart people."

Turn-key Lighting Retrofit Company

- o Typically provides the best payback (2-5 years)
- o Over **\$ 7,400,000** of Successful Lighting Retrofits since 2010
- o Purchase material direct from the manufacturers (Tier 1)
✓ Lithonia, GE, Advance, Lutron, Philips, Etc.
- o **Turn-key "In-house" services**
o **From Engineering to Installation (control the quality)**




"Quality and integrity will never be compromised!"
- Doug Trimbach, Vice President
Lighting Optimizers, USA


Panelist Introductions 

Miamisburg City Schools


- **Scott Gilbert**, Business Manager 
- **Joe Idzakovich** - Board Member

Kettering City Schools


- **Ken Lackey**, Business Manager 
- **George Bayless**, Board Member

What is H.B.264? 

- **Allows Ohio K-12 school districts to borrow the funds necessary to implement energy conservation capital projects and...**
 - Pay for the project with the energy savings
 - 15-year period (including interest)
 - Does NOT count against the district indebtedness




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What is H.B.264? 

CHANGE

- 1) **Energy Savings Must be Guaranteed**
 - ✓ Independent 3rd Party Must Verify & Report Energy Savings
 - ✓ Strict and thorough state review process
 - ✓ Project Cost
 - ✓ Project Savings Calculations
- 2) **Only 5 years of Operations and Maintenance Savings**
- 3) **Project Bonding Recommended, Not Required**

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What is H.B.264?

Other Important Notes

- ❖ **District does not have to pass a new levy**
(NO NEW TAXES)
- ❖ **Project does not have to be competitively bid**
 - ✓ OFCC oversight and review of project costs and savings
- ❖ **Maximum project size is 9/10 of 1% of district valuation**
 - ✓ Maximum un-voted indebtedness
- ❖ **Can be used to fund staff**
 - Full or partial funding of a position dedicated to the project/energy savings initiative

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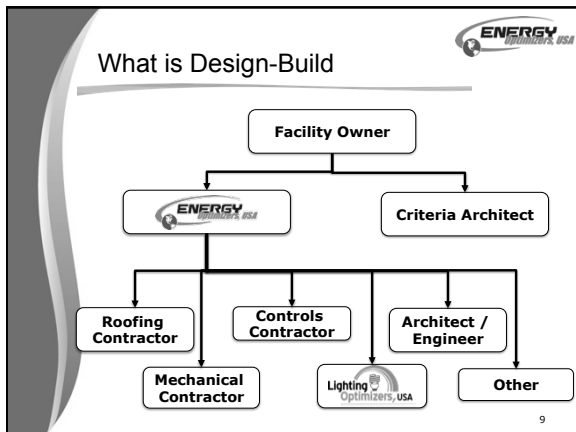



What is Design-Build

Design-Build (HB-153)

- New Construction Reform Law (2012)
- Allows school districts to develop and implement renovation, energy savings or even new construction projects
- Qualification-based selection process
 - You choose who you want to work with
 - Does not have to be "low bid"
- Can Finance for 20-30 Years
 - COPS Financing
 - Use Savings, O&M Savings, PI Funding, Etc.

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Rebate Opportunities

➤ **Many Electricity and Natural Gas Providers Offer Rebates**

- DP&L
- AEP
- Duke
- First Energy
- Columbia
- Vectren
- Some municipalities
 - ✓ AMP/Efficiency Smart



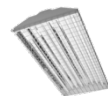

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Rebate Opportunities

➤ **Rebates Include:**

- Lighting
 - ✓ Fluorescent
 - ✓ LED
 - ✓ Sensoring
- Motors and VFDs
- Heat Pumps
- Geothermal Systems
- Audits
- Boiler tune-ups
- Boiler replacements
- Furnace upgrades
- Programmable thermostats

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Miamisburg City Schools

➤ **Scott Gilbert**, Business Manager


➤ **Joe Idzakovich**, Board Member

- 540 E. Park Avenue
Miamisburg, OH 45342
- Phone: (937) 866-3381
- Email: sgilbert@Miamisburg.k12oh.us

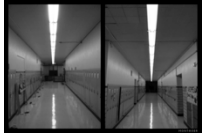





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Miamisburg City Schools 


- > **Overview of Self-funded Projects**
 - o New Construction Projects
 - o Renovation Projects
 - o Energy Savings Projects
- > **Multiple Lighting Retrofit Projects**
 - o Re-lamping and de-lamping of fluorescent fixtures
 - o Occupancy sensors
 - o New Gym Lights
 - o Compact fluorescents
 - o Tennis court lighting
- > **Improved light quality**




Miamisburg City Schools 


- > **Improved learning environment, facilities while reducing our costs**

The district has reduced the overall energy costs by more than 27% (\$224,000 per year) since 2008.



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Miamisburg City Schools 



- > **Questions:**
 - o **You looked at the HB264 but decided not to use it. Why?**
 - o **What has been the reactions from the students and staff in regards to the lighting retrofits?**

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Miamisburg City Schools





Questions:

- **What benefits, other than energy savings, do you feel the district obtained through your projects?**
- **What involvement did your staff have in the projects?**

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Miamisburg City Schools





Questions:

- **As a Board Member, what was your thoughts when energy savings projects were discussed for buildings that were not very old (like Medlarview School)?**
- **How did the district promote the positive impact of these projects to the community?**


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Kettering City Schools




Ken Lackey, Business Manager
George Bayless, Board Member

- 3700 Far Hills Avenue
Kettering, OH 45429
- Phone: (937) 499-1418
- Email: ken.lackey@ketteringschools.org





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Kettering City Schools

- **\$2,414,275 House Bill 264 Project**
- **District-wide Lighting Retrofits**
 - Interior fluorescent: re-lamp and de-lamp
 - Occupancy sensors
 - Exterior LEDs
 - ✓ Parking lot head, wall packs, floods, etc.
- **District-wide Building Automation Enhancements**
 - Commissioning of original system 10 year old system
 - Integration and upgrades of (15) facilities' control systems into one seamless system
 - ✓ Honeywell, Trane, JohnsonMoraine Meadows and Oakview "600 Wing"
 - Advanced energy management programming




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Kettering City Schools

- **Automated Block Heaters for Buses**
 - Based on outside temperature
- **\$79,500 HVAC and Controls "Checkbook Fund"**
 - Will utilize school staff for most repairs
- **Energy Star Certification for Most Buildings**
 - Several buildings are currently EnergyStar rated
- **Building Envelope Enhancements**
 - Vestibule additions


Project Cost: \$ 2,414,275
Annual Savings: \$ 240,832
Simple Payback: 9.71 Years
** \$76,408 in Rebates**



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Kettering City Schools

- **Questions:**
 - **The district is self managing the majority of the project. How are you able to incorporate that into your everyday duties?**
 - ✓ Has this helped/hurt the project in any way thus far?
 - **Prior to developing and approving of your HB264 project, the district implemented many energy savings projects and procedures. Can you explain some of those and the affect (savings) the district realized?**


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Kettering City Schools





Questions:

- Since you are currently implementing your project, how was the process of getting to this point? Was the process difficult?
- What suggestions would you have to fellow school board members on how to address questions from the public on "the school just renovated (or built) our buildings and now you are saying you need to enhance the buildings to save energy"?

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Open Discussion and Panelist Questions



➤ Greg Smith, Energy & Lighting Optimizers, USA
❖ gsmith@energyoptusa.com
❖ 937-620-8753

➤ Scott Gilbert, Miamisburg
➤ Joe Idzakovich, Miamisburg

➤ Ken Lackey, Kettering Schools
➤ George Bayless, Kettering Schools

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Thank You