

Strategies for Healthy, Data-driven Buildings



Northern Ohio
Association of Energy
Engineers

April 22,
2021

Presented by  **JadeTrack**



Founded in 2011



More than 2,000
buildings benchmarked



Over 25 industries
served

Background

- + In 2010, JadeTrack's co-founders watched a big company struggle with a challenge faced by every organization: how to track, manage, and act on energy and sustainability data.
- + Now, the original platform has been developed into a robust solution for some of the world's leading companies.
- + To achieve this, JadeTrack provides a suite of software products to visualize and analyze energy and sustainability program performance.



We are one of the most active, fully integrated partners of ENERGY STAR Portfolio Manager, providing automatic, bi-directional syncing with the system.



JadeTrack

+



igsenergy

Go green for good.

Happy
Earth
Day!





NET ZERO CARBON BY 2040

It might sound
ambitious—but
that's the point.

THE Paris...
CLIMATE 10 years
PLEDGE Early

FIG. 1A



Why do healthy buildings matter?

The Environmental Protection Agency estimates we spend more than 90% of our lives indoors.

A modern office interior with cubicles, desks, and office chairs. The scene is dimly lit with a blue tint. The ceiling features a grid of recessed lighting panels and exposed ductwork. The floor is a light-colored tile. In the background, there are glass partitions and a hallway leading to a set of double doors.

~70 Years



“

The true cost of running our buildings should take into account the health and productivity of people in those buildings.

Joseph Allen, PhD, assistant professor of environmental health at Harvard

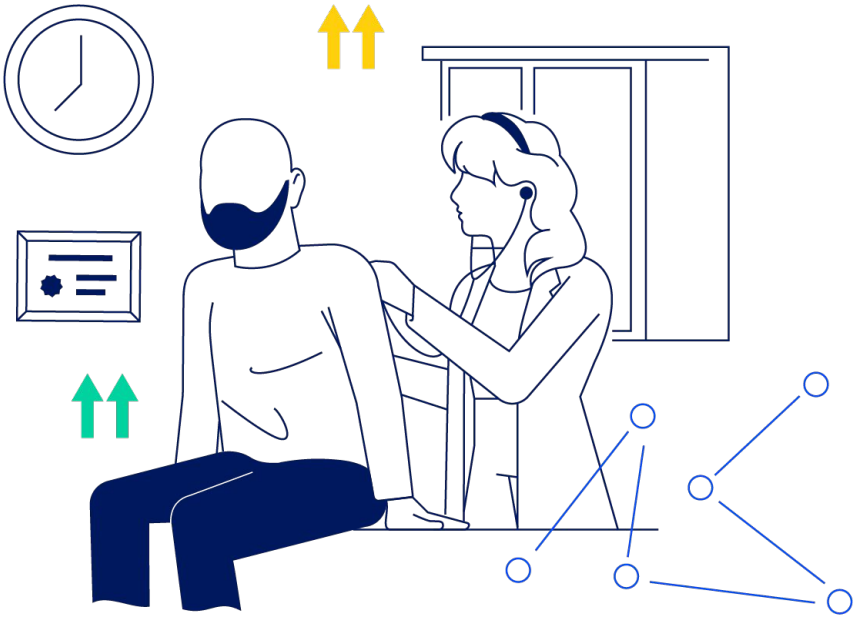


**Poor indoor air quality can result
in a 6-9% productivity loss.**

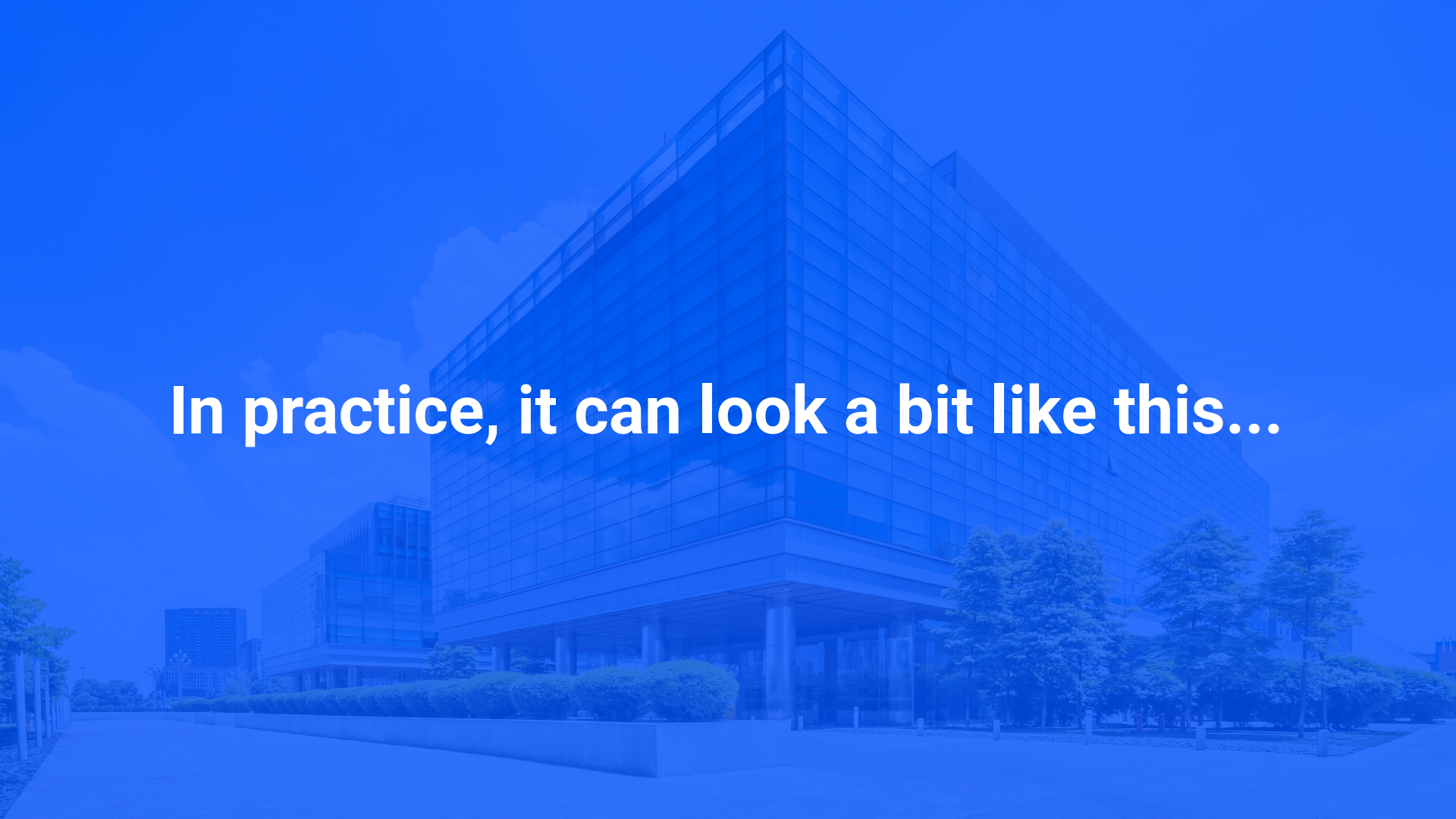


In the U.S. alone, the savings and productivity gains from improved indoor environments are estimated at \$25 to \$150 billion per year.

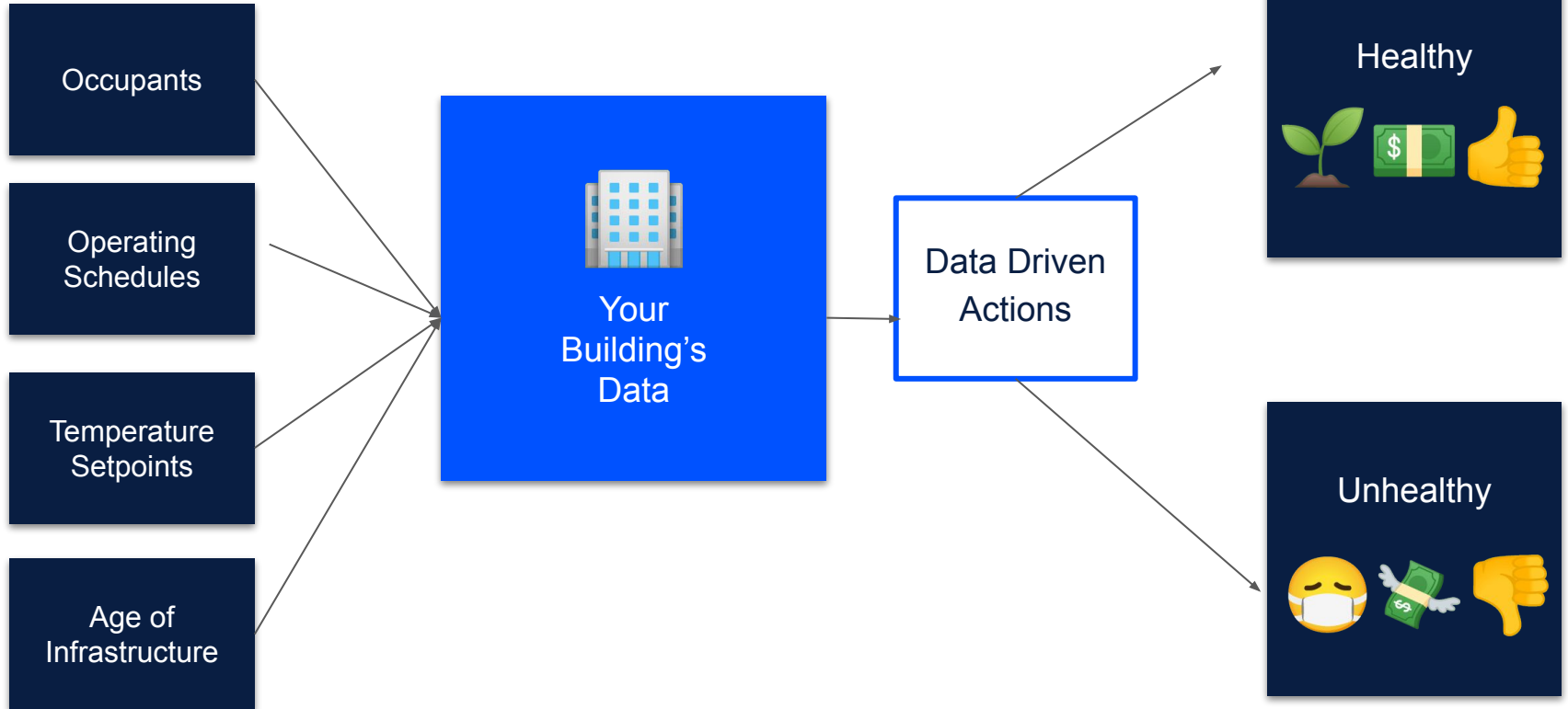
When a patient gets a health check-up, the doctor will diagnose any health concerns and prescribe treatment. And it's the same when it comes to your buildings!



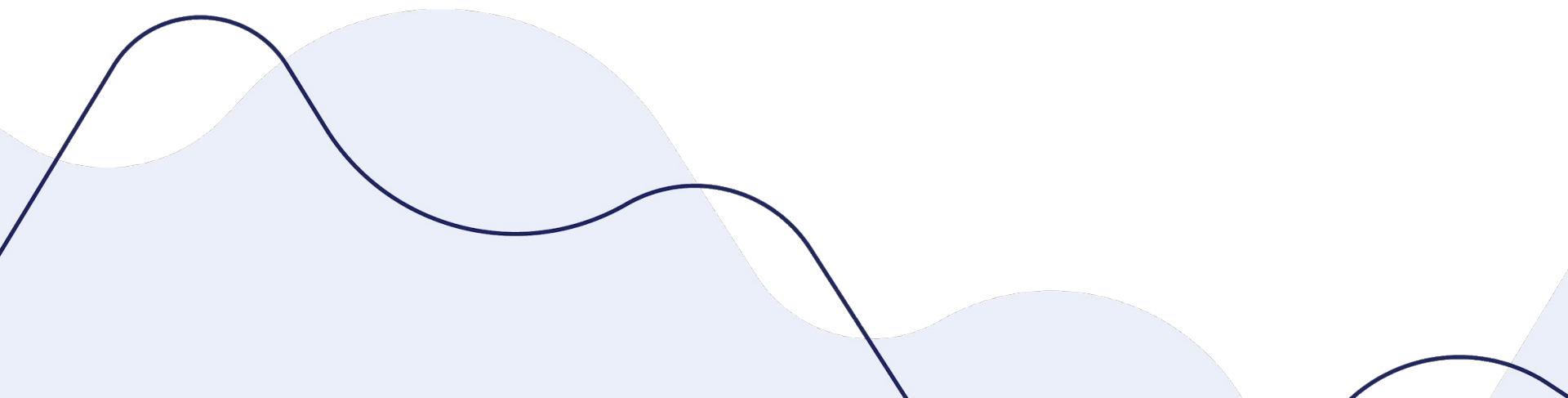
In practice, it can look a bit like this...



Addressing symptoms...



What we'll cover today

- Why do healthy buildings matter?
 - Addressing symptoms
 - Wellness plan
 - Success stories
 - Q&A
- 
- The bottom of the slide features decorative wavy lines. A dark blue line starts on the left, rises to a peak, then falls and rises again before ending on the right. Below this line are several overlapping, light blue wavy shapes that create a layered, organic effect.



Most buildings waste energy needlessly, making energy efficiency in buildings incredibly important to overall building performance.

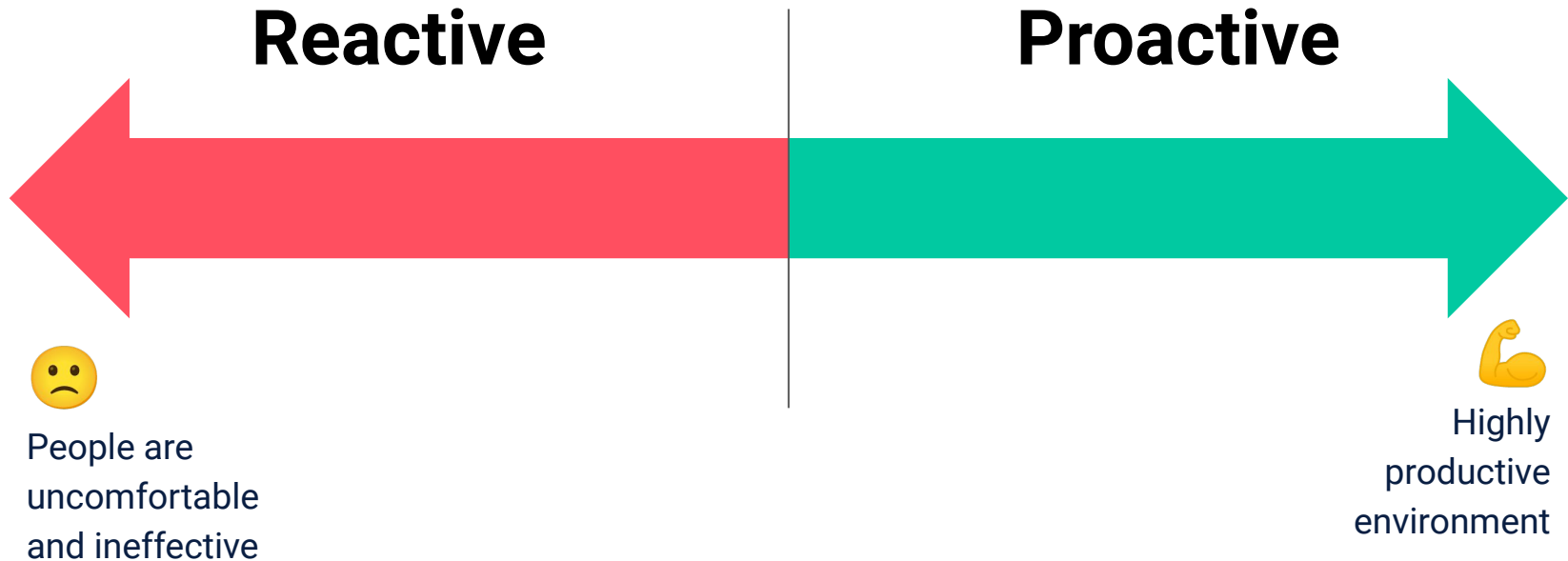


The average commercial and industrial building wastes 30% of the energy it consumes.



40% of Of U.S. carbon dioxide emissions are from commercial buildings and industrial buildings.

How efficient are your buildings?





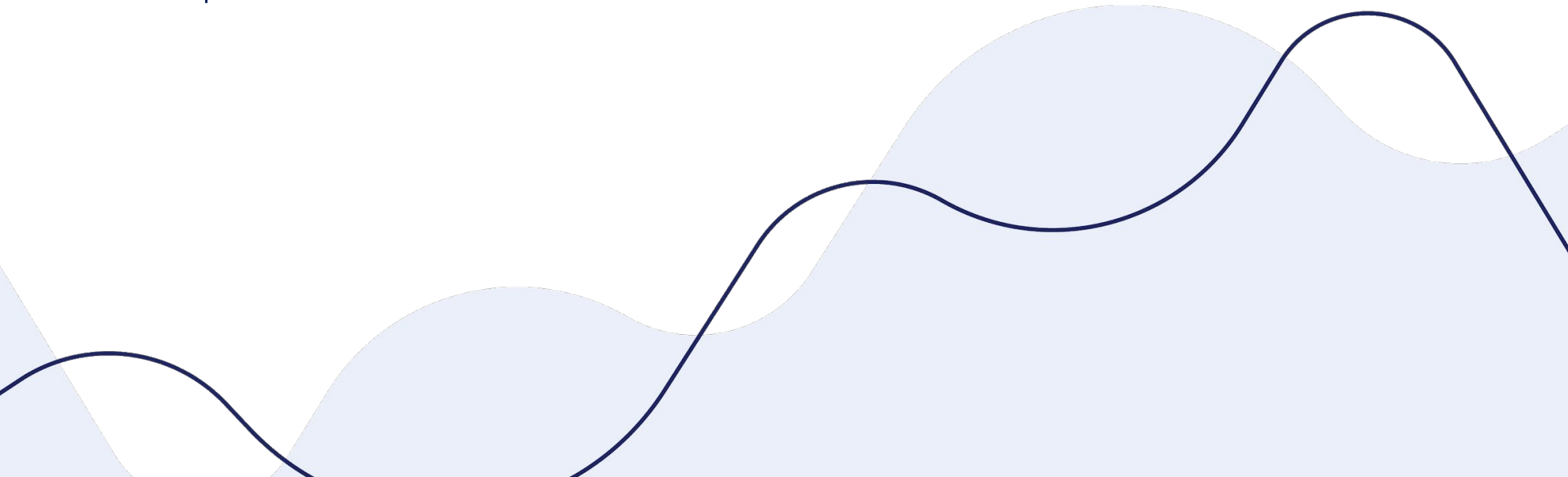
**Ready for healthier, more
efficient buildings?**



Building Wellness Plan

Steps to Building Wellness

1. Check Vital Signs
2. Make a Diagnosis
3. Implement Wellness Plan

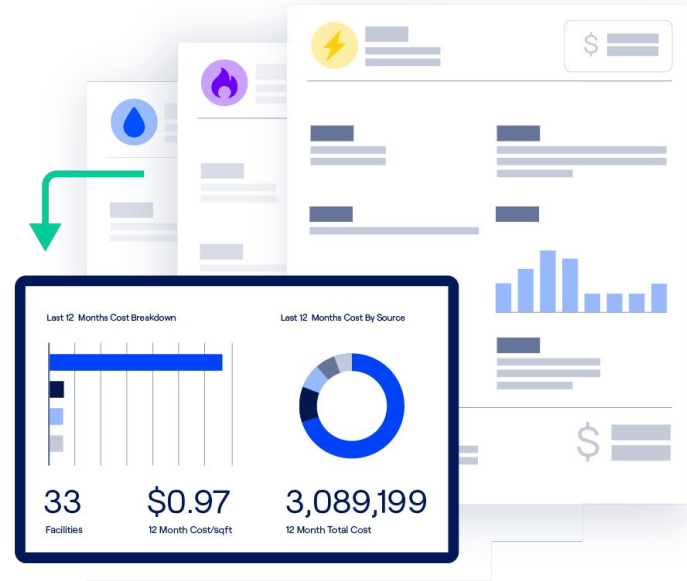


1. Check Vital Signs = Measure

Start by collecting monthly building data on:

- Cost
- Usage

...there are both free and paid tools that can help.



Audience Participation

How do you collect your monthly building data?

1. I don't right now
2. Bills are in a filing cabinet
3. Spreadsheets
4. Software
5. My buildings are perfect and don't need to be measured. 😊

Respond in the poll!



2. Make A Diagnosis = Analyze

Analyze performance by looking at monthly:

- ENERGY STAR scores
- Seasonal trends
- Peer benchmarks
- Utilization averages

... then dive deeper with data by the hour and minute.



1 to 100 ENERGY STAR Scale



3. Implement Wellness Plan = Improve & Control

Typically simple + low cost things that you can implement:

- Behavioral changes
- Operating schedules
- Setpoint adjustments
- Energy-friendly strategies





Success Stories

Corrections

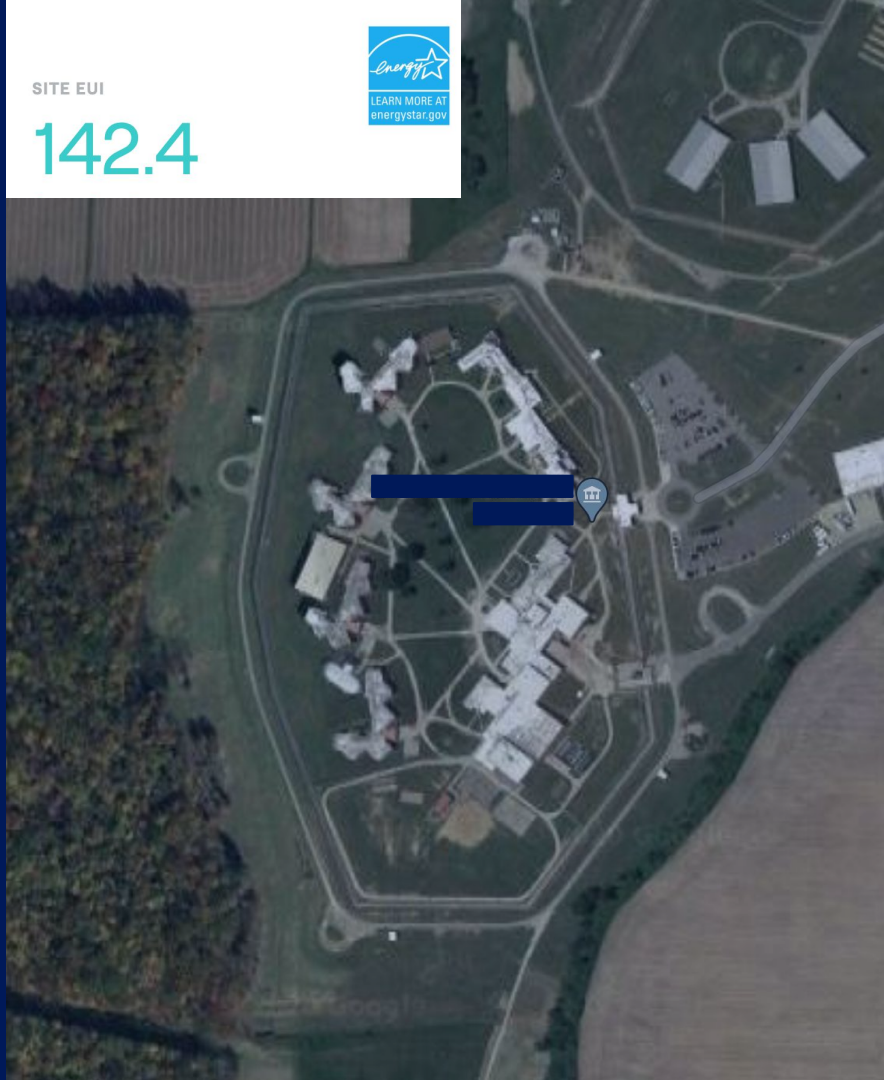
LOCKS UP SAVINGS

- 150,000 square feet
- Large-Volume energy user
- Monthly utility tracking

Lesson: hold your Utility provider accountable with data.

SITE EUI

142.4



**\$380,000
in savings**

Natural Gas Bill Details





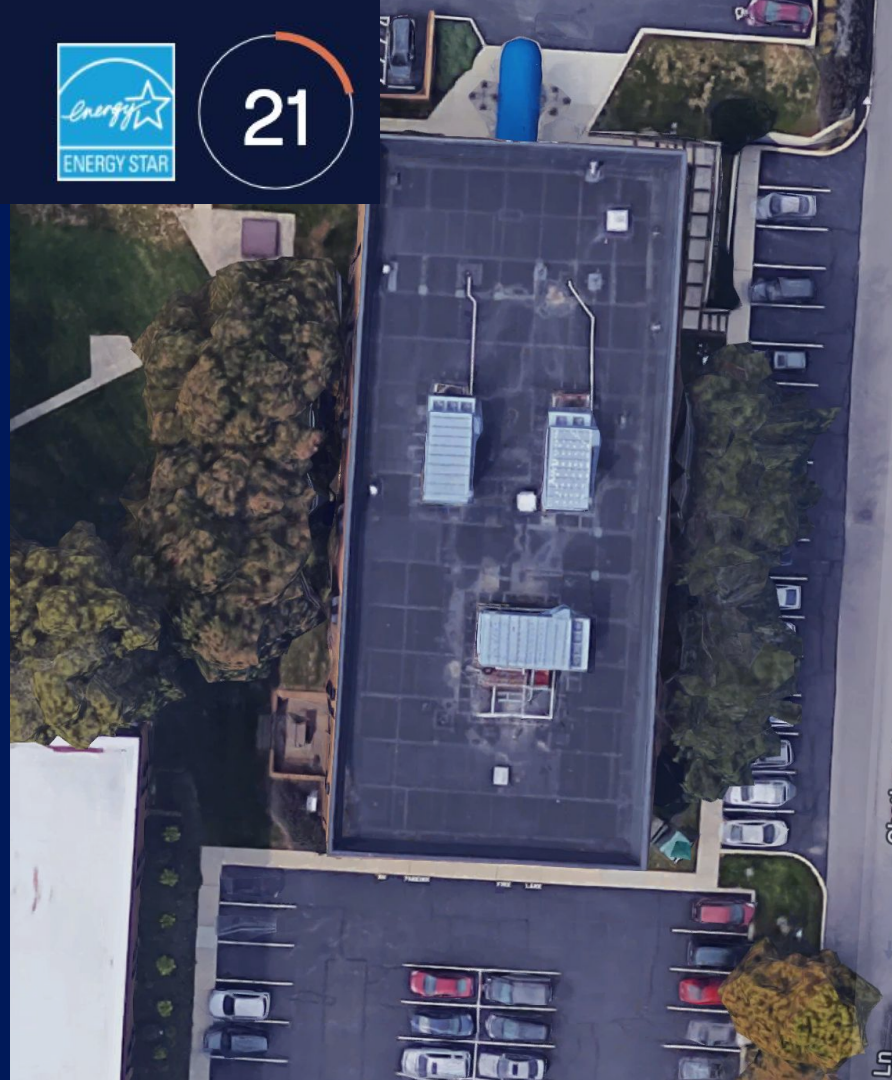
21

Healthcare

THE OBLIVIOUS OFFICE

- 30,000 square feet
- No special equipment
- Real-time monitoring
- BAS System

Lesson: hold your buildings accountable with data.



Report Settings

Integration

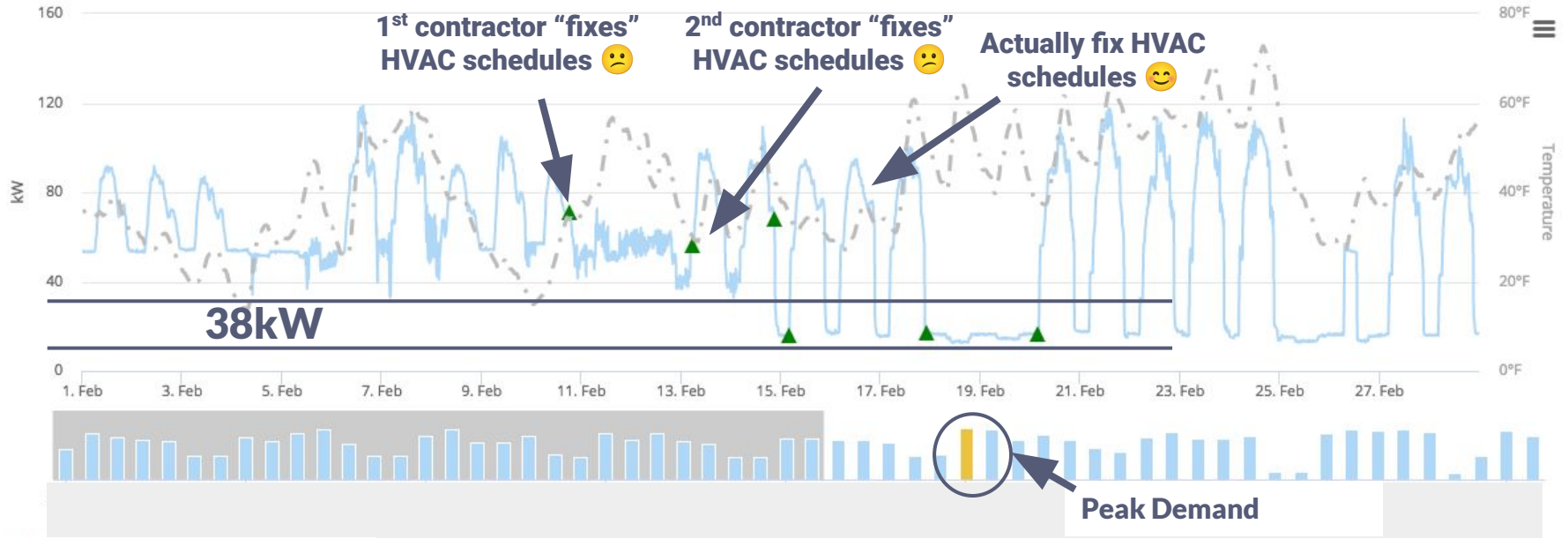
- Electric - Electric Me... ▾

Submit

Report



Line Bar



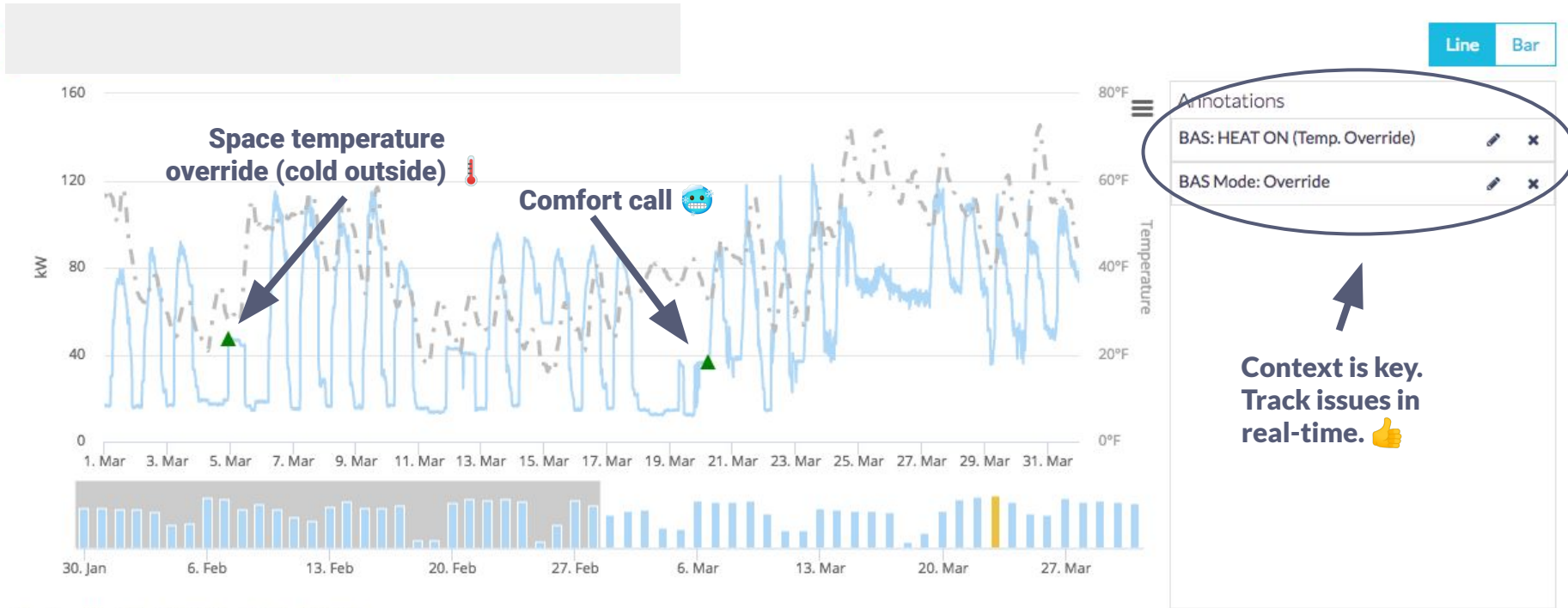
Report Settings

Integration

· Electric - Electric Me... ▾

Submit

Report



**Context is key.
Track issues in
real-time. 👍**

Report Settings

Integration

- Electric - Electric Me... ▾

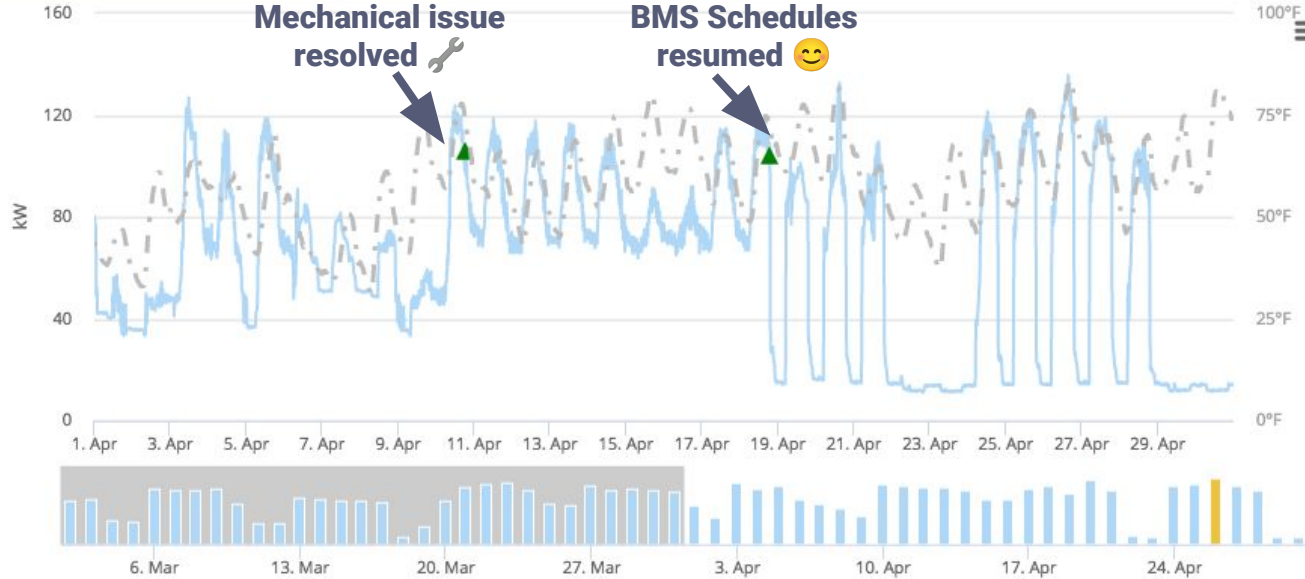
Submit

\$30,000
in savings

Report



Line Bar



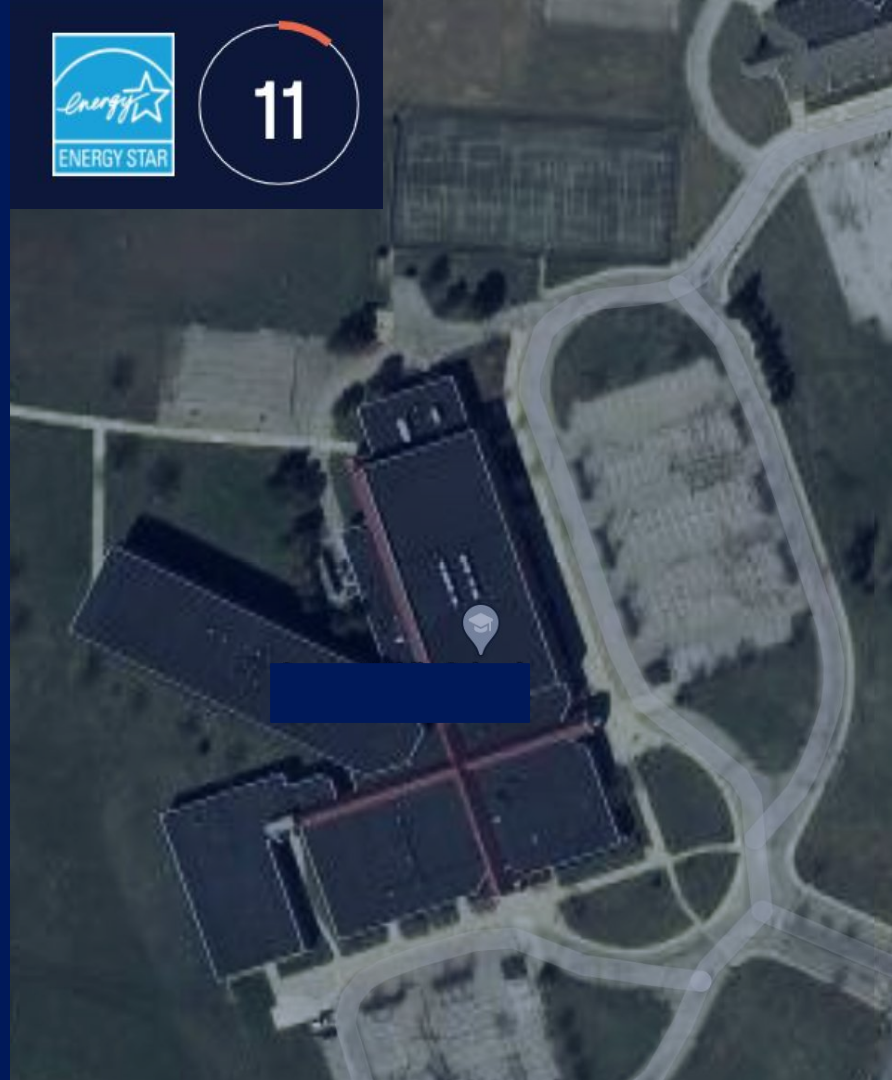
Annotations	
Mechanical Issue Fixed	
BAS Mode: Scheduled	



School Building

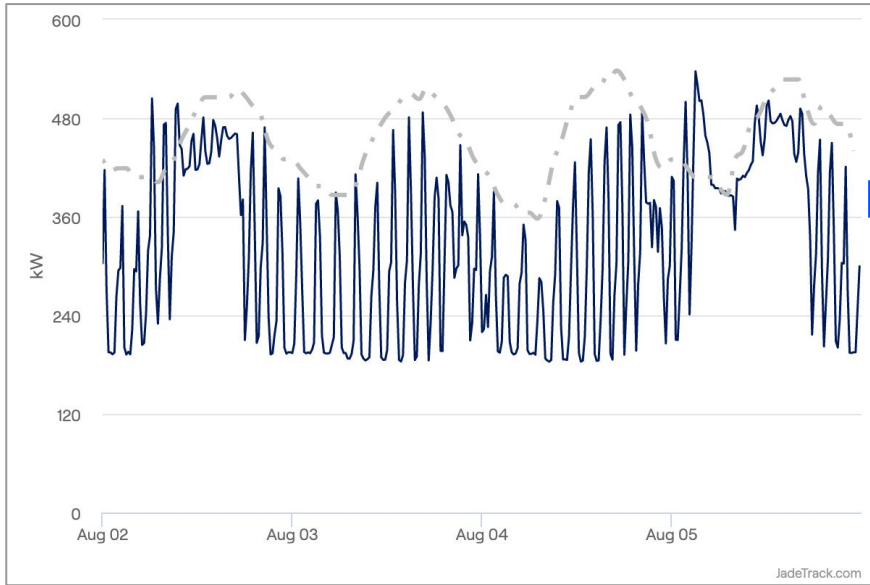
- 140,000 square feet
- Ordinary HVAC system
- Real-time monitoring
- BAS System

Lesson: beware faulty logic in the building's automation system.

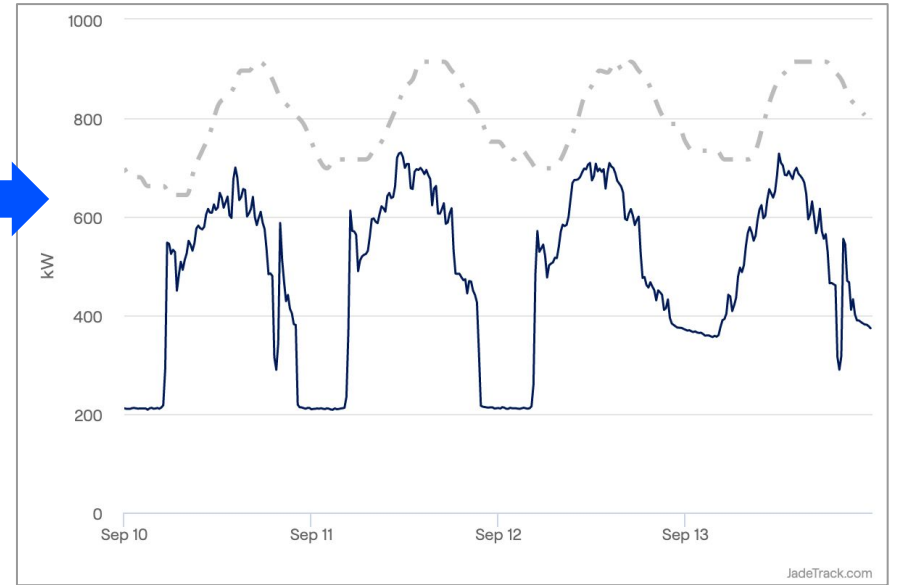


\$1,500 savings/month

Before 😞



After 😊



Audience Participation

The number one problem in my buildings is _____.

Add your answer in the chat!



The background is a solid dark blue. In the four corners, there are decorative circular patterns. Each pattern consists of a central circle, an inner ring, and an outer ring. Small white dots are placed at the top and bottom of the inner ring. The patterns are partially cut off by the edges of the frame.

An Intro to JadeTrack



A cloud-based platform for healthier, more efficient buildings.

Operate your building at peak performance with building insights and real-time energy data.



JadeTrack

JadeTrack offers a variety of products to manage your resource usage more proactively than ever before.



Utility Bill
Management



Real-time
Performance



Sustainability
Kiosks

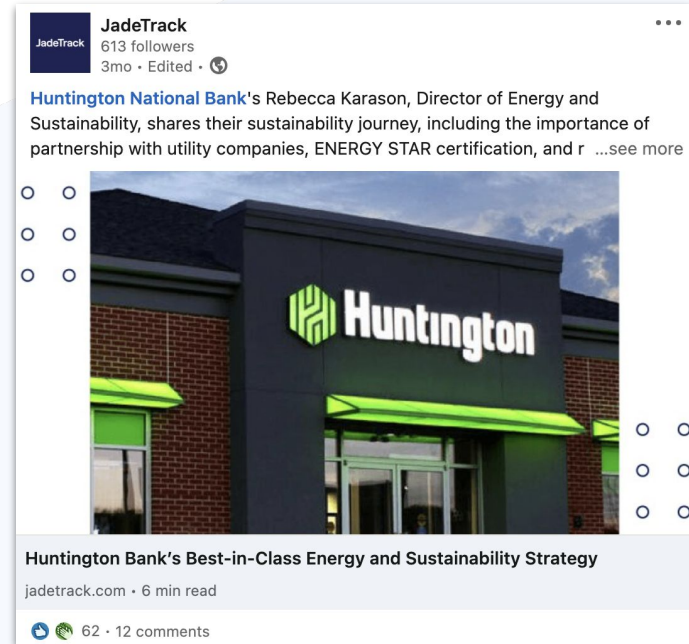
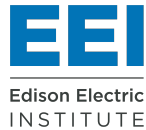


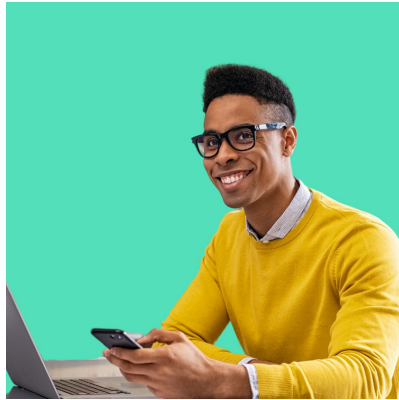
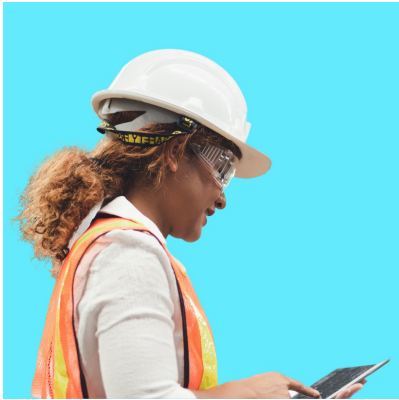
Program
Management



JadeTrack Will Amplify Your Successes

- Case Studies
- Webinars
- Social Media Posts
- Industry Events





With JadeTrack, you get unlimited user seats, which allows for organization-wide access and visibility across teams.

Q&A

The background is a solid dark blue color. In the four corners, there are decorative geometric patterns. Each pattern consists of a central circle, surrounded by two concentric dashed circles. Small solid circles are placed at the intersections of the dashed lines. The patterns in the top-left and bottom-right corners are complete, while the ones in the top-right and bottom-left corners are partially cut off by the edges of the frame.

Thank You



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