

Finding the Energy Ghost in the Room

Hidden inefficiencies draining school budgets
March 6th, 2026



Illinois Association of School Business Officials | Friday, March 6, 2026 | Drury Lane Events, Oakbrook Terrace



Introductions

Name: **Andy Bittner, Speaker**

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He is currently leading over \$2.1 billion in sustainable infrastructure projects. Recognized nationally for creating the first Holistic Guaranteed Energy Savings Insurance Policy, he has transformed how communities invest in renewable energy and essential infrastructure, turning energy costs into valuable assets. Changed lighting, HVAC, and done 300+audits.

The **IEC powered by Future Green** is Illinois' largest school energy management group, and provides member districts access to lower cost energy solutions.

As a **not-for-profit** initiative sponsored by Illinois ASBO, IASA and IASB, we actively advocate for school districts helping them unlock cost savings and develop renewable energy assets.



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Finding the Energy Ghost

“You all know your buildings better than anyone else.

And you also know something strange happens when the building is empty at night.”



The Hallway at Night

“You shut everything down for the day...
but the energy meter keeps spinning.”

Why does this happen...

We are going to talk about some
relatable things today, and my goal is
to help eliminate some of your fear.



ENERGY GHOSTBUSTERS



The Energy Ghost

The energy ghost is **waste that hides inside systems** .

Examples...

Lighting

HVAC schedules

Demand spikes

Building Envelope losses



“This isn't about blaming anyone.
These ghosts hide in every building.”

The Facility Manager's Reality



The Facility Manager's Reality

- Aging equipment
- Limited capital budgets
- Constant emergencies
- Trying to keep everyone comfortable

“You are expected to keep everything running perfectly...with tools that are often 20+ years old.”



The Ghosts Facility Managers Deal With Ghost



Demand Charges

“Utilities charge for the highest 15 minutes of demand in the entire month.”

THE \$100,000 GHOST



\$

DEMAND (kW)





**A 15 MINUTE DEMAND SPIKE CAN
COST YOUR SCHOOL DISTRICT**

Electricity Demand Is Different



Water Consumption



How much is used over time



Electricity Demand



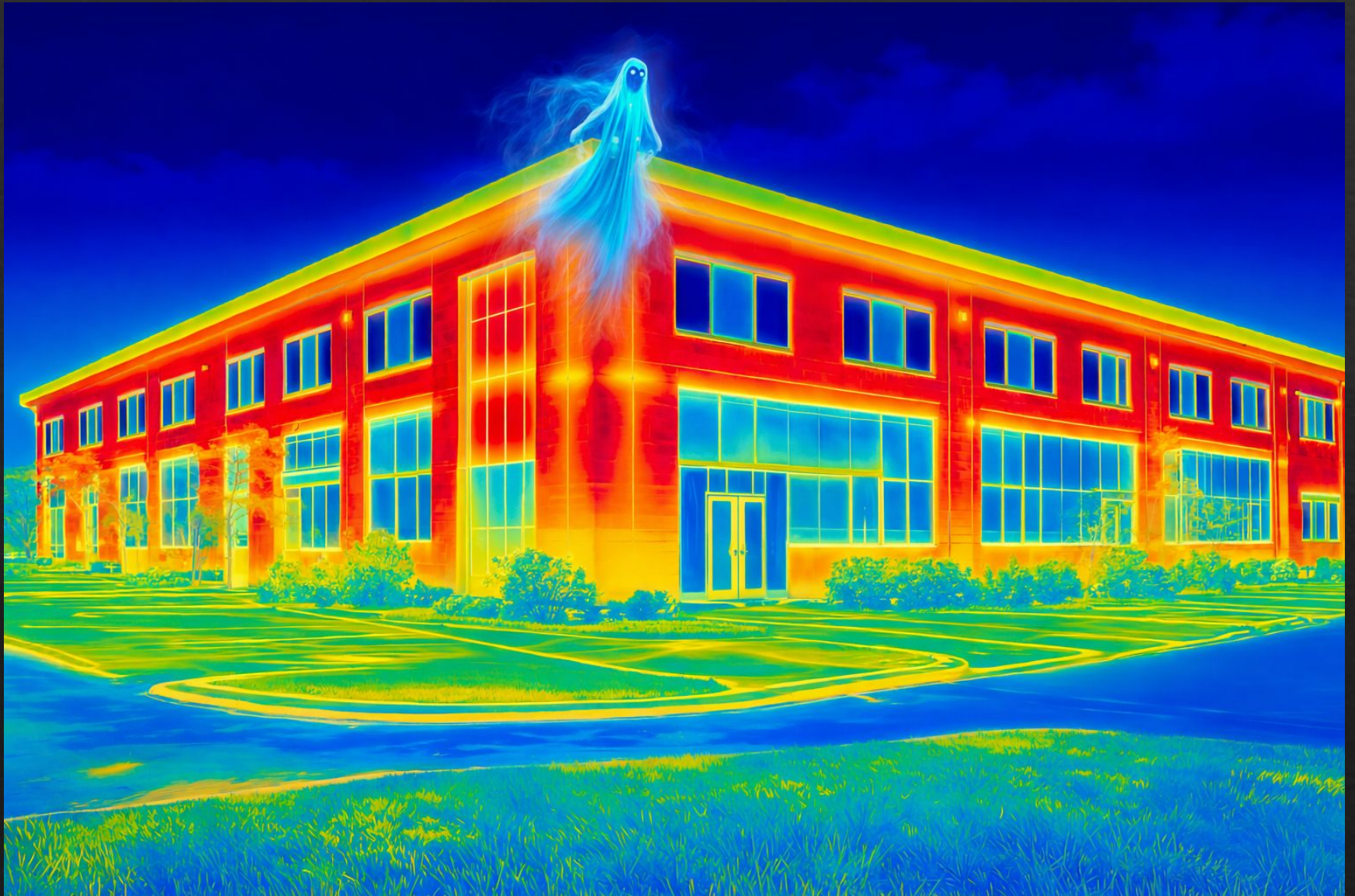
How much is used at one time

Water is about how much you use overall. Demand is about how much you use at **one time**.

Demand Spike Ghost=Money



Building Envelope Ghost



Ghost #2 The Building Envelope

Heat escaping through roofs, windows, and walls

- heat loss
- air infiltration
- insulation issues

“You can have the best HVAC system in the world...but if the building leaks energy, you're fighting a losing battle.”



The scariest thing to me is, this is the fastest ROI, and often best comfort solution.

Ghost

#3

**EQUIPMENT RUNNING
WHEN IT SHOULDN'T**



Is your refrigerator running...

Equipment Running When It Shouldn't

The operational blindspot

- HVAC systems running overnight due to outdated or overridden schedules
- Fans and pumps operating continuously instead of cycling with building demand
- Simultaneous heating and cooling caused by control conflicts
- Equipment left in manual override after maintenance or troubleshooting
- Lighting systems running in unoccupied areas or after hours
- Building automation schedules that no longer match how the building is actually used



“Often times, energy waste isn't caused by bad equipment. It's caused by **good equipment running at the wrong time.**”

Ghost #4 Finance Conversation Ghost



Ghost #4 The Communication Ghost

facility manager + finance
Work vs paperwork

Maintenance teams see problems
but capital funding is hard to
secure.

“You shouldn't have to fight alone
to solve these problems.”

Finance=paperwork=paperwork=paperwork=paperwork=paperwork=pa
perworkpaperwork=paperwork= feasibility study = energy audit =
funding



So How Do We Catch a Ghost?

YOU DO NOT CHASE IT.

YOU ILLUMINATE IT.



How Facility Managers Catch Ghosts

ENERGY AUDIT



Tracking Energy Data

Modern analytics reveal where energy ghosts hide



Energy Data Is Your Flashlight

Interval meter data
Demand monitoring
Benchmarking
Energy Audits



Energy Audits Done Right

A good audit identifies
demand spikes
control issues
envelope losses
Fast ROI paybacks

A bad audit identifies
products first
Ignores demand
A salesperson



Demand Management

- Utilities charge for the highest demand during the billing cycle
- A short spike can determine a large portion of the monthly bill
- Equipment starting at the same time often causes these peaks
- Smart controls can stagger equipment startup
- Monitoring demand helps prevent unexpected spikes
- Reducing peaks lowers cost without reducing comfort

Modern Building Controls

- Modern controls provide real time building performance data
- Facility teams can monitor schedules, temperatures, and equipment run times
- Alerts can identify equipment running outside normal parameters
- Systems can automatically adjust schedules and load conditions
- Data helps identify inefficiencies before they become problems
- Buildings become easier to manage and maintain

ENERGY SAVINGS FUNDING ITSELF



SCHOOL DISTRICT
FACILITIES

MEET FROG

ENERGY
TABBLEF

ENERGY SAVINGS

IMPROVEMENTS PAID
THROUGH SAVINGS

CONTROLS
ENERGY MONITORING
1. SAVING
2. SAVING
2. SAVING

Energy Can Fund Itself

- Capital funding is often the biggest barrier to energy improvements
- Illinois State funding allows upgrades without large upfront costs
- Projects are often funded through the savings they create
- Lighting, HVAC, controls, and envelope improvements can be included
- Risk and performance guarantees can be built into projects
- This approach allows districts to act sooner rather than later



What Successful Energy Projects Include

- A coordinated approach that treats the building as a system
- Lighting upgrades with modern controls
- HVAC optimization or equipment replacement
- Building envelope improvements
- Demand management strategies
- Energy monitoring and data tracking

Facility Managers Are the Ghostbusters

**BANISH THE
ENERGY GHOST!**

1. Data
2. Planning
3. Investment
to defeat
the ghost



Facility Managers Are the Ghostbusters

- You know where systems struggle every day
- You understand how buildings actually operate
- You see problems long before they appear in reports
- Your experience is critical to identifying energy waste
- The best projects start with facility team insight
- Eliminating energy ghosts begins with the people who know the building best

Take control of the Energy Audit process



SCHOOL DISTRICT
FACILITIES

COOLD
DOWN \$

ENERGY SANINER
\$

FACILITY
MANAGER

FACILITY
MANAGER

FACILITY
MANAGER

WASTED
ENERGY
DEMAND
SPIKES
HIGH
COST

Technical drawings and blueprints on the ground.



What Happens When Ghosts Are Eliminated

- Maintenance teams face fewer emergency repairs
- Equipment runs more efficiently
- Buildings become more comfortable for occupants
- Energy costs become more predictable
- Systems last longer and operate more reliably
- Facility teams gain better visibility into building performance

FACILITY MANAGERS SAVED THE DAY NOW THEY DESERVE VACAY



Closing Message

- Every building has hidden energy waste
- These issues often hide in plain sight
- Data and modern tools help reveal the problems
- Facility teams already know where many of the issues are
- Once the ghost is identified, it can be eliminated
- Your buildings do not have to be haunted

Energy Feasibility Studies
are your way to save the
day.



ENERGY GHOSTBUSTERS



**WE'RE READY TO BELIEVE
IN ENERGY SAVINGS!**

Contact Info

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