CATALYST

The ROI of an energy management system

Sarah Uranowski
Director, Product Marketing

Agenda

Making the case for energy management software

- ROI of EMIS: what the experts say
- The ROI of EnergyCAP
- Making the business case

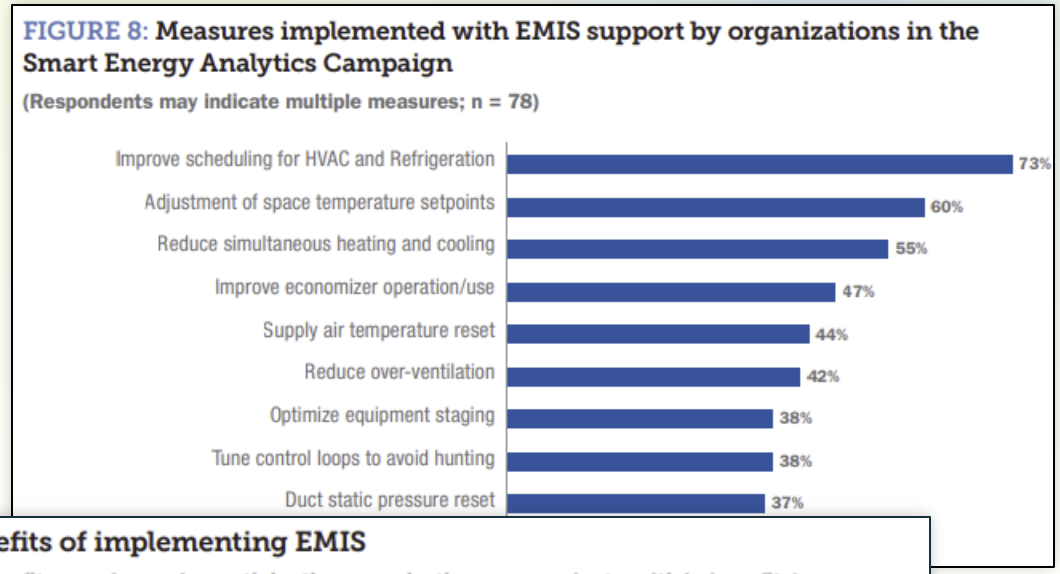
Getting ROI out of your energy management software

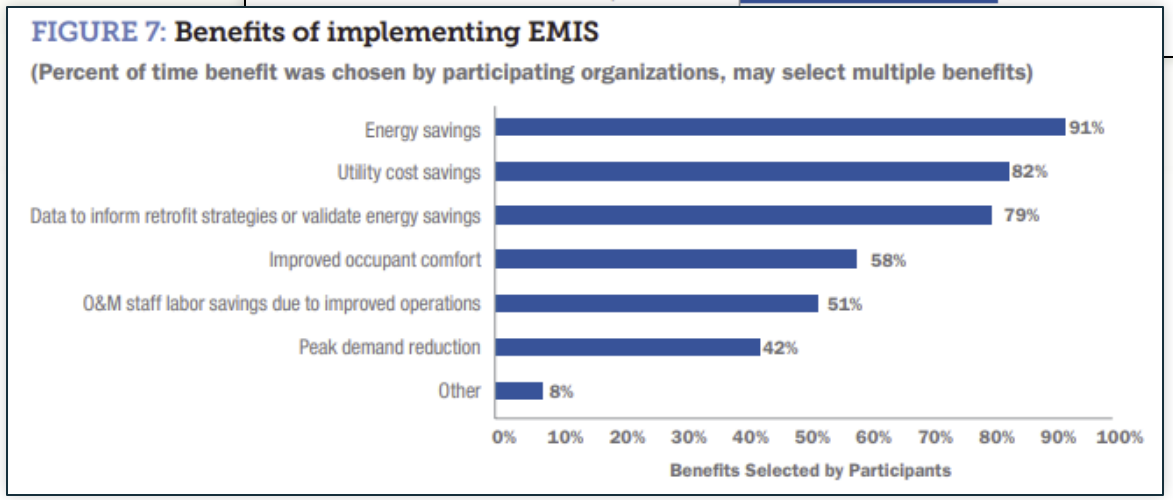
- Where to begin
- How to advance

Lawrence Berkeley National Lab EMIS study

The Smart Energy Analytics Campaign, a public-private sector partnership program funded by the U.S. Department of Energy, published in 2020 a widely-used report on the value of EMIS.

- 100+ organisations participated
- 6,500 buildings were evaluated
- Found a median energy savings of 3% after 2 years
- Median simple payback period of 2 years
- Other studies have found a payback period of 2.5–6.5 years

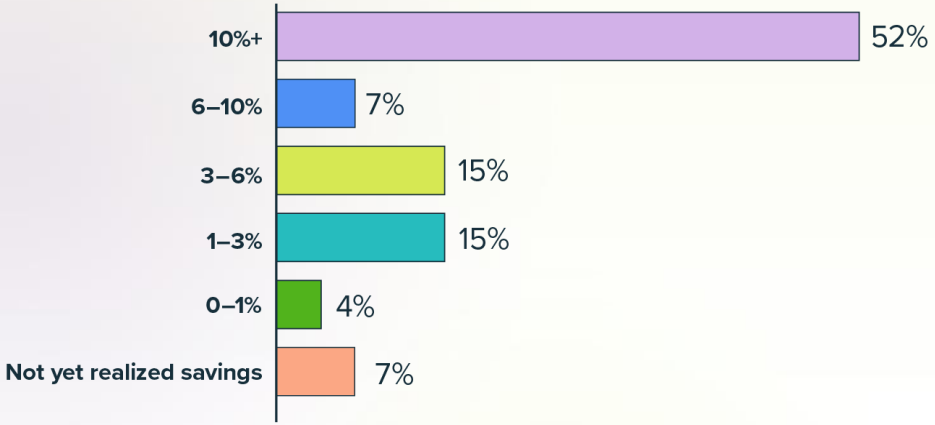




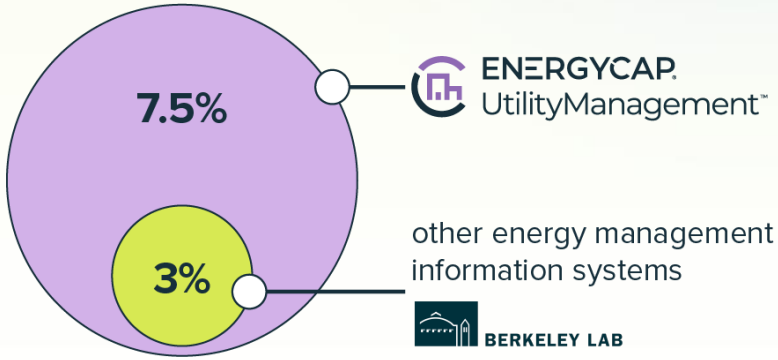
The ROI of EnergyCAP customer survey

- **More than half** of customers save **10% or more** YoY on the total cost of their utility bills with EUM
- Average YoY utility bill savings with EnergyCAP UtilityManagement is **2.5x greater** than other energy management software solutions

YoY annual bill savings after EUM implementation



YoY utility bill savings with EMIS vs EnergyCAP UtilityManagement



What about ROI?
The majority of customers saw an ROI in less than 3 years. A quarter saw an ROI in under a year.

Building the business case // getting buy-in

Why it's worth the investment

Utility, energy, and sustainability management is too complex for spreadsheets

EnergyCAP customers report

- 10% annual savings on utility bill
- 23+ hours/month saved with (37 with Bill CAPture)

A well-implemented EMIS helps avoid

- Costly billing errors
- Missed efficiency opportunities
- Compliance risks

Show that doing nothing costs more

The ROI of your EMIS is in your hands.

EnergyCAP is tool to surface insights for action.

Inaction = longer time to value

Building the business case // getting buy-in

Speak the language of your stakeholders

Facilities Teams

- Want **seamless rollout** and system integration
- Save time, simplify reporting, and eliminate rework
- **Don't want** more work

Proof points

- Designed to work with BAS and FDD accounting platforms
- Advocate for their needs
- A heads up, not an assignment

Finance Leaders

- Focus on **payback and efficiency**
- Want predictability and confidence

Proof points

- EnergyCAP typically pays for itself in **2–3 years**
- Features for them – budgeting, accruals, A/P integration

Sustainability Managers

- Need **trusted data** for Scope 1, 2, and 3 reporting
- Helps meet internal climate goals and external mandates

Proof points

- Tools to meet goals and simplify complex reporting.
- Scope 1, 2 and 3 automatically and in your single source of truth

IT Teams

- Prioritise **secure, cloud-ready solutions**
- Value scalability and data protection

Proof points

- End-to-end encryption and regular independent audits, ensuring
- Data protection and system resilience

Building the business case // be your best advocate

Stakeholders understand costs, savings, and risk—not just effort

Data gives you power to:

- Show the true value of your team's work
- Prove savings—time, money, emissions
- Make a case for more budget, tools, or headcount
- Elevate your impact beyond facilities to finance, ESG, and leadership

Without data, your team's work stays behind the scenes.

Your turn: what was the last thing you had to explain or defend?

Building the business case // the financial case

ROI analysis	Cost-benefit comparison	Budget justification
• Typical payback within 2—3 years • Quantifiable savings from energy waste reduction and error detection	• Compare current inefficiencies (manual processes, missed savings) against the cost of implementation • Leverage ROI calculators and historical customer data (e.g., 10%+ savings, 2.6-year average ROI)	• Align the software investment with operational budgets and capital improvement plans • Consider available grants, rebates, and incentives

Justification and overcoming objections

Common concerns	*"It's too expensive"* *"We're fine with spreadsheets"* *"We don't have the resources"*
Counter strategies	▪ Demonstrate fast ROI and long-term savings ▪ Outline the opportunity cost of "not acting" ▪ Highlight time and cost savings with measurable metrics ▪ Present real-world success stories
Consensus building tips	▪ Build a coalition of champions across facilities, finance, IT, and sustainability team ▪ Present a clear, unified vision for operational excellence

Your turn: what are your top priorities when it comes to utility and energy data?

Step 1: Foundations // use the data you already have

Let your bills tell the story

- Centralise bill data
- Consolidate into a single source of truth
- Identify billing errors and anomalies
- Investigate unusual use, cost, and demand to find and fix active issues
- Start with the easiest questions

Estimated savings: 1–3%

Bill flags

98% of customers take action on flagged bills every single month.

This powerful tool automatically audits your utility bills as they come in.

Foundations // Benchmark buildings for variance

Spot differences to prioritise actions

- Compare buildings apples-to-apples to flag issues and save cost
- Prioritise investments and focus behavior programs based on data-backed insights
- Support ESG reporting and compliance initiatives

"For finding outliers, EUI is a good place to start – even down to the commodity. Knowing that you have a commodity that is out of line compared to other buildings can tell you when something is wrong. From there, use the benchmarking tool in EnergyCAP to identify which buildings to make changes in."

-Melanie Stewart, Optimized Systems

Benchmarking

Find potential issues like leaks and theft

Benchmark sites, buildings, and meter groups

Automated EUI calculations and visual rankings

Foundations // Mini case study: bill flags

The situation: In their first few months with EnergyCAP, the city of Baltimore migrated historical billing data dating back to 2003. While reviewing billing cycles in the new system, they uncovered major discrepancies flagged by the platform.

The discovery

Lots of bill errors—big and small

A single flagged bill revealed 10x expected usage

One offhand review led to a $100,000 refund from a vendor

The action

The team reached out to each responsible agency to

- Confirm if accounts were still needed
- Identify inactive meters or future renovations
- Close unused accounts

The impact

$486,000 in total bill errors uncovered in year one

“There’s going to be a refund of $100,000 just sitting there—if no one’s looking at it, you’re not going to get it.”

Your turn: what data do you find the most challenging to get?

Step 2: Automate data entry // Bill CAPture and managed services

Eliminate manual entry and find more errors

- Manual bill data entry consumes way too many hours of your valuable time
- Delivers clean, ready-to-use data without manual effort
- Bill CAPture Managed Services means we help take action to resolve or escalate any issues preventing successful processing

Estimated additional savings: 2–5%

Cumulative savings/cost avoidance: 3–8%

Bill CAPture Services

Nearly 40 hours/month of time saved on average

Customers take cost-saving action on nearly 4x the number of bills flagged

Foundations // Mini case study: bill flags

THE UNIVERSITY OF ARIZONA

The situation: The university's utilities team relied on a legacy system with limited reporting functionality and unreliable data aggregation. Every month, it took two full-time staff members **5 to 8 business days** to manually compile, validate, and estimate utility data for financial reporting.

The discovery

The manual process was time-consuming and error-prone.

Data was often missing or incomplete

The team resorted to estimates based on historical usage

The action

Bills are now digitally captured, audited, and validated

Manual entry and aggregation is eliminated

Issues are flagged before they create reporting delays

The impact

Utility accounting time reduced by 80%

Task that once took 8 business days now takes 2 business days

More time on analysis and insight, less on manual tasks

More accurate reporting with less estimation and rework

Step 3: Monitor usage // Smart Analytics

From reactive to proactive

- Identify usage spikes, abnormal patterns, and waste in near real-time
- Act before issues show up on the bill
- Use trend and interval data to build the business case for retrofits, then validate with cost avoidance
- Optimise schedules and set points based on actual demand to reduce runtime, flatten peaks, and avoid unnecessary consumption

Estimated additional savings: 5–10%

Cumulative savings/cost avoidance: 8–18%

Cost Avoidance

Measurement & Verification of energy and cost savings.

Direct, accurate estimate using IPMVP methodology

Validate ROI post-upgrade with actual performance tracking

Monitor usage // Mini case study—a costly water bill

THE UNIVERSITY OF ARIZONA

The situation: A utility company's meter had failed, so they estimated the university's monthly usage based on data from the same month in the prior year—a period when the university had temporarily stopped using its own well system and relied entirely on utility-supplied water.

The discovery

The University received a bill 7x higher than expected

The bill was flagged for audit by EnergyCAP due to unusually high cost

The action

Review interval data for the entire month

Refute the estimated bill

Provide detailed documentation of actual usage for the billing period

Demonstrate that the previous year's usage was an outlier due to a one-off operational condition

The impact

Overpayment of nearly **$100,000** was avoided

"Just about every equipment issue I've seen in my career was pre-symptomised by a change in energy use. That's the canary in the coal mine."

-Mike Hoffman, Energy Manager

Your turn: What are you KPIs? what are your go-to tools to evaluate them?

Step 4: Comply and report

From reactive to proactive

- Automate scope 1, 2, and 3 with Carbon Hub
- Instant insights for your team, instant answers to ad-hoc questions
- Showcase the impact of your work
- Save hours of data gathering and spreadsheet maintenance
- Cross-departmental collaboration using shared insights

Estimated additional savings: 1–3%

Cumulative savings/cost avoidance: 9–21%

Reports and Dashboards

Skip manual data entry and reporting–focus on insights.

Easy to customise and share.

Scope 1, 2, and 3 data automatically in your single source of truth

Mini case study // reporting

The situation: Before EnergyCAP, utility accounts were managed in silos across multiple agencies. Some accounts had zero usage for years—but no one noticed, and the city kept paying monthly fees.

The discovery

After implementing EnergyCAP and centralising data, a simple report revealed.

- Dozens of accounts with no usage
- Some accounts had been open—and charged—for 20 to 30 years

The action

The team reached out to each responsible agency to

- Confirm if accounts were still needed
- Identify inactive meters or future renovations
- Close unused accounts

The impact

£13,000 in annual savings – just from closing unnecessary accounts in the first pass

Stopped decades of unnecessary charges

Your turn: for those of you delivering services: what's a small action that's had a big impact on a client's energy performance?

Take action

- Identify billing errors and maximise savings through centralised energy billing
- Align Time of Day (TOD) schedules with occupancy
- Review occupied and unoccupied setpoints
- Take advantage of unoccupied time by setting back equipment
- Conduct “soft” recommissioning of BAS
- Standardise set points

Shut it off, set it back, tune it up

Estimated additional savings: 10%+
Cumulative savings/cost avoidance: 25%+

Questions?

