



Finding ROI with energy conservation measures



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Agenda



1. **What counts as an ECM?**
2. **ECM records should tell the whole story**
3. **Use EnergyCAP functionality**
 - Custom fields
 - Energy project tracking
 - ENERGY STAR
 - Special adjustments
 - Other savings
 - Target comparisons
 - EUI goals
4. **Communicating ROI**

ECMs are often easy to identify but hard to execute and manage over time

The objective is simple: create a defensible record of what we did, why we did it, what it cost, and whether it worked.

What counts as an ECM?

Common operational ECMs

- BAS scheduling and occupancy alignment
- Occupied and unoccupied setpoint changes
- Soft recommissioning and control tuning
- Demand reduction and runtime reduction
- Behavioral measures and energy culture

Common capital ECMs

- LED lighting retrofits
- HVAC equipment replacements
- Chiller, boiler, pump, and motor upgrades
- Building envelope improvements
- Water conservation and renewable energy projects

Sometimes the best ECM is: Shut it off. Set it back. Tune it up.

The ECM record should tell the whole story

1. Problem — what condition, cost, risk, or opportunity drove the project?
2. Solution — what is changing operationally or physically?
3. Investment — what will it cost, and how is it funded?
4. Expectation — what savings, cost avoidance, or impact do we expect?
5. Timeline — when did planning, approval, implementation, and completion happen?
6. Evidence — what documentation supports the project?
7. Result — what happened after implementation?

The record should make sense to someone who was not in the room when the project was approved.

Capture the “before” condition

- Existing equipment, nameplate information, and condition
- Current operating schedule and control strategy
- Occupied and unoccupied setpoints
- Building occupancy and space use
- Known comfort, maintenance, or operational problems
- Utility consumption, demand, and cost history
- Relevant interval data, BAS trends, or runtime data
- Photos or screenshots that document existing conditions

Standardize the way you name and describe projects

Why it helps

- Improves searchability
- Makes reporting easier
- Supports portfolio analysis
- Preserves institutional knowledge
- Helps the next person understand what happened

[Facility] – [System] – [Measure] – [Year]

Examples

- High School – Gym Lighting – LED Retrofit – 2026
- Administration Building – BAS – Schedule Optimization – 2026
- Central Plant – Chiller 2 – Replacement – 2027

Calculate ROI and payback

Simple Payback = Project Cost ÷ Annual Savings

Example

- Project cost: \$250,000
- Annual utility savings: \$50,000
- Simple payback: 5 years

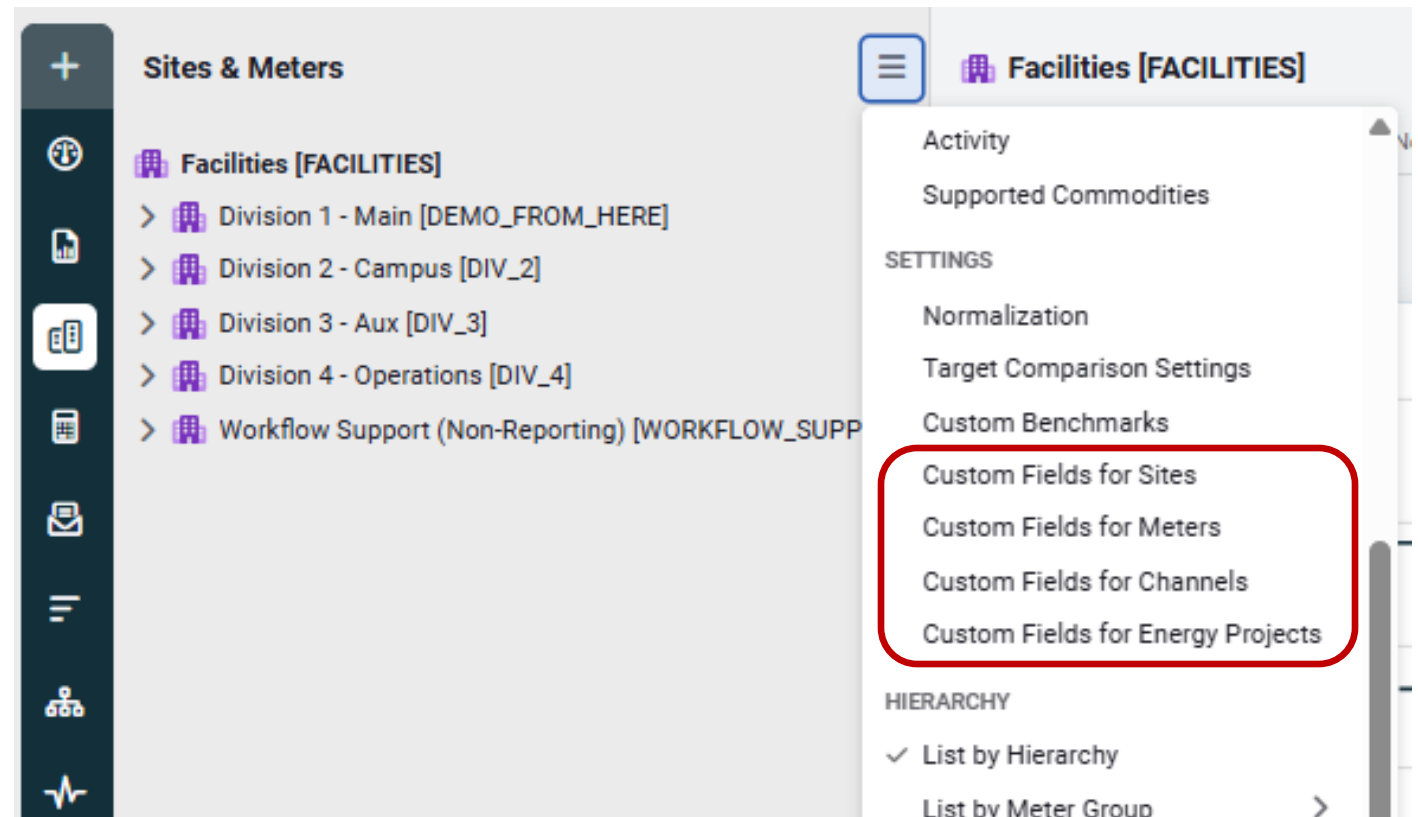
Finance does not just need to hear that it is a good energy project. Finance needs to understand what the organization gets for the money.

Custom fields overview

In addition, to those shown, custom fields are available for:

- Accounts
- Vendors
- Rate Schedules

[See Handout](#)



Record details in the Energy Projects

Add Energy Project

CancelNext: Custom Fields

Site

Discovery Drive

Name is required

Short name (used on charts)

*

Type

* Choose or add...

Expected impact

Choose

Start

MM/DD/YYYY

Completion

MM/DD/YYYY

Cost

\$

Rebate

\$

Cost savings

\$

Funding source

Energy savings

Manager

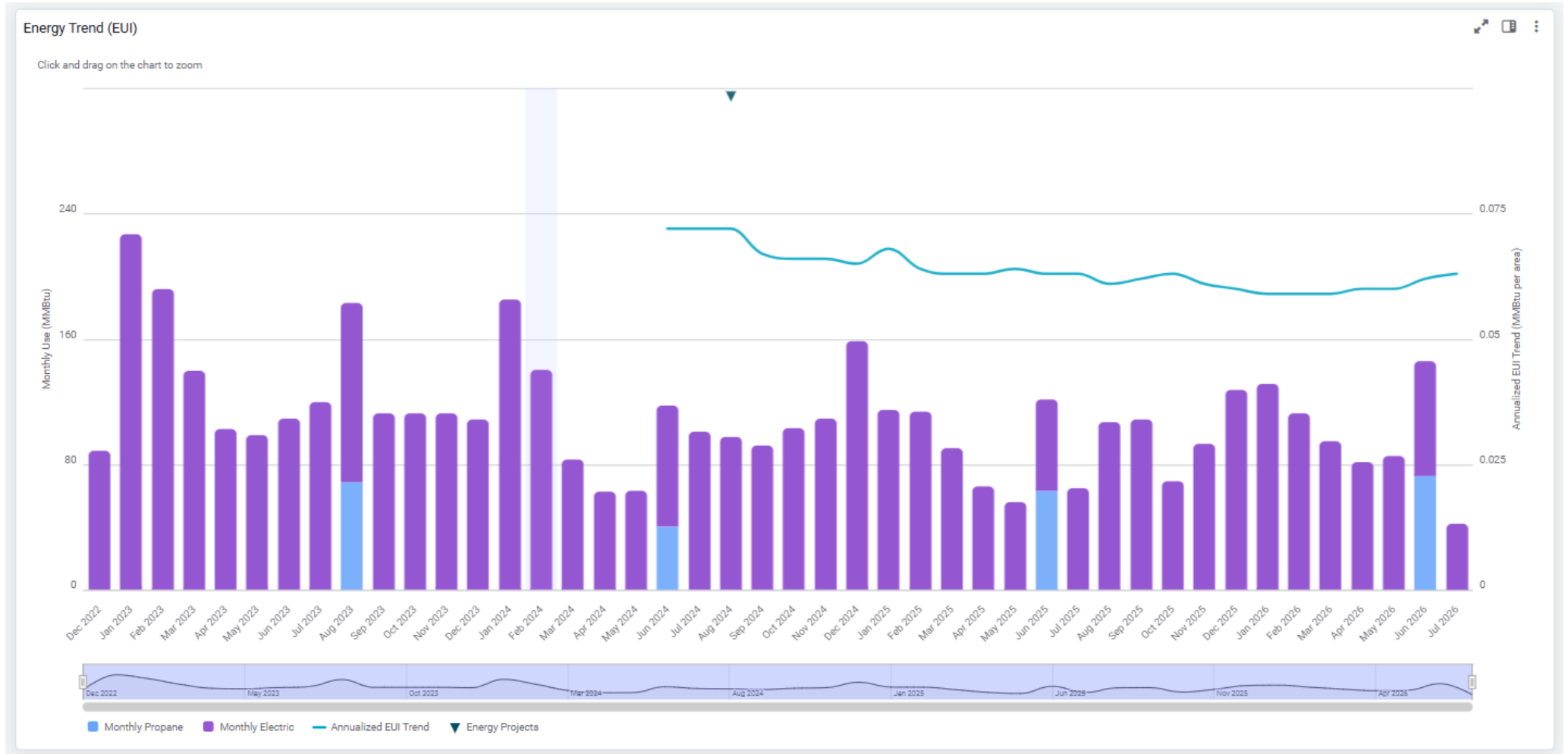
Choo:

Choose

Description

1. Settings > 2. Custom Fields

Energy project tracking shows up on EUI graph





[Actions](#)

 Reports

[Billing Period Data](#) [Calendarized Data](#) [Normalized Data](#) [Interval Data](#) [Budgets](#) [Savings](#) [ENERGY STAR](#) [Energy Projects](#) [Properties](#) [Flags](#)

Portfolio Manager property	Gross Floor Area	Property Use Type	Submission Type
Discovery Drive	19,332 ft²	Office	Manual

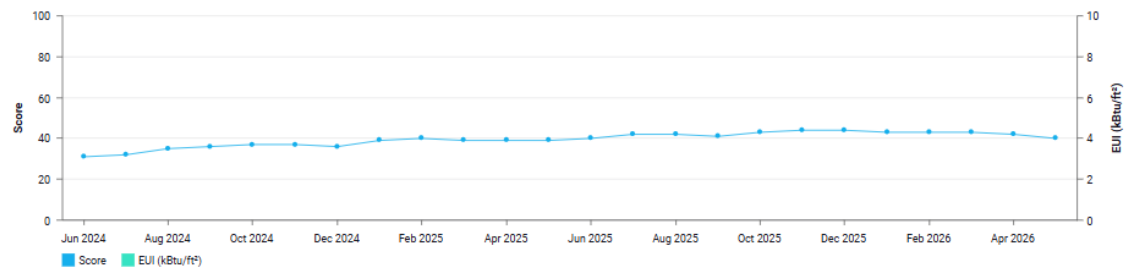
More Actions ▾

Submit

ENERGY STAR Scores and Metrics

40

Latest ENERGY STAR Score



Month	ENERGY STAR Score	ENERGY STAR EUI (kBtu/ft²)	12-Month Site Energy Use (kBtu)	National Median Score	National Median EUI (kBtu/ft²)	Diff. from National Median EUI(%)
May 2026	40			50	55.1	13.0
Apr 2026	42			50	55.2	9.6
Mar 2026	43			50	55.2	8.6
Feb 2026	43			50	54.9	8.9
Jan 2026	43			50	54.9	9.1
Dec 2025	44			50	55.1	6.9
Nov 2025	44			50	55.1	7.9
Oct 2025	43			50	54.9	9.1

All displayed values are from ENERGY STAR.

Other savings

management activities.

Add Other Savings

Category

* Choose or add 

Amount

*

Frequency

☒ once ☐ continuous ☐ recurring

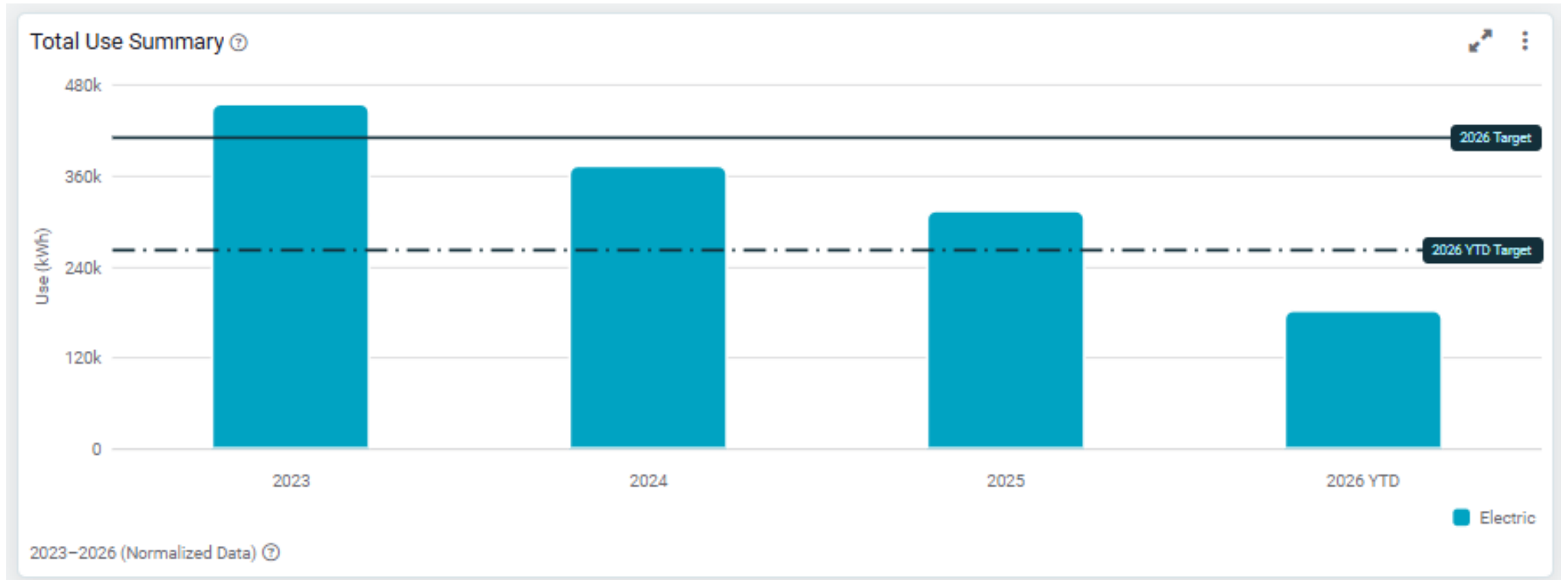
Savings date

* Month YYYY 

Description

*

Target comparisons



EUI goal options

New EUI Goals

Cancel

Save

Discovery Drive [360]

Area

19,332 ft²

Constructed

2020

Primary Use

General Office

Type

Building

Base Year ?

2024

Annual Energy Use Intensity ?

0.1 MMBtu/ft²-year

Use: 1314.2 MMBtu Area: 19332 ft²

Target Year

2026

Energy Use Intensity Goal

5 % reduction of base year

Goal EUI: 0.1 MMBtu/ft²-year

×

Target Year

2027

Energy Use Intensity Goal

10 % reduction of base year

Goal EUI: 0.1 MMBtu/ft²-year

×

Target Year

2030

Energy Use Intensity Goal

20 % reduction of base year

Goal EUI: 0.1 MMBtu/ft²-year

×

+ Add goal

Common mistakes to avoid

1. Failing to define a clear project objectives
2. Incorrectly estimating project costs
3. Overestimating anticipated benefits
4. Neglecting to factor in risks and uncertainties
5. Inadequate consideration of intangible benefits
6. Misallocating resources and prioritizing projects
7. Failing to track and measure ROI over time

Real power comes when you stop looking at projects one at a time

1. • Where are we investing?
2. • Which measures are producing the best returns?
3. • Which facilities need the most attention?
4. • Which projects have been identified but not funded?
5. • What projects can be bundled?
6. • Which completed projects are actually performing?
7. • Where should the next capital dollar go?

Communicating ROI

Know your audience

Energy Engineers (Use data!)

- “Reduced kWh by X%, cut peak demand by Y kW, and extended equipment life by Z years.”
- “Here’s the before/after energy signature.”
- “Here’s how the BAS tuning cut short cycling.”
- Include tech specs: coefficient of performance (COP), motor efficiencies, and control strategies

Facility Managers (Avoids unplanned outages or extends life cycles)

- “Project saves 300 hours of PM labor per year and reduces hot/cold calls by 40%.”
- “Frees up your techs to tackle backlog instead of chasing nuisance alarms.”

Communicating ROI

Finance Leaders (Capital efficiency and budget predictability)

- 3.2-year payback, 22% IRR, and cashflow positive in year one
- \$800k in incentives secured, with minimal operational disruption
- Bundle projects to shorten paybacks
- Show how you've derisked implementation of project

Sustainability Officers (Give them ammo for their next Board report)

- Reduces Scope 1 emissions by 2.3% and Scope 2 by 4.7%
- Improves our CDP score by X and keeps us eligible for Y partner program

**You need one core ROI story with four tailored versions.
The math doesn't change but the framing does!**