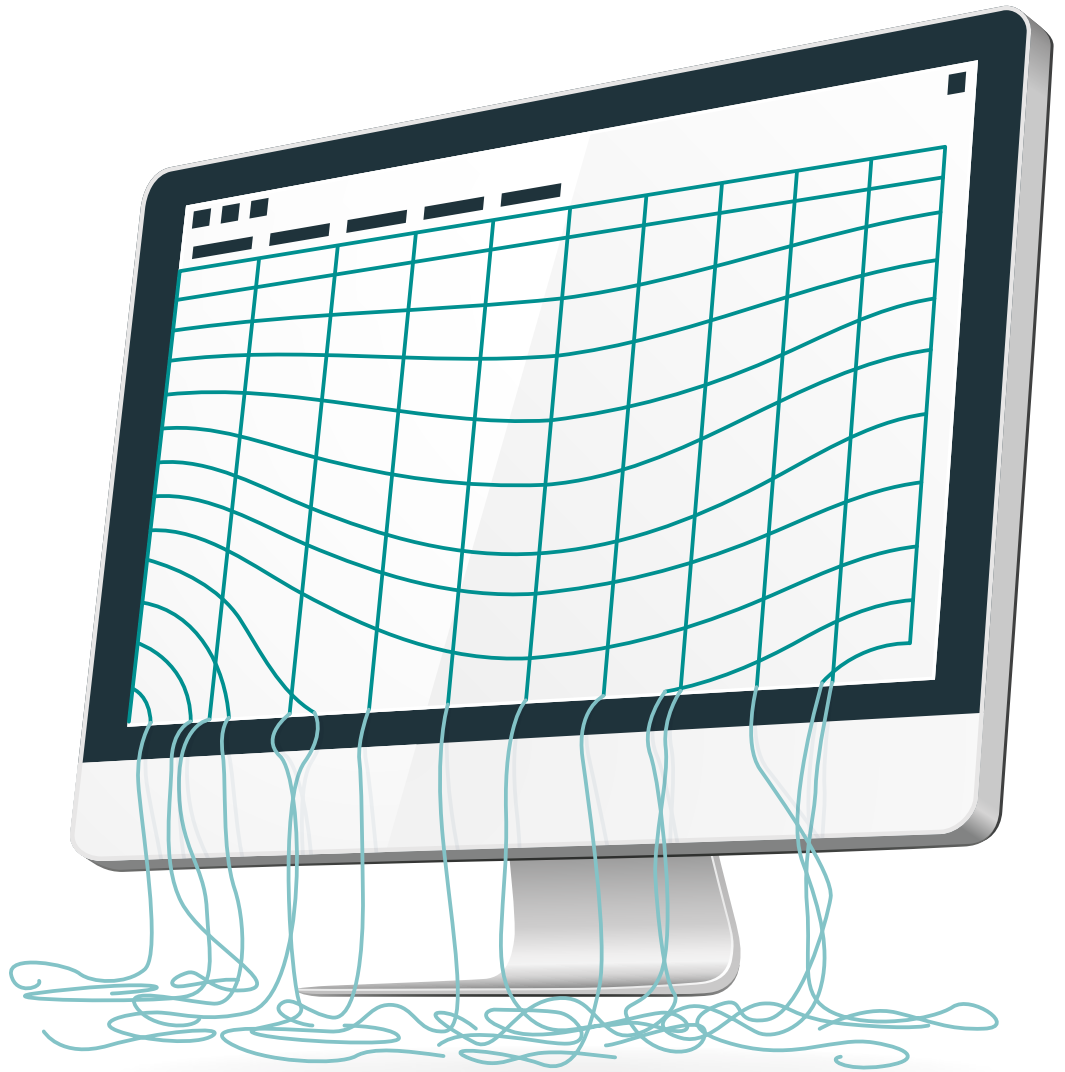




ATRIUS®



Why  
Spreadsheets

**FAIL**

Energy and Sustainability Teams

# The **Truth** About Spreadsheets

## **Spreadsheets are failing energy management programs.**

As more organizations look to incorporate innovation, sustainability, and cost savings into their energy programs, they are coming to grips with this important truth.

It is no longer viable--or smart--to have teams spend their precious time manually filling in data, scanning each bill for their biggest cost drivers, and hoping the graphs make sense as they present findings to executives and finance. For most organizations today, time is money: *a resource they cannot afford to waste.*

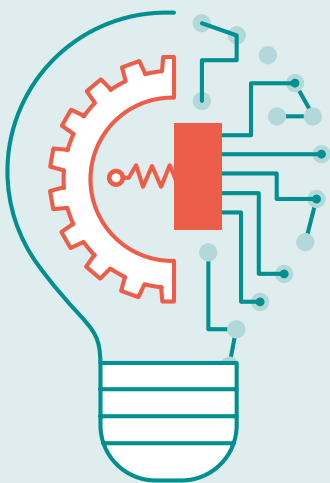
## **There is a better way**

With automated utility bill management and real-time energy data centralization in an **Energy Management Information System (EMIS)**



# Entering the Era of **Modern** Energy Management

Innovative energy teams employ technology to centralize and automate utility bill data while using real-time data to uncover savings opportunities across their portfolio. An Energy Management Information System (EMIS) is an essential tool for streamlining and modernizing energy management programs. Thanks to core data analytics, benchmarking, real-time data, and the ability to enable building optimizations through the cloud, modern energy management is paving the way for smarter, more efficient buildings.

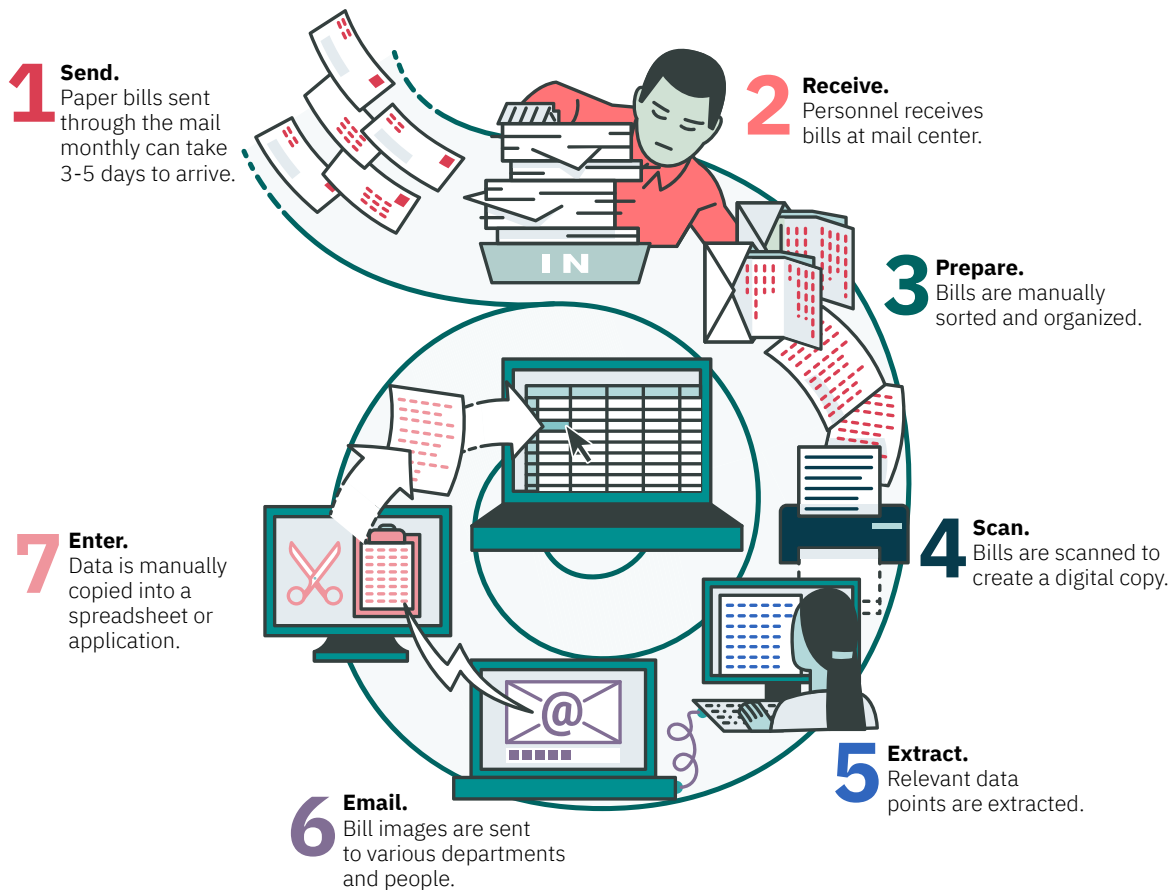


**“** There’s so much data and so little time to process and analyze... that’s part of why we invested in Atrius. We needed to get clarity from our data, not only to capture it, but also to find answers inside of it.

**Martha Larson**  
Energy and Sustainability Manager  
Carleton College

# Does This Look Familiar?

If you're using spreadsheets to manage your energy data, this process may look all too familiar to you:



## The Problem with Spreadsheets

**Data errors:** Manual data entry has an average 3% error rate. A single wrong entry can significantly impact energy calculations, key performance indicators (KPIs), and budgets.

**Missed opportunities:** Time spent collecting and storing data in spreadsheets is time taken away from opportunities to enact real change on your energy use and spent.

**No easy reporting:** Spreadsheets are very dependent on manual effort to generate reports and dashboards, taking a lot of effort and time to maintain and update.

# Leaving Spreadsheets for **Greater** Accuracy and Insights

## Carleton College: Before Atrius

When Energy and Sustainability Manager Martha Larson joined Carleton College in 2010, utility data was widespread and managed across different departments, creating three main challenges:

- 1. Wide spread data:** It was challenging and time-consuming to extract accurate data from Carleton's building management system, utility bills, solar panels, and other systems.
- 2. Manual meter readings:** Once a month, staff would spend hours driving around campus to record and transcribe meter readings. Human error resulted in inaccurate readings and reports.
- 3. Misaligned resources:** Instead of focusing on energy conservation measures, the team spent most of their time gathering, purging, and organizing data into spreadsheets.

Prior to using Building Insights, here's how the university managed and organized its energy data:





# Carleton College: With Atrius

Now, Larson and her team focus effort on high-value activities, like energy analytics, insights, and new sustainability initiatives.

- **Faster action with real-time energy usage alerts:** With real-time alerts and thresholds set in Building Insights, the energy team now knows exactly when spikes in energy use occur. Armed with data at their fingertips, they no longer have to wait weeks before acting on spikes.
- **Better analysis with clear, user-friendly dashboards:** The energy team regularly reviews Building Insights reports and dashboards to get an accurate reading for how the campus is using energy on a weekly, daily, and hourly basis.



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This is how they manage and utilize their energy data today, with the help of **Building Insights** using automated utility data management and real-time data integrations.



“ We use **Building Insights** to uncover and amend energy usage anomalies, saving **\$35,000** in just a few months.

**Martha Larson**

Energy and Sustainability Manager  
Carleton College

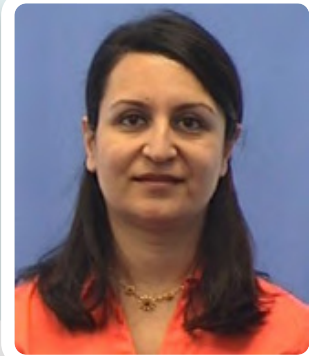
Juniper Networks:

# Save Time. Increase Energy Management Efficiency



**Layla Monajemi is the Senior Global Energy Manager for Juniper Networks**, a leading cybersecurity and networking company. Prior to using Building Insights, energy managers manually collected and organized all of Juniper Network's energy and utility data in spreadsheets. When Monajemi first joined the organization, she spent more than 10 hours a week on average just collecting the data. With a portfolio of more than 22 buildings with 2 million square feet of space, she knew it was time to centralize and automate.

Since Juniper Networks began using Building Insights, Monajemi and her team spend less time collecting and entering spreadsheet data and more time on energy conservation measures and strategies.



For other companies looking to make the switch from spreadsheets to an EMIS, here are three tips Monajemi recommends:

- 1. Ensure your local utility supports bill integrations:** Not all utility providers are alike, so make sure you check.
- 2. Set aside time to audit your systems and data:** Monajemi recommends allocating two to three months to vet your data integrity and ensure that third-party utility companies integrate with your systems correctly.
- 3. Evaluate your options carefully:** Choose the energy management information system that

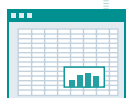
# Begin Your Journey to Modern Energy Management

**The majority of energy leaders still spend much of their time manually collecting data for analysis.** From large energy teams to the one person department, the time and labor intensive process drains resources that are much better spent on energy conservation measures. When teams combine the upfront time savings of automated utility and real time data with the power of analytics and insights into their buildings' performance, they begin their journey to modern energy management.

**The first step for many organizations** in the journey to modern energy management is to move from a manual, spreadsheet-centered energy management process to automated utility bill management. Automated data collection frees up your energy teams so that they can spend more time strategizing and executing on real energy initiatives.



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## Manual Data

- Manual Data import via data-files or entry
- Unified view for trending and comparison analysis
- Share dashboards with stakeholders



## Automated UBM

- Utility bills import into a unified system
- Unified bill detail views to improve operations
- Bill reconciliation, trending, and analysis for planning



## Real-Time Data

- Real-time utilities/IoT in a unified system
- Save through scheduling, peak demand, and real-time alerts
- Share real-time information w/ occupants and





# Why You Need Automated Utility Bill Data

With the right tools, modern energy management empowers you to improve building efficiency, sustainability, employee wellbeing, and productivity, all while seeking to lower operational costs.

- 1. Bill errors:** Catch mistakes in meter or usage calculations earlier to avoid costly invoices at the end of the month due to billing errors or inaccurate utility readings.
- 2. Optimize rates:** Understand how much energy your building uses to negotiate better utility rates across your organization.
- 3. Richer data:** Get more granularity in your utility data. By examining individual line items, you'll be able to better understand and analyze cost drivers and peak demand charges.
- 4. Automated reports:** Save time by automating previously manual tasks, such as allocating usage to tenants, centralizing bills, and pulling scheduled reports.
- 5. Benchmarking and compliance:** Benchmark your buildings using Energy Star and other tools by automatically pushing data to Portfolio Manager and viewing Energy Star scores directly in Building Insights.

# The Truth About Spreadsheets

Compared to the historical, long-term insights automated utility data provides, real-time data gives you instant insights into energy consumption as it occurs. By bringing this data into an EMIS like Building Insights, energy teams harness the power of these insights to drive immediate operational change and occupant behavior.

- 1. Identify areas of need:** Historical data and real-time usage metrics helps identify the buildings that energy teams should focus on first.
- 2. Identify spikes in energy use:** Pinpoint unusually high energy usage as it's happening. This gives you the opportunity to address the cause and make appropriate preventative changes.
- 3. Smarter analytics:** Real-time data enables you to be proactive in identifying energy consumption patterns. Spot energy spikes and anomalies as they happen to save you time and money.
- 4. Metric and KPI tracking:** With real-time data, you instantly know how your initiatives are tracking, allowing you to adjust your course or keep the momentum going.



# Why an **EMIS** Is Crucial for Modern Energy Management



## What is an EMIS?

Energy Management and Information Systems (EMIS) comprise a broad family of tools and services to manage commercial building energy use. These technologies offer a mix of capabilities to store, analyze, and display energy use and system data.

## How Is an EMIS Different from Spreadsheets?

An EMIS improves energy efficiency by providing better access to energy data along with analytics and insights into that data. Everyone--from commercial building owners to facilities managers to energy and sustainability teams--benefit from the insights an EMIS provides into building performance. An EMIS encourages collaboration and engages occupants to facilitate real change within their buildings to maximize energy savings.



# Here's how **Building Insights** compares to spreadsheets

## Spreadsheets

Users spend hours inputting data manually.

Reporting is time-consuming, subject to human error, and lacks real-time data.

Spreadsheets lack built-in capabilities for data normalization. Users may need to look up conversion rates online and create formulas to meet their needs.

The more data in spreadsheets, the more unmanageable the data becomes, making it harder to share information.

Insights are limited to the functions and graphs manually generated, often lacking the ability to dive deep into the data.



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Automated data integration and collection eliminates manual processes.

Reporting is flexible, with multiple options.

Normalized data across various factors, such as weather and currency.

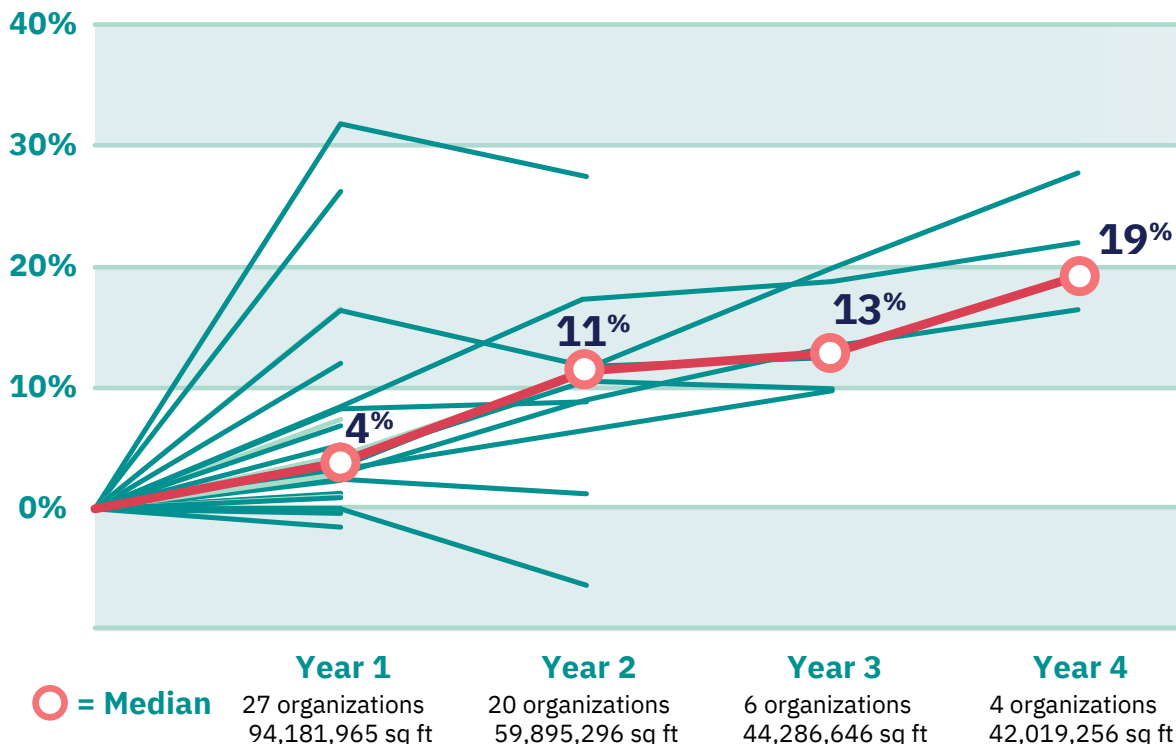
Sharing information across your team is easy with scheduled and automated reporting.

Dive deep into data for richer insights with line item analysis and interval data.

# Calculate Your Savings

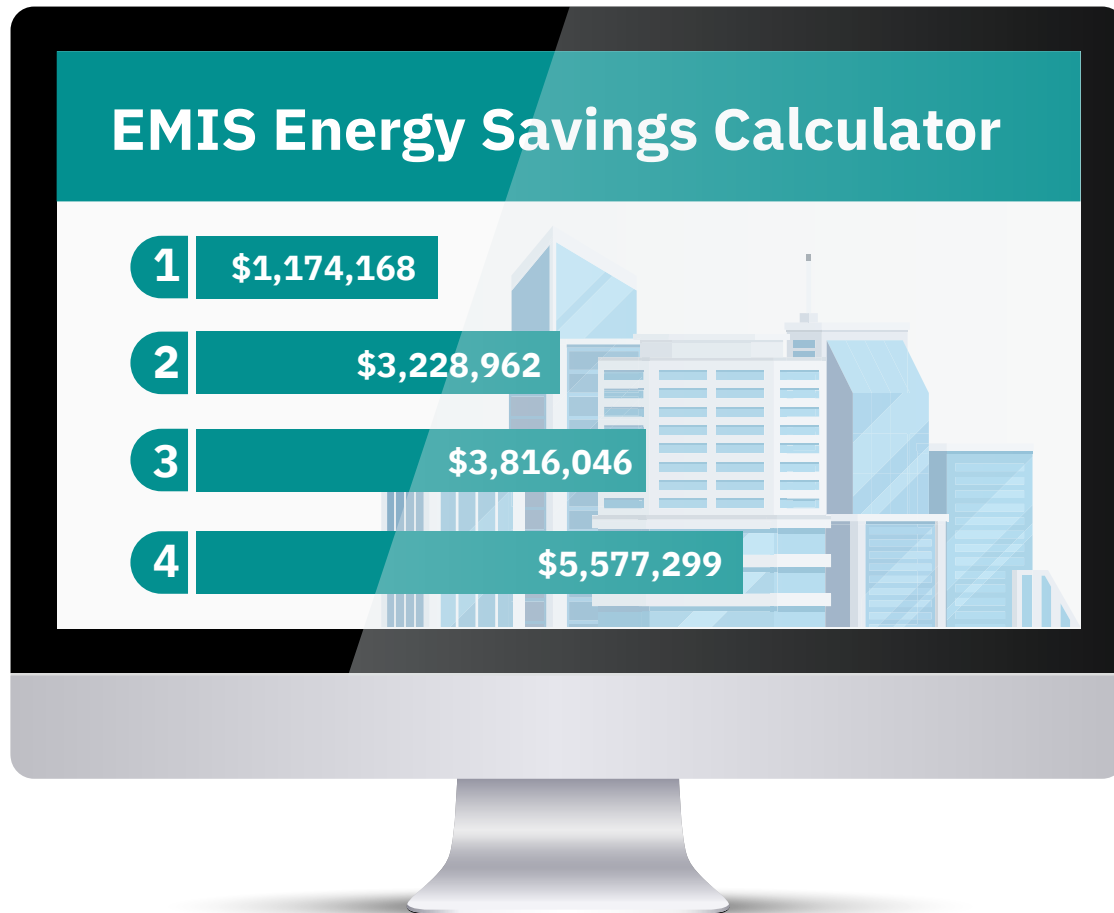
## U.S. Department of Energy (DOE) Research

A study conducted by the Department of Energy followed 27 organizations with a combined 679 buildings spanning 94 million square feet that installed an EMIS. The goal of the study was to track how successful the organizations were in reducing energy after they implemented an EMIS. The results showed that the average organization will see a 4% reduction in energy use just one year after an EMIS installation. **After four years, organizations can expect to see an average of 19% in savings.**



# Try it yourself

To help companies understand the value an EMIS can bring to their organizations, we created this [free ROI calculator](#).

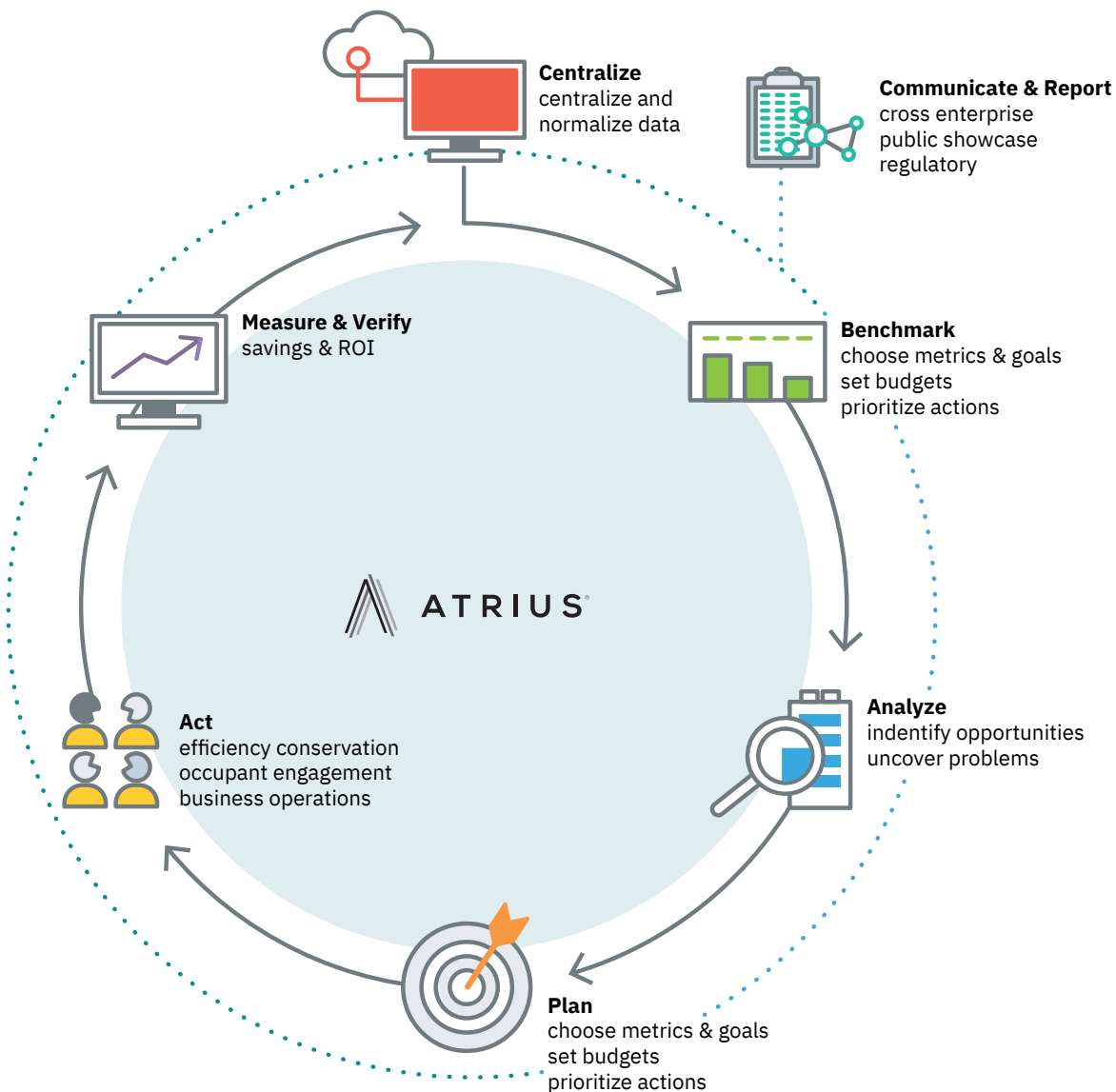


Based on the DOE research and our calculator, an organization with an annual spend of \$29 million across 22 million square feet could expect to realize these savings over a four-year period after installing an EMIS.

# Methodology

Atrius Building Insights platform leverages your existing building data and infrastructure to help unlock as much as 20% in energy savings. With Building Insights, you benefit from centralized access to building data analytics that will empower your energy management team to make better decisions and drive down energy usage.

With real-time alerts and benchmarking, you can measure the impact of your existing energy conservation practices and find ways to further improve performance and reduce costs.



# Modernize Your **Energy** Management Program Today

Just as you've transformed so many aspects of your business, it's time to overhaul how you manage your energy consumption data. With a modern EMIS system like Building Insights, you can say goodbye to spreadsheets and embrace a more efficient, accurate, and cost-effective way to reduce energy spend and reach your sustainability goals. As you make the move to upgrade your energy management program, take advantage of these resources to help you unlock the power of analytics, insights, and automated data.

- Join the DOE's Smart Energy Analytics Campaign. This public-private partnership encourages the use of EMIS technologies and will provide information, key findings, and best practices to help your organization gain full value from your EMIS.



Atrius is founded on a **deep, empathic understanding** of the rapidly evolving pain points of operating modern spaces. From the world's largest airports to cutting-edge corporate campuses and venues, we understand spaces are more than walls, windows, and ceilings.

The realization of our strategic vision is a class of innovative solutions working in sync to revolutionize how people operate, work in, and experience spaces. Atrius is part of the Intelligent Spaces Group, a new Acuity Brands division revolutionizing spaces to sense, think, and act.