CATALYST

Welcome to EnergyCAP Catalyst!

Welcome to EnergyCAP Catalyst!

QR code on badges link to agenda

Lunch in adjacent room

Second presentation room upstairs: Marlborough Suite

Zoom sessions available to follow along (links in today's email)

Tomorrow begins at 8:00am

Have fun!

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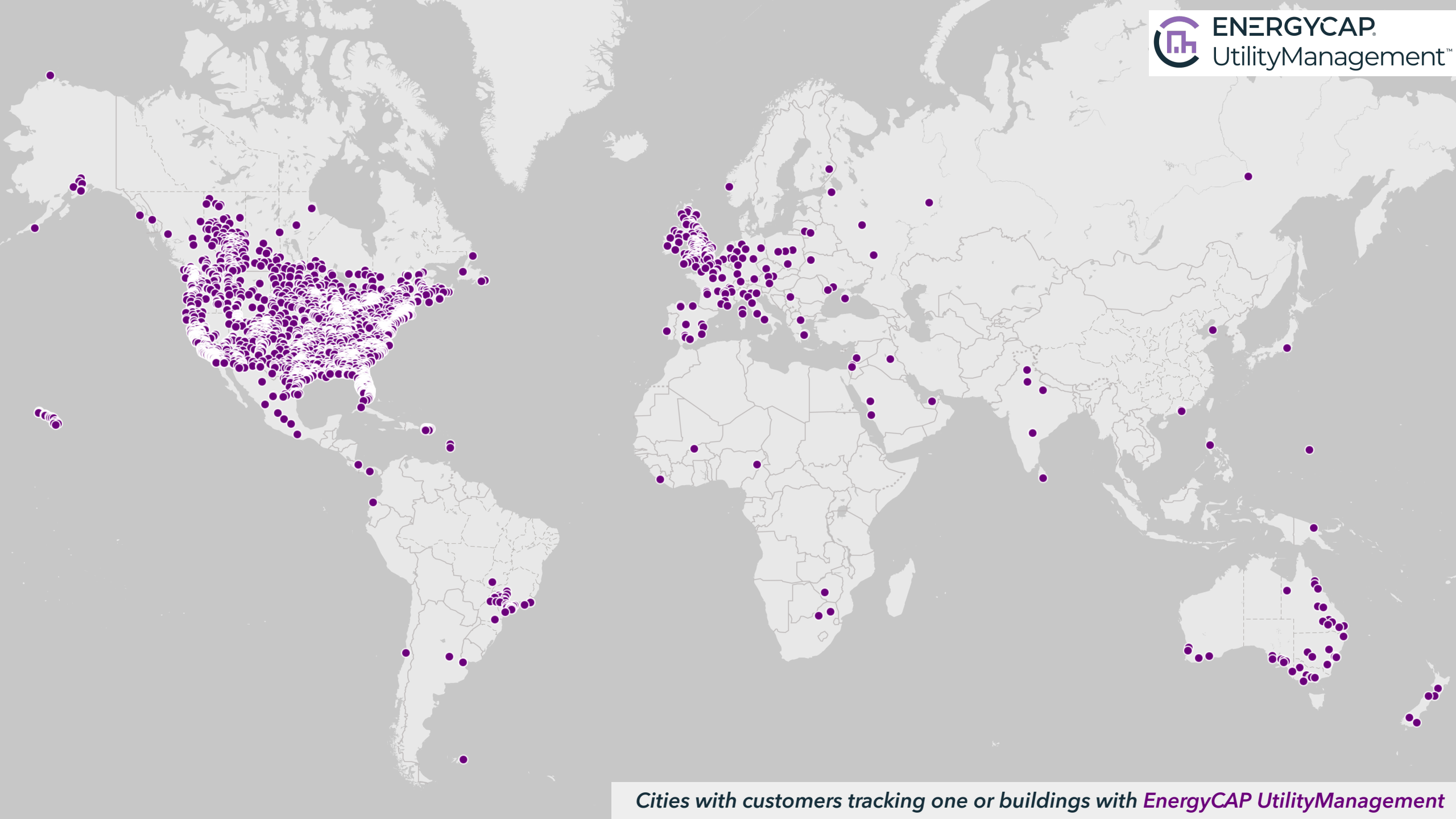
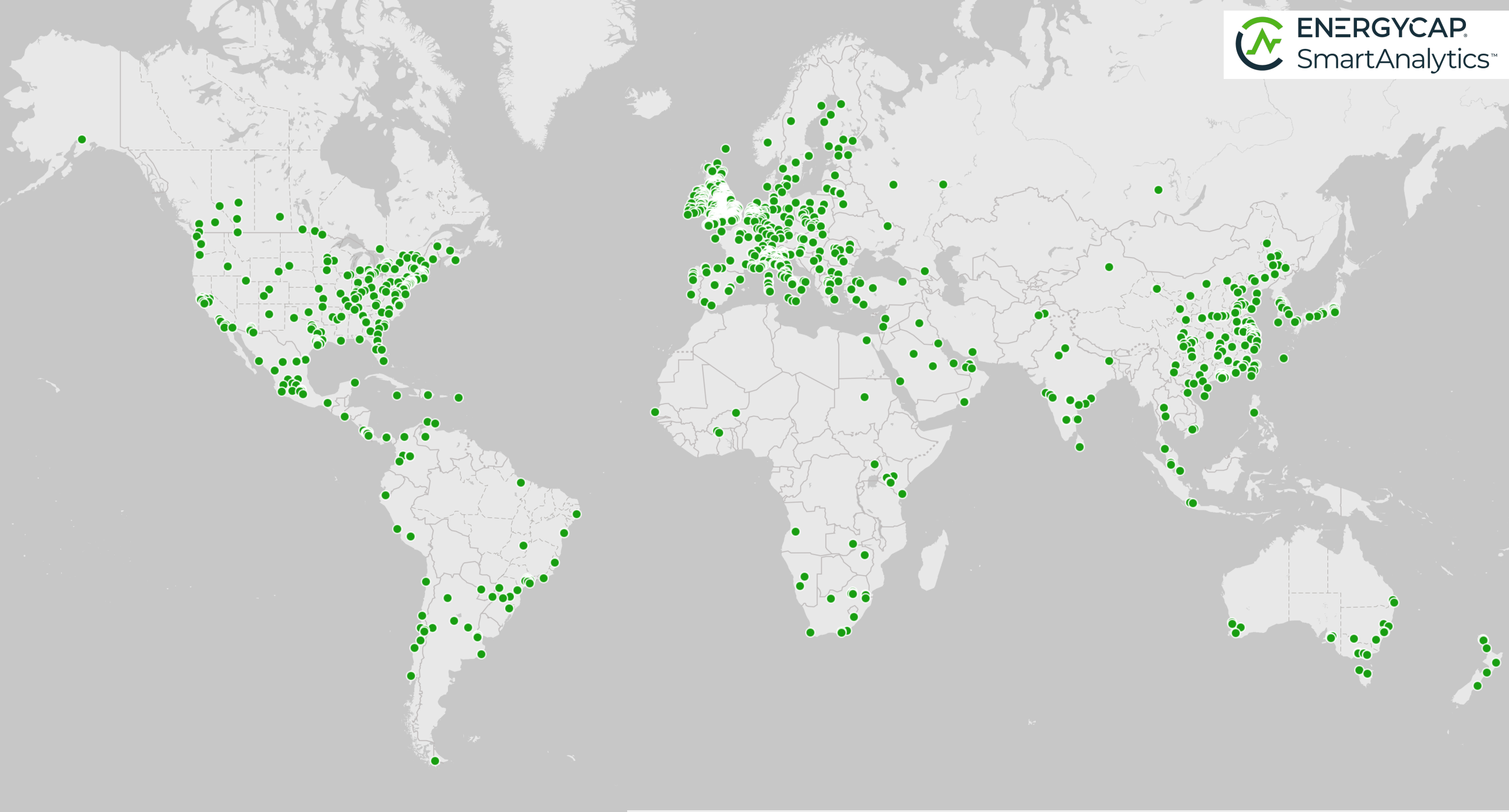
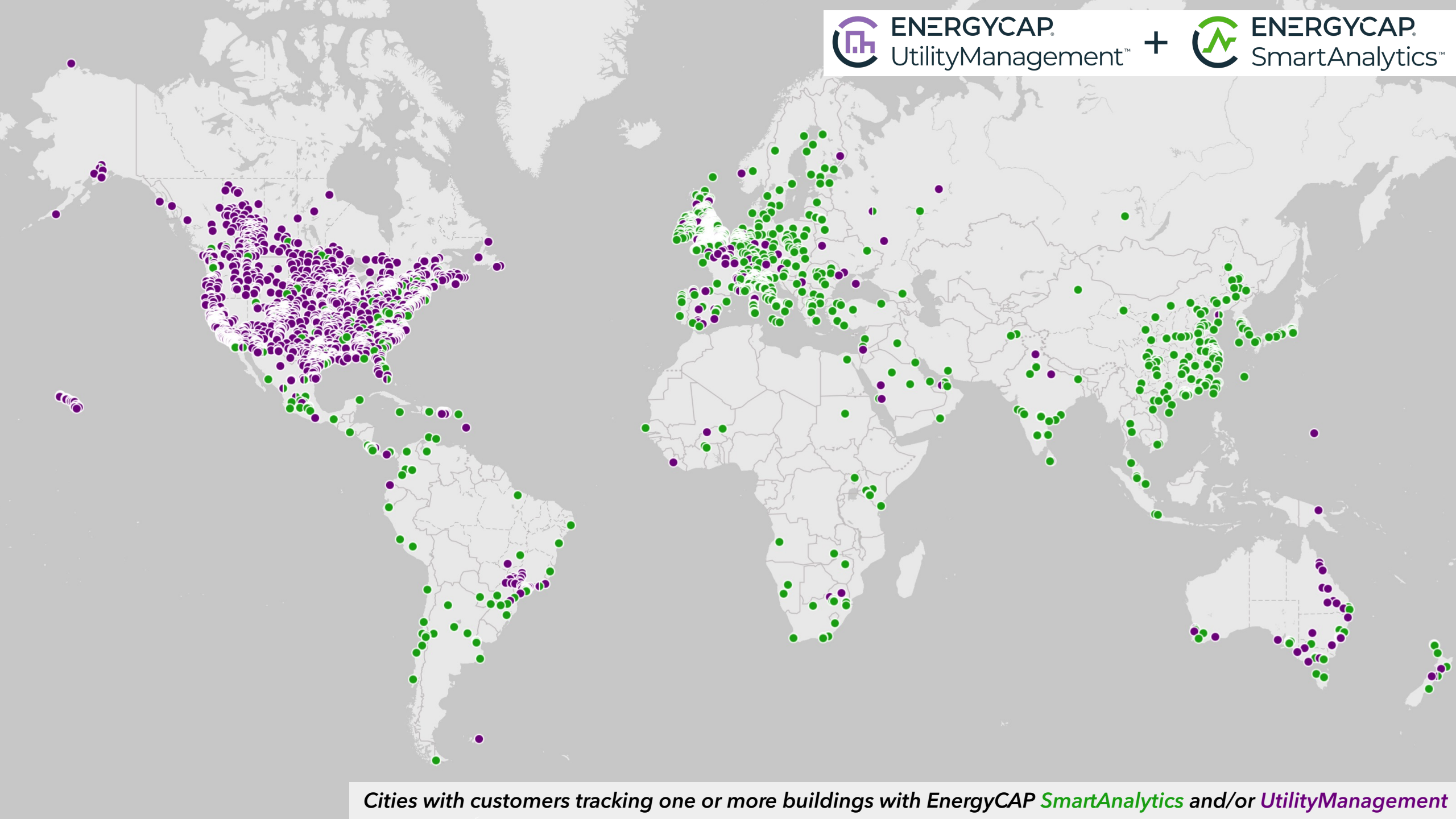


Cities with customers tracking one or buildings with EnergyCAP UtilityManagement

ENERGYCAP SmartAnalytics™



Cities with customers tracking one or more buildings with EnergyCAP SmartAnalytics


ENERGYCAP UtilityManagement™
+
ENERGYCAP SmartAnalytics™
Cities with customers tracking one or more buildings with EnergyCAP SmartAnalytics and/or UtilityManagement

CATALYST

What's new with EnergyCAP?

David Ulmer
Chief Product & Technology Officer
EnergyCAP

A little about me...

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“Hello” from the Ulmer Crew across the pond!

Agenda

- The EnergyCAP Story
- EnergyCAP's Energy & Sustainability ERP
- Continued SmartAnalytics Innovation
- Going Beyond SmartAnalytics
- EnergyCAP Platform & Services
- Making the Most of Your Catalyst Experience

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The EnergyCAP Story

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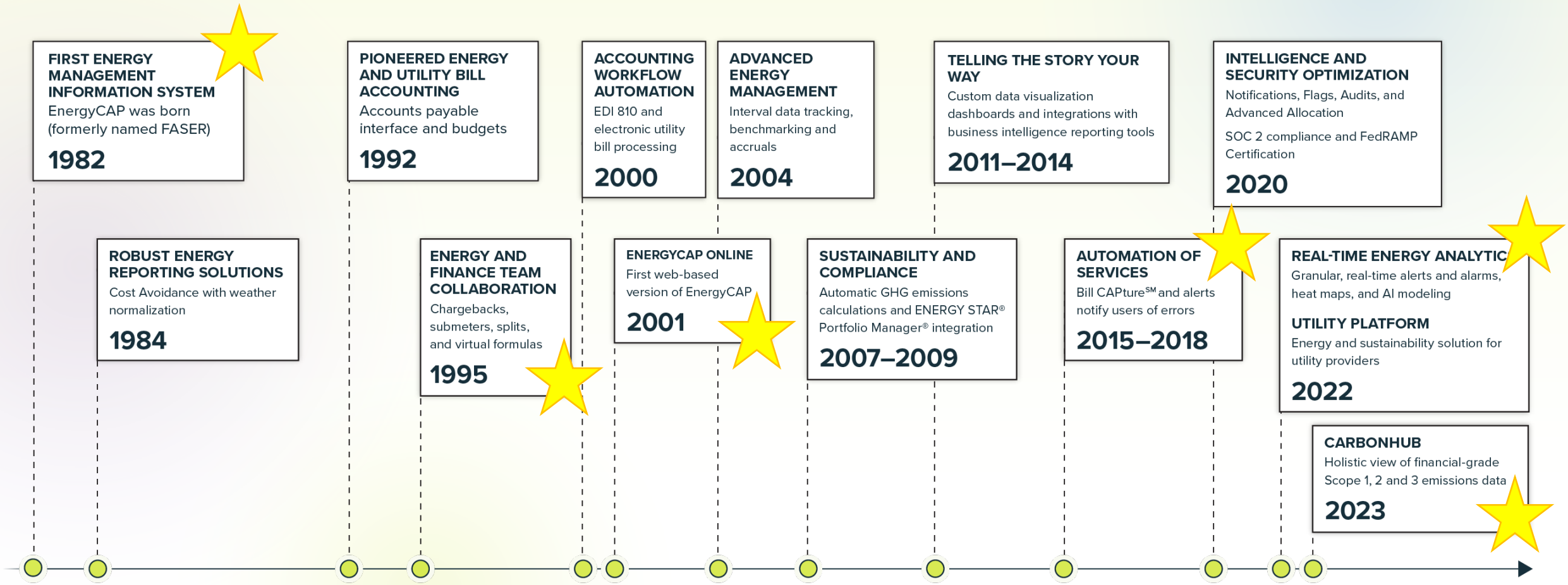
Steve Heinz – founder of EnergyCAP

Over 40+ years of innovation and leadership



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Diverse and dedicated client base

Government

City

DENVER THE MILE HIGH CITY · The City of SAN DIEGO · City of Philadelphia · Los Angeles · KANSAS CITY MISSOURI · Minneapolis City of Lakes · The City and County of San Francisco · City of Baltimore · Phoenix

State/Providence

Colorado · Maryland · Connecticut · Tennessee · Washington DC · Alberta · Manitoba

Federal

GSA · Pacific Northwest National Laboratory · United States Marine Corps · Department of the Navy · Army National Guard · Smithsonian

County/Federal

County of Orange California · County of Santa Barbara California · County of Riverside · Orange County Government Florida · Miami-Dade County · Fairfax County Virginia

Education

Public School Districts

Fort Worth Independent School District · Fairfax County Public Schools Engage • Inspire • Thrive · Detroit Public Schools Community District · Aurora Public Schools · Central Bucks School District · Montgomery County Public Schools · Loudoun County Public Schools Established in 1870 · Sun Prairie Area School District · Matanuska-Susitna Borough School District · Miami-Dade County Public Schools

Public Higher Education/University Systems

PennState · The University of Alabama · University of California · University of Kansas · University of Central Florida · Texas A&M · University of Nebraska Lincoln · University of Colorado Boulder · Oklahoma State University · SUNY The State University of New York · Georgia Tech · University of Tennessee

Private Education

Harvard University · Yale · Syracuse University · Carnegie Mellon University · Columbia University

Utility Companies

PSE Puget Sound Energy · Tampa Bay Water Supplying Water To The Region · Denver Water · South Jersey Gas · Elizabethtown Gas

Commercial

General commercial and retail

Bank of Hawaii · UniFirst · GEO The GEO Group, Inc. · Kroger · Organic Valley · Barnes & Noble · Barilla The Italian Food Company. Since 1877. · Northrop Grumman · Vanguard

Ind/manufacturing

Pella · abbvie · Pioneer Natural Resources · niagara Bottling, LLC · WestRock

Energy services/consultants

TECO Energy An Emera Company · BITHGROUP technologies · PriorityPower · PROSTAR Energy Solutions

Healthcare

The University of Texas MD Anderson Cancer Center Making Cancer History · Mayo Clinic · UCI Health · Rochester Regional Health · ChristianaCare · AllinaHealth · Baptist Health South Florida

Transportation

Regional Transportation Authority · John Wayne Airport Orange County · Southeastern Freight Lines · Santa Clara Valley Transportation Authority · Metro

Property Management/Real estate

Irvine Company · Equity Residential · Housing Authority of Baltimore City · CMHA Cuyahoga Metropolitan Housing Authority · Shaner · Drury Hotels

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EnergyCAP Catalyst Conferences

The EnergyCAP Team

EnergyCAP's Energy & Sustainability ERP

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Energy and Sustainability ERP // The single source of truth

Get instant access to validated, actionable data you can trust to better manage resource consumption, reduce your carbon footprint, reach net-zero, and drive massive savings.

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Energy and Sustainability ERP // The single source of truth

Get instant access to validated, actionable data you can trust to better manage resource consumption, reduce your carbon footprint, reach net-zero, and drive massive savings.

Wattics
An EnergyCAP Solution

Real-time energy and sustainability analytics

Dive deep. Respond quickly.

Dive deep into real-time performance of assets, devices, and sensors. Make quick, data-driven decisions for high-performance, net-zero buildings.

Customer Data Type:
Time-Series/Interval Energy

Persona:
Energy/Facilities

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ENERGYCAP UtilityManagement™

Portfolio-level energy and sustainability reporting

Manage and see it all.

Get accurate and reliable energy and utility data across your entire portfolio and streamline energy and accounting workflows.

Customer Data Type:
Utilities/Bill/Resources

Persona:
Finance/Energy

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ENERGYCAP CarbonHub™

Financial-grade greenhouse gas accounting

Target and track emissions.

An advanced, holistic view of financial-grade emissions data across your business with automatically applied factors to meet your ESG reporting needs.

Customer Data Type:
GHG activities

Persona:
Sustainability

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CAPture Services: Bill CAPture, Bill Processing/Managed Services

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Continued SmartAnalytics Innovation

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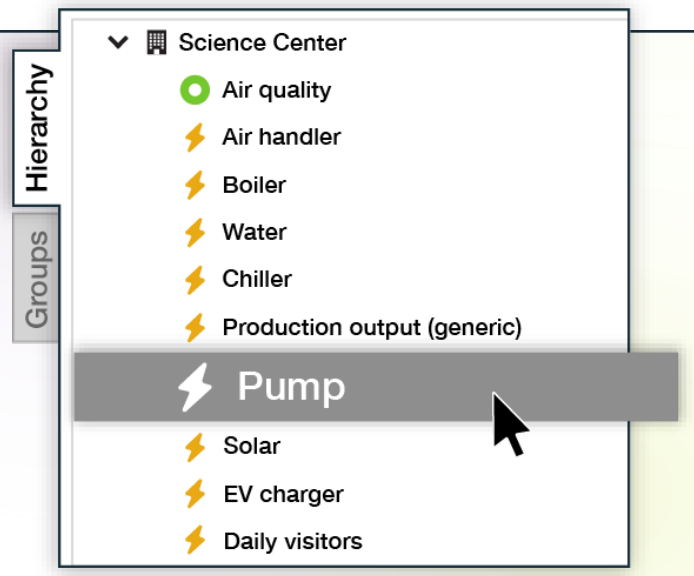
EnergyCAP SmartAnalytics // Real-time energy and sustainability analytics

ENERGYCAP® SmartAnalytics™

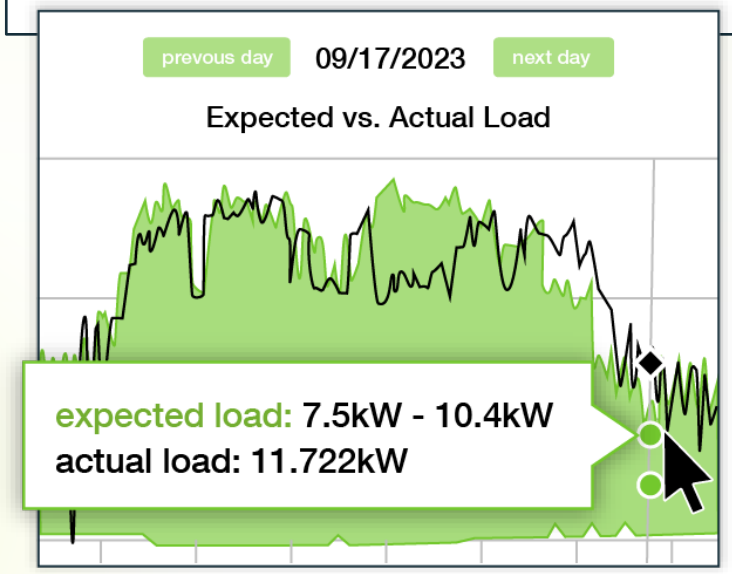
Capture

Capture real-time data from virtually any source and type of device.



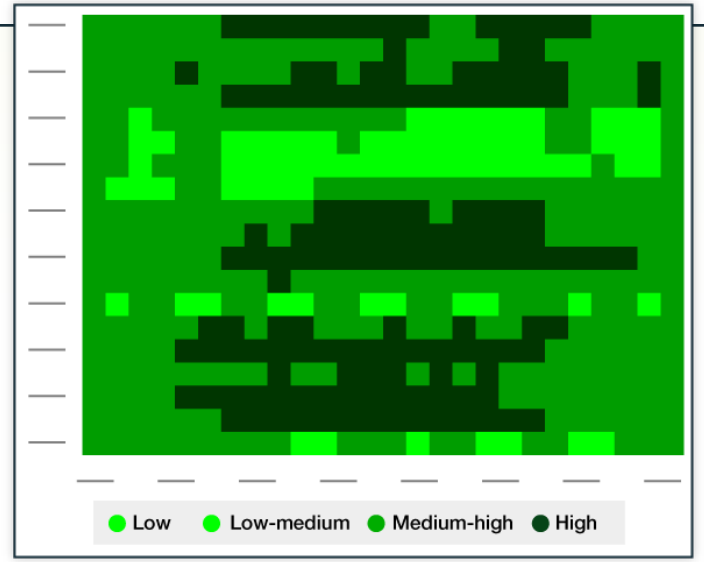
Monitor

Monitor data quality, detect outliers, and receive alerts and alarms.



Analyze

Access robust analysis and reporting functionality.



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EnergyCAP SmartAnalytics // Continue to expand connectivity options

Data Integration Formats

- API
- Data systems
- Files
- Gateways
- Meters
- Sensors
- Solar and PV
- Third-Party Integrations

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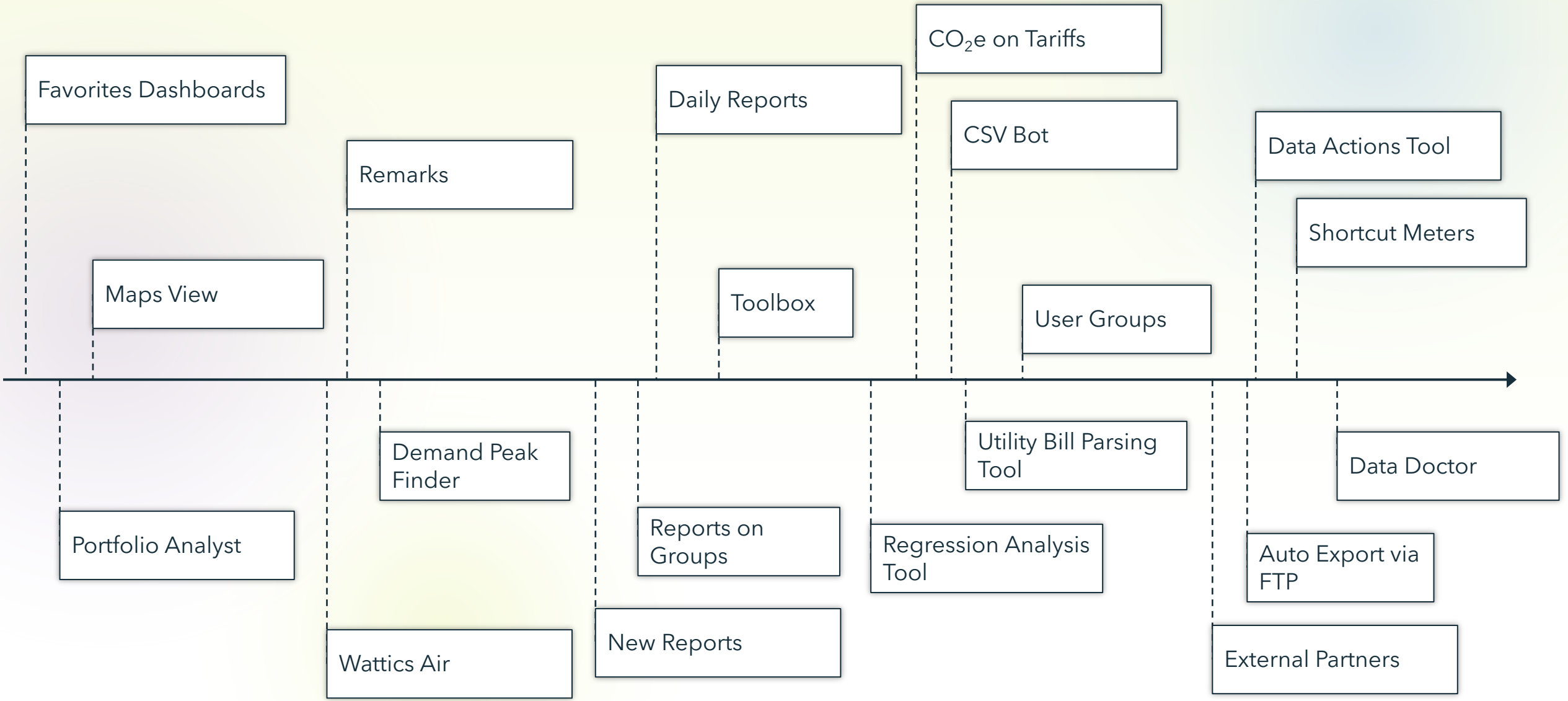
SmartAnalytics continues to evolve and improve



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Continuing to advance SmartAnalytics

- Improved bulk data setup/management
- Historic data corrections
- Improved data import performance – 8x faster
- Additional data integrations
- Single Sign-On (SSO)
- **Significant investments in infrastructure and performance in 2024**

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Feature Highlight: Data Doctor

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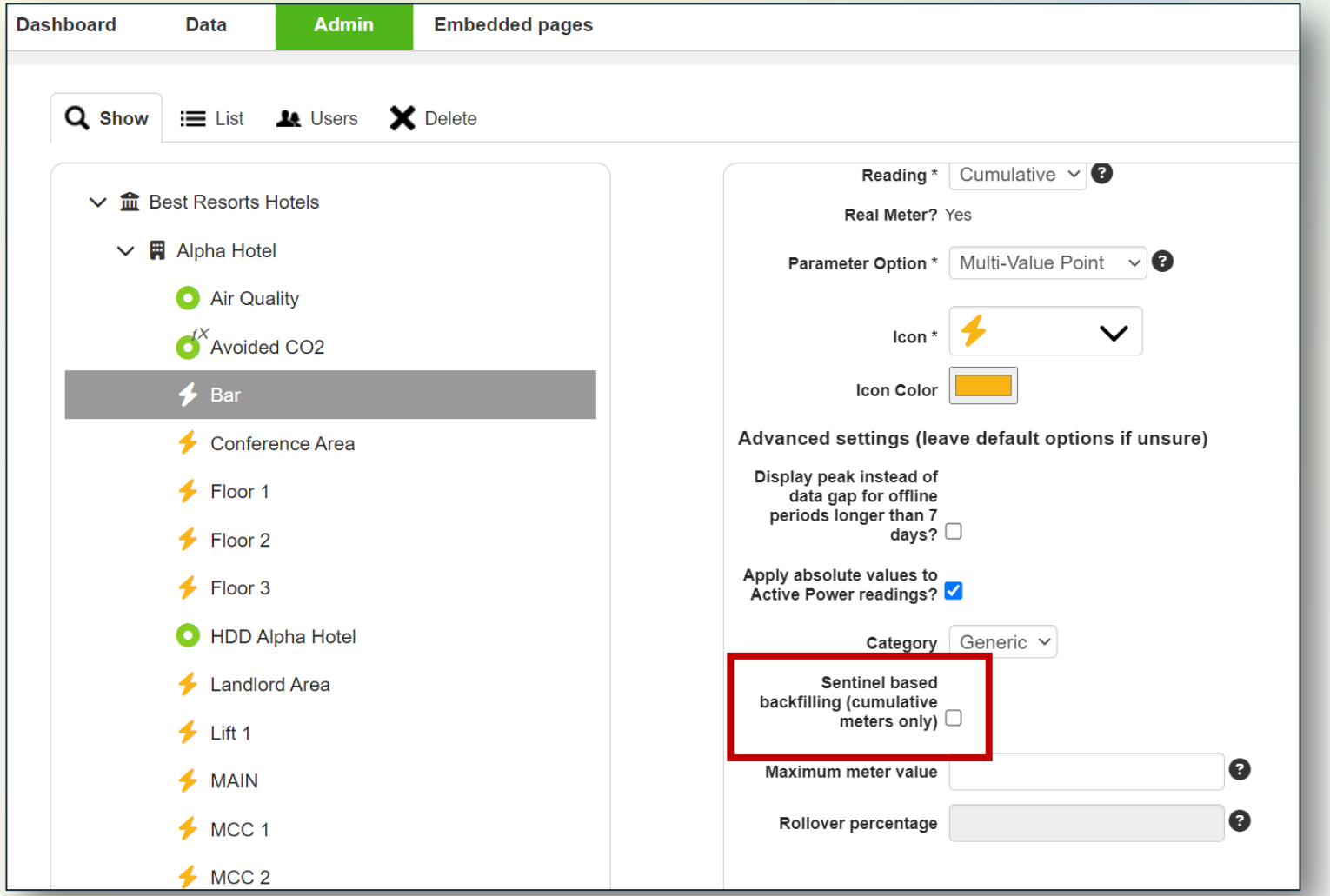
Data Doctor // Intelligent missing data backfill

- Select individual data points to use Sentinel model to backfill missing data
- Backfill gaps of up to four weeks
- Uses historic performance to estimate load shape



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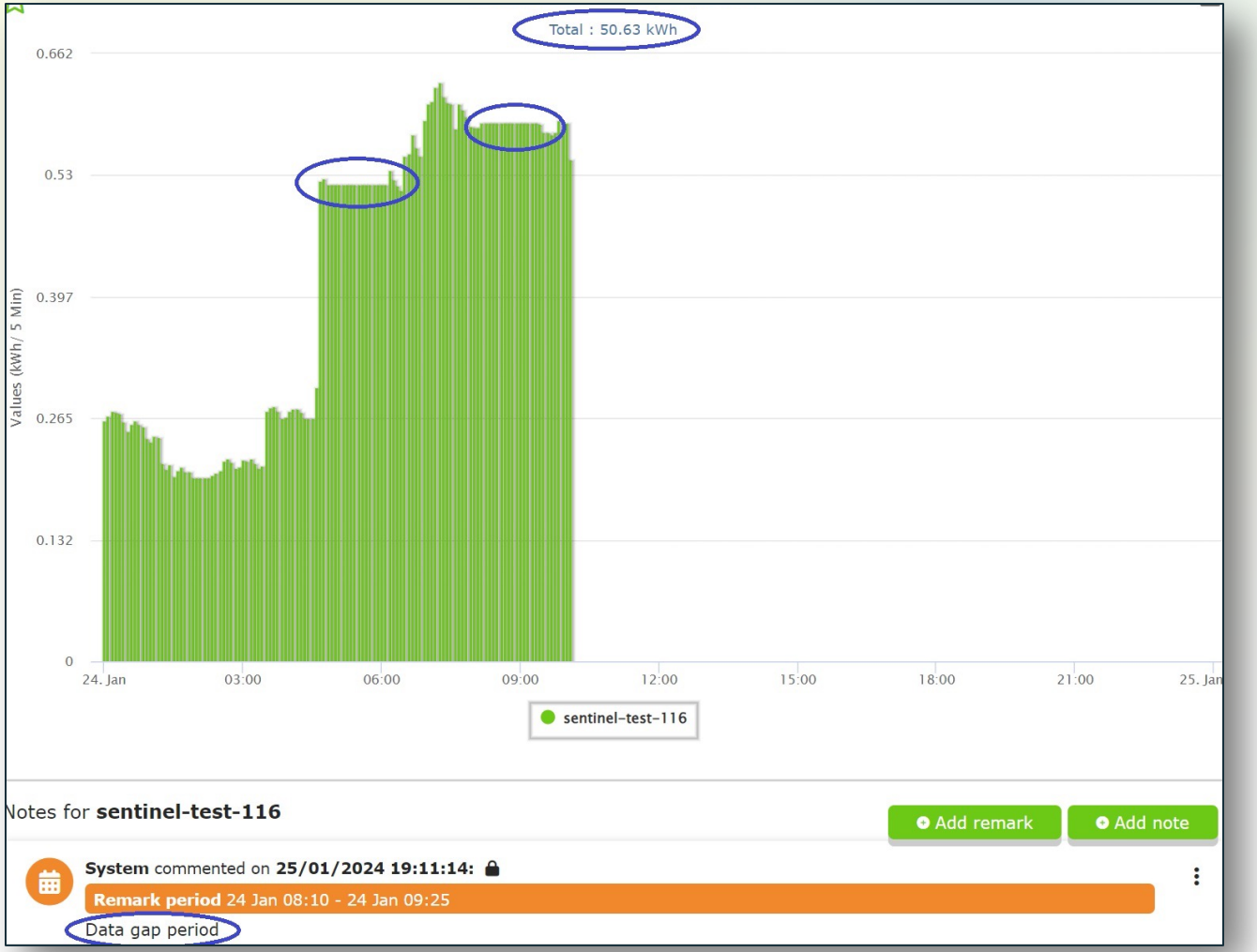
Filling data gaps without Data Doctor

- Uses average for all time periods between offline/online
- Marks data gaps for administrators



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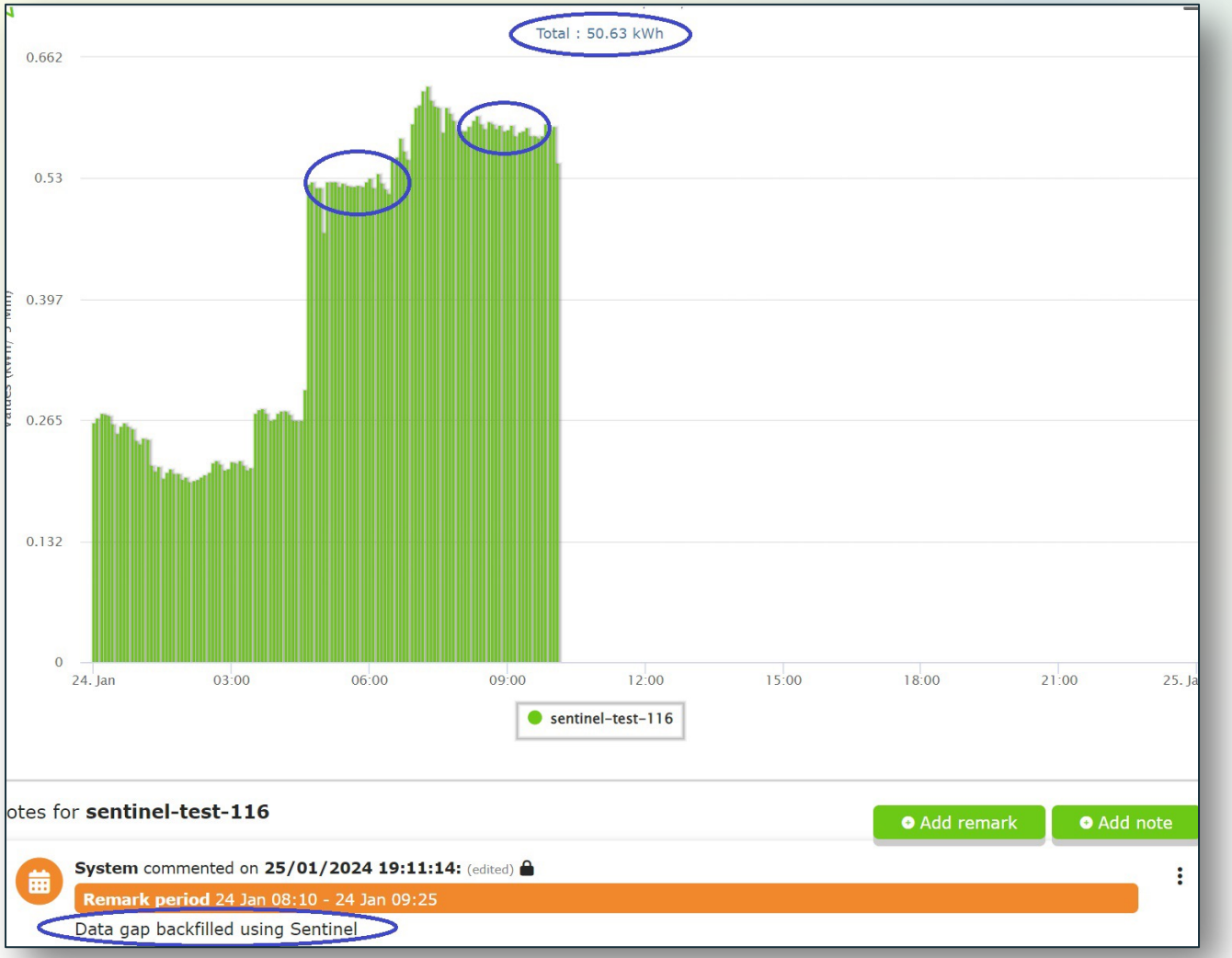
Using Data Doctor to fill gaps

- Triggered by data gaps
- Occurs as a background process
- Replaces “flat” values with values that follow Sentinel Model



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EnergyCAP SmartAnalytics Catalyst Sessions

Hardware Systems and Integrations – Wednesday AM

M&V: Using Option B vs. Option C – Wednesday PM

Dealing with Data Quality Issues – Wednesday PM

EpiSensor Case Study – Wednesday PM

Accuenergy Presentation – Thursday AM

Your Data Your Way – Thursday AM

Chargebacks & Tenant Billing – Thursday AM

I Didn't Know It Could Do That! – Thursday AM

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Going Beyond SmartAnalytics

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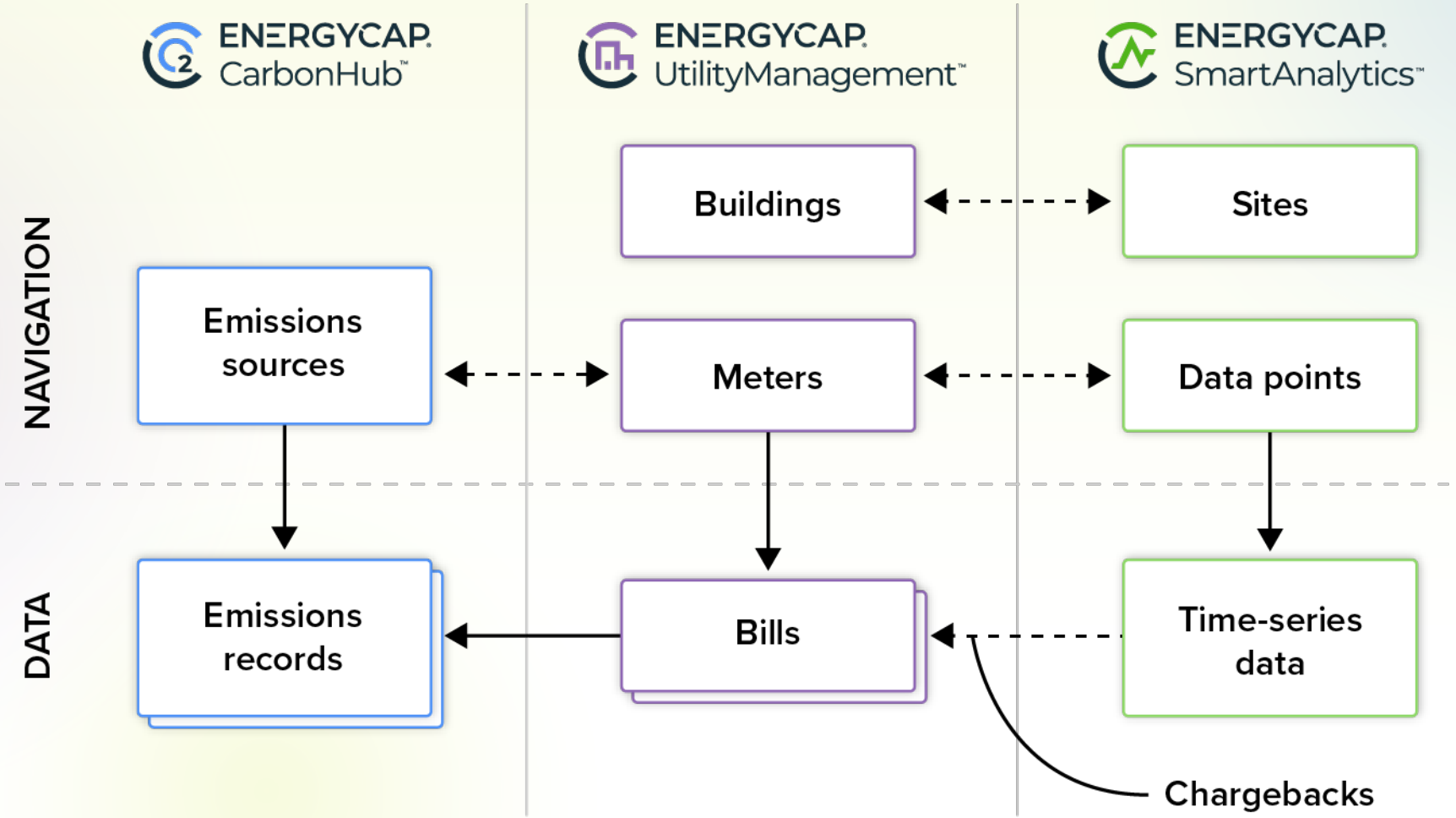
Energy and Sustainability ERP // Even more value together



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EnergyCAP UtilityManagement™ (EUM) overview

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Capture Utility Bill Data

Gain timely access to accurate and reliable energy and sustainability information from monthly utility bills for financial grade energy and sustainability reporting.

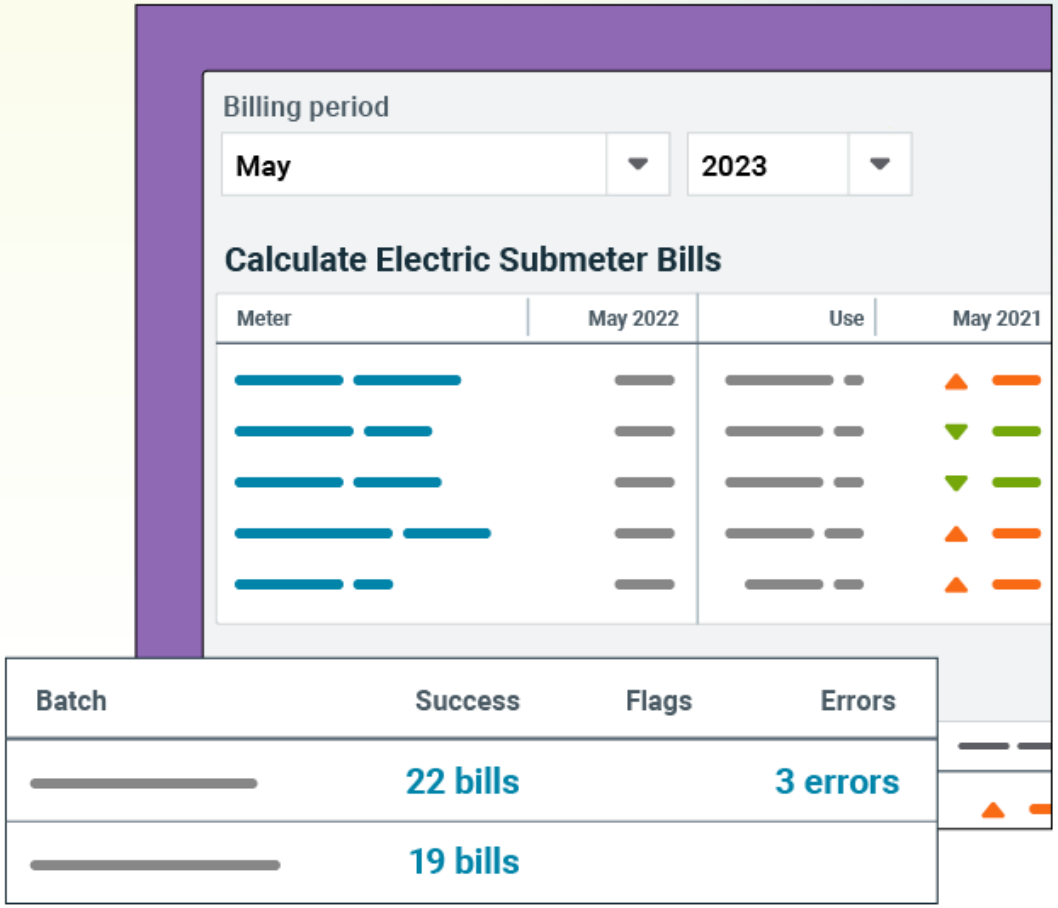
- **Utility bill entry and import**
- **Capture, map, and import** via **Bill CAPture℠**
- API integrations
- Data formats: paper, PDF, XLS, CSV, TXT, XML, EDI, and more

 • © EnergyCAP, LLC

EnergyCAP UtilityManagement // Portfolio-level energy and sustainability reporting

Allocate Use and Cost

Recoup energy costs from tenants or departments by allocating costs using submeter data, formulas, and split calculations with the EnergyCAP UtilityManagement **Chargeback feature**. Target and track usage, cost, and carbon from measurable or calculated points. Get as granular as you need with the way you allocate costs and consumption.



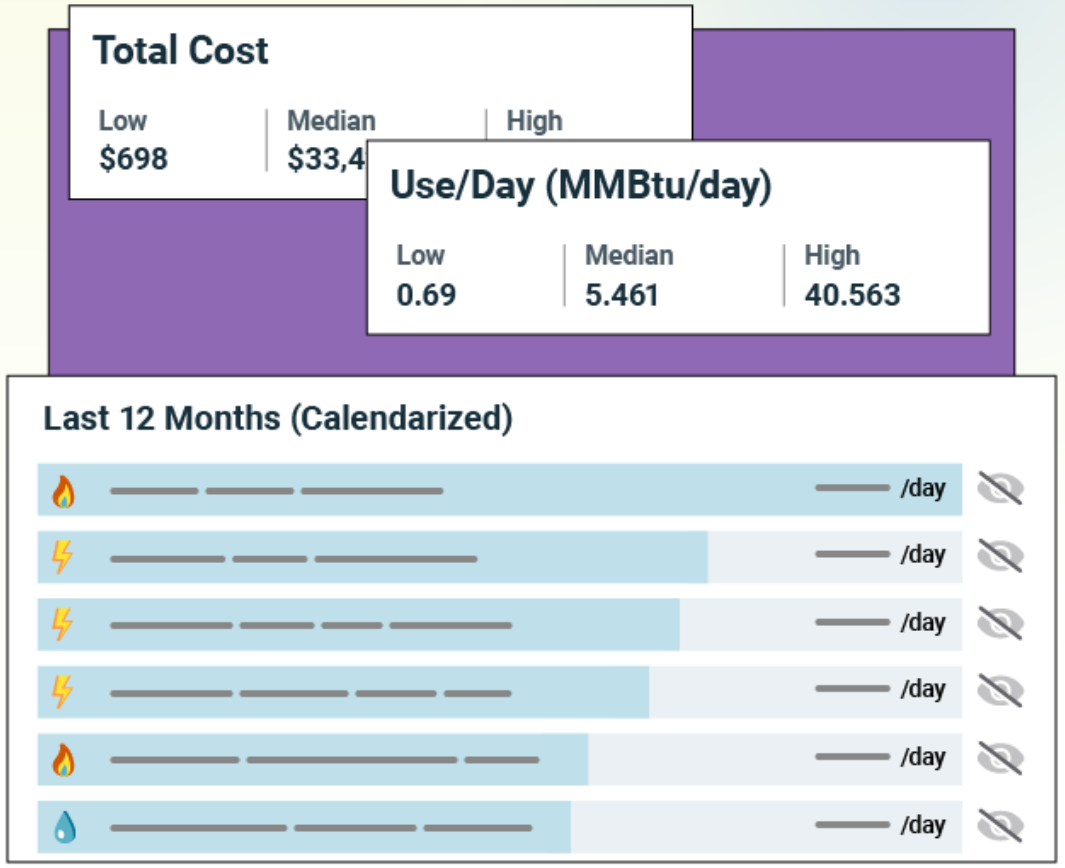
• © EnergyCAP, LLC

EnergyCAP UtilityManagement // Portfolio-level energy and sustainability reporting

Analyze Buildings & Meters

Stop searching for a needle in the haystack. EnergyCAP UtilityManagement automatically identifies outliers in your data and points to the exact place you need to look, so you can save time and focus on more meaningful projects.

- **Utility bill auditing**
- **Energy benchmarking**
- **Measurement and verification**
- **Energy use intensity (EUI)**



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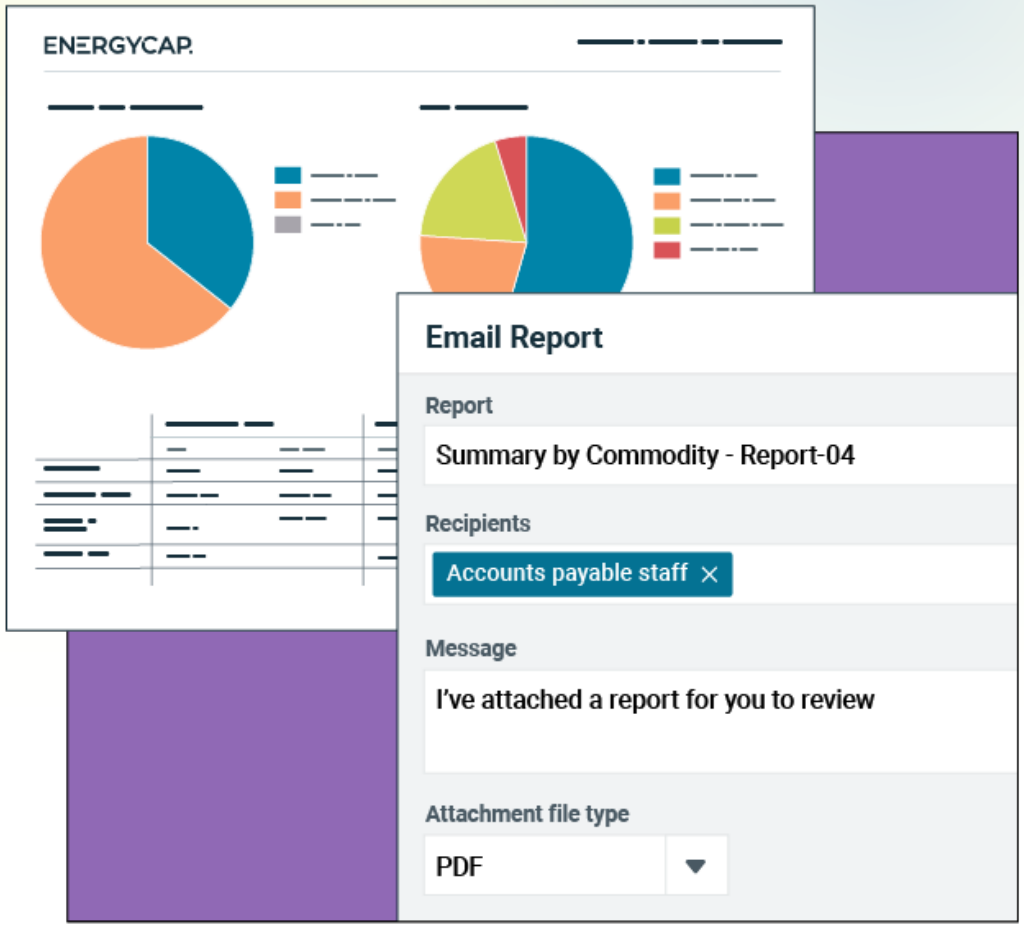
EnergyCAP UtilityManagement // Portfolio-level energy and sustainability reporting

Report Across Your Portfolio(s)

Distribute meaningful information to your team members and stakeholders in a streamlined and automated way. With accurate and reliable reports and dashboards, you have proof that your programs are performing like a well-oiled machine.

- Library of standard reports
- **Configurable reports and dashboards**
- **Business intelligence integration**
- **Bill accruals and forecasting**
- **Automated ENERGY STAR® submission**
- Public Dashboards



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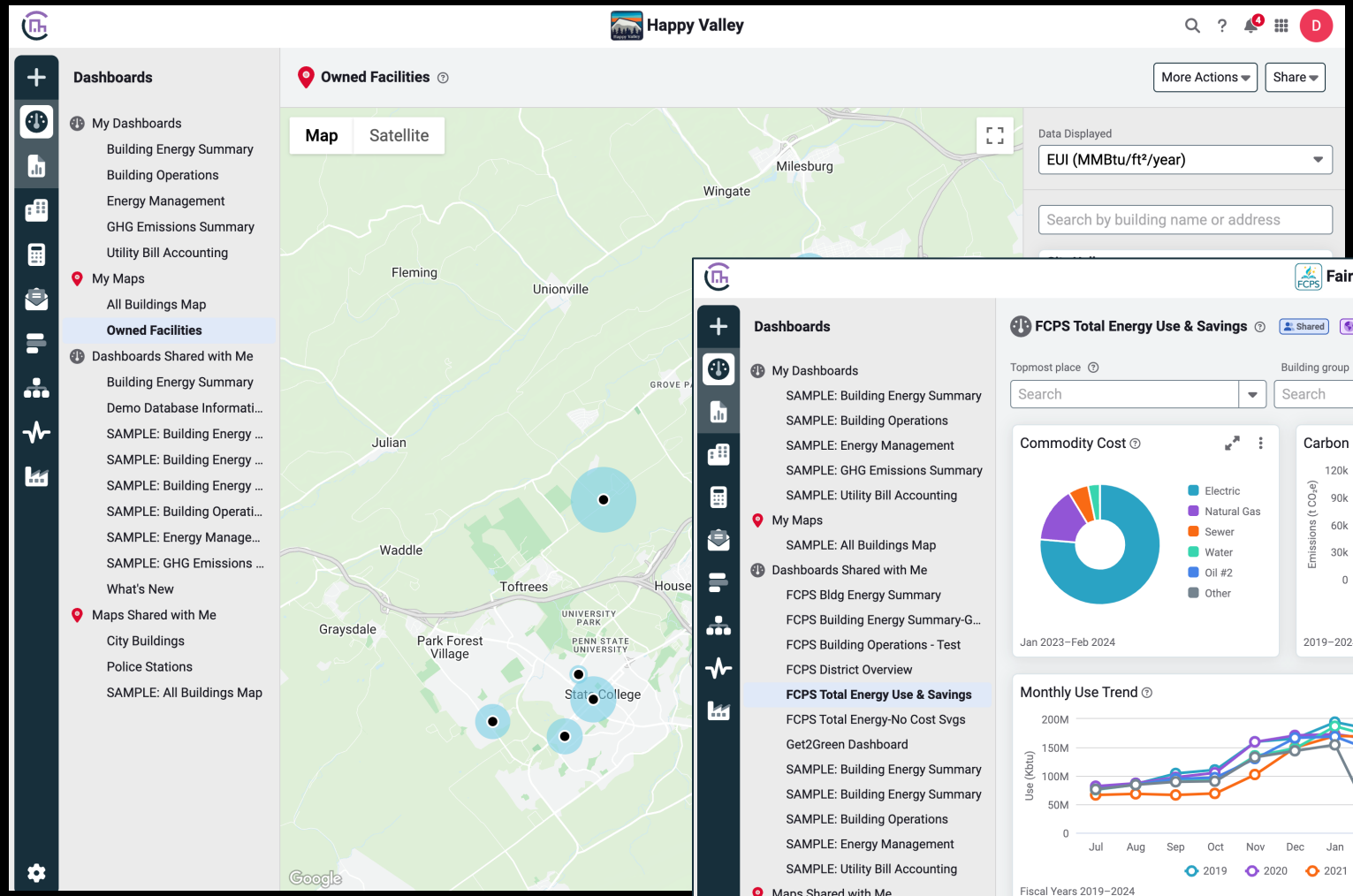
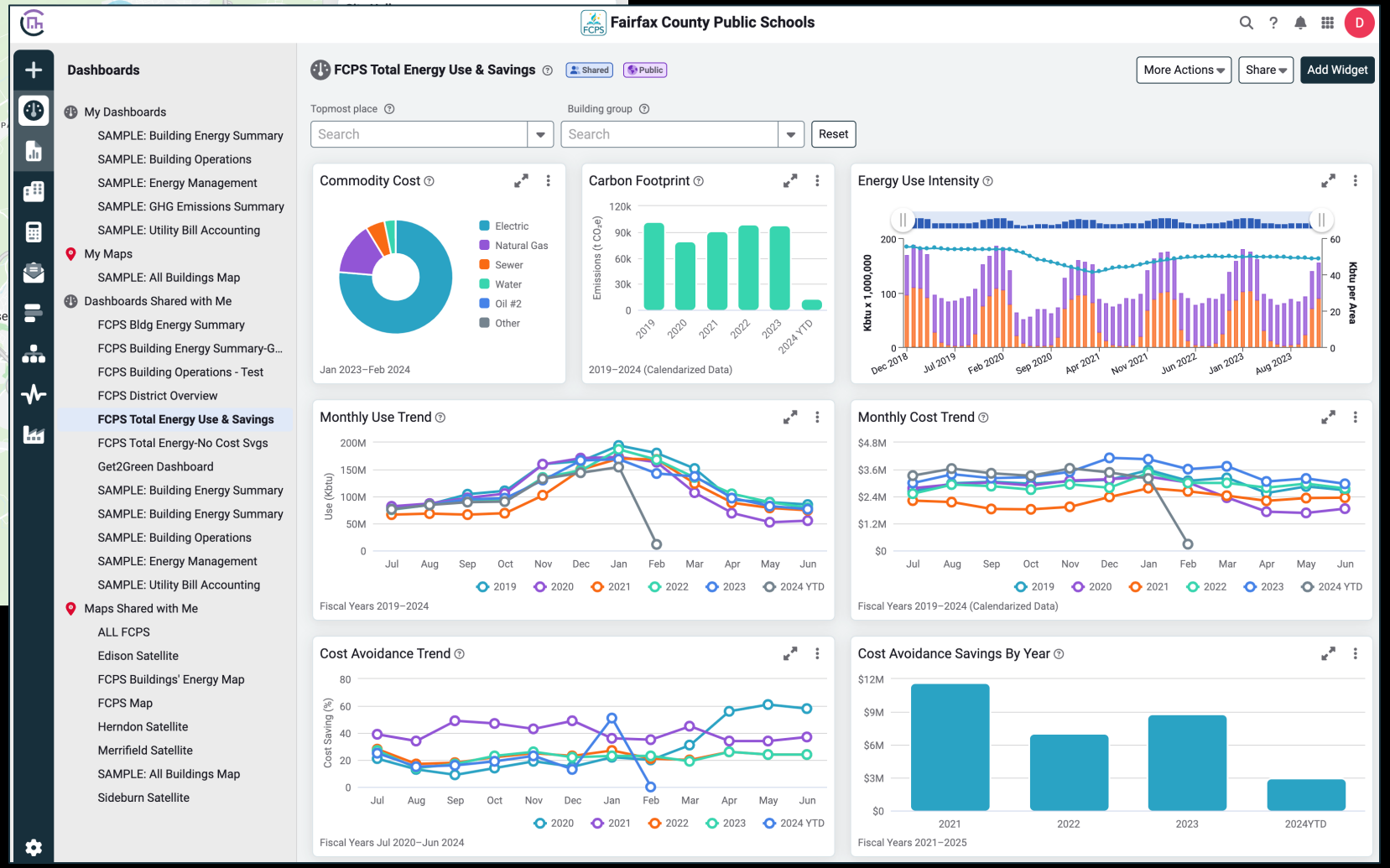
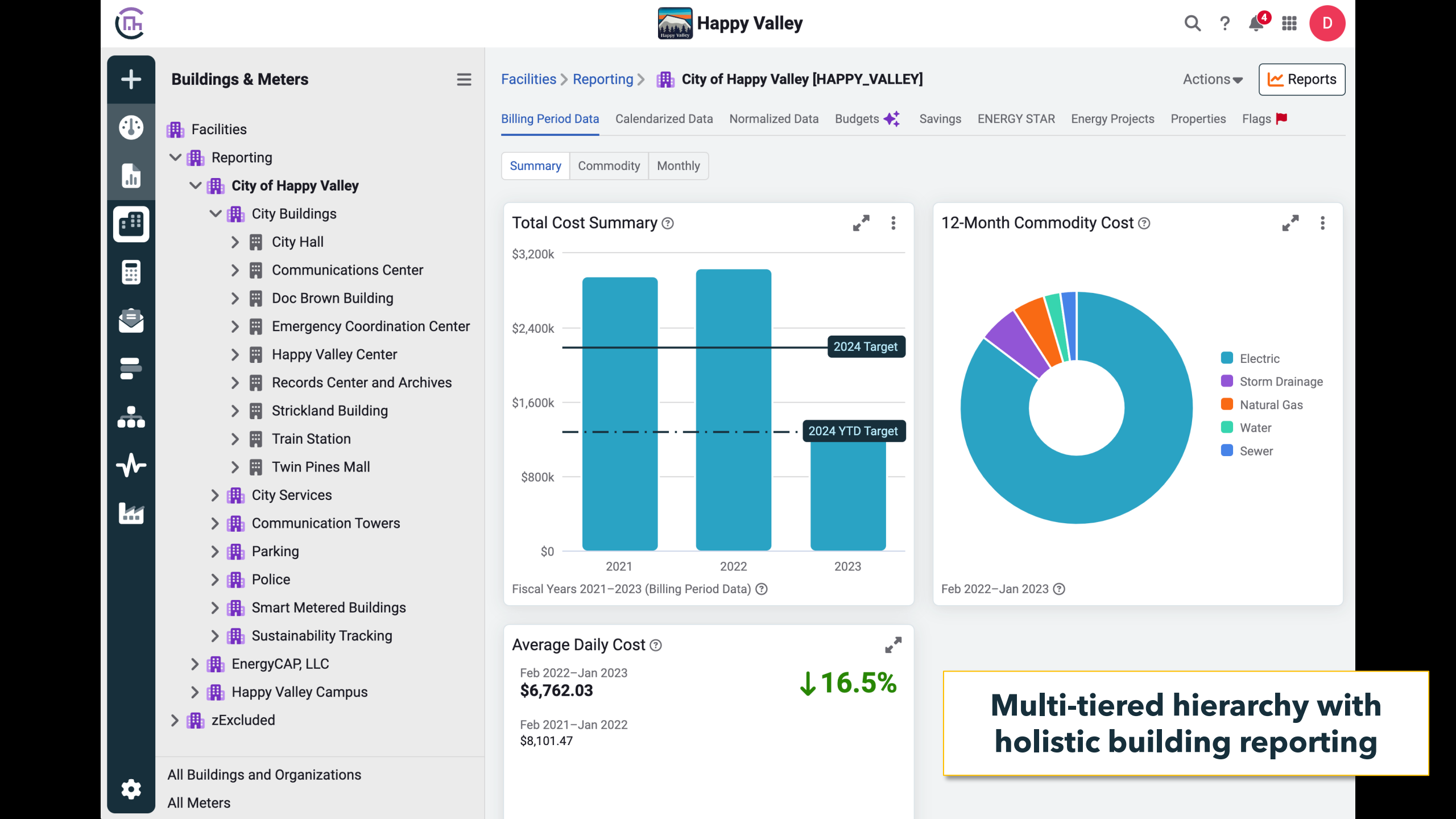
Flexible, Unlimited Dashboards






Happy Valley
Buildings & Meters
Facilities
Reporting
City of Happy Valley
City Buildings
City Hall
Communications Center
Doc Brown Building
Emergency Coordination Center
Happy Valley Center
Records Center and Archives
Strickland Building
Train Station
Twin Pines Mall
City Services
Communication Towers
Parking
Police
Smart Metered Buildings
Sustainability Tracking
EnergyCAP, LLC
Happy Valley Campus
zExcluded
All Buildings and Organizations
All Meters
Facilities > Reporting > City of Happy Valley [HAPPY_VALLEY]
Actions
Reports
Billing Period Data
Calendarized Data
Normalized Data
Budgets
Savings
ENERGY STAR
Energy Projects
Properties
Flags
Summary
Commodity
Monthly
Total Cost Summary
$3,200k
$2,400k
$1,600k
$800k
$0
2024 Target
2024 YTD Target
2021
2022
2023
Fiscal Years 2021–2023 (Billing Period Data)
12-Month Commodity Cost
Electric
Storm Drainage
Natural Gas
Water
Sewer
Feb 2022–Jan 2023
Average Daily Cost
Feb 2022–Jan 2023
$6,762.03
↓16.5%
Feb 2021–Jan 2022
$8,101.47
Multi-tiered hierarchy with holistic building reporting

Benchmark buildings/spaces/meters

Groups & Benchmarks

- Building Groups
  - Building Type
  - Energy Education Specialti...
  - Magisterial District
  - Place Primary Use Auto-Gr...
  - Pyramid
  - Region
    - Division-Wide
    - **Region 1**
    - Region 2
    - Region 3
    - Region 4
    - Region 5
  - Satellite
- Meter Groups
  - Commodity Auto-Group
  - Electric: Main Meter
  - Gas: Main Meter
  - Irrigation
  - Meter Primary Use Auto-G...
  - Trailers & Modulars
  - Utility Vendor

Building Groups > Region > Region 1

Benchmarks | Buildings

Use / Area | High to Low | Filters

Last 12 Months (Calendarized)

South Lakes High School	65.464 Kbtu/ft²
Madison High School	57.434 Kbtu/ft²
Hutchison Elementary School	54.827 Kbtu/ft²
Dogwood Elementary School	53.559 Kbtu/ft²
Oakton High School	53.526 Kbtu/ft²
Fox Mill Elementary School	49.915 Kbtu/ft²
Herndon High School	49.297 Kbtu/ft²
Oakton Elementary School	48.629 Kbtu/ft²
Spring Hill Elementary School	48.118 Kbtu/ft²
Churchill Road Elementary School	47.639 Kbtu/ft²
Colvin Run Elementary School	47.363 Kbtu/ft²
Archer Elementary School	46.569 Kbtu/ft²
Navy Elementary School	45.866 Kbtu/ft²
Cedar Lane School	45.398 Kbtu/ft²
Carson Middle School	45.239 Kbtu/ft²

Building with Partial Data

Use/Area (Kbtu/ft²)

Low	Median	High
26.241	42.729	65.464

Total Cost

Low	Median	High
$56,975	$126,392	$705,541

Comprehensive tenant billing and reporting

UtilityManagement

Edit Use for Bill Calculation

Cancel | Save

Meter	Account	Version	Workflow step	Effective
SUB: Student Housing - ELE 01	SUB: Student Housing - ELE 01	Original	Calculate Monthly Totals from Smart Meters: Calculate monthly to from smart meters	since January 2010

Use source

- (•) SmartAnalytics data point — Mains Elec
  Edit link to SmartAnalytics data point
- ( ) Channel readings — Choose
- ( ) Fixed amount — Choose
- ( ) Copy use from another meter — %
- ( ) Calcu — Sum u… Met… Subtra… Met…

Bill Split Versions

KEENE HEALTH SCIENCE - CHW01

Original — Split bills using workflow step Monthly Workflow: Create Accounting Split Bills

Recipients (Static percentage)	Share = 100%
Split - Keene Health Science - CHW01 - Fund 7100	75%
Split - Keene Health Science - CHW01 - Fund 7200	25%

1 Calculate Submeter Bills at Stores

Calculate electricity and natural gas bills for submeters at each store

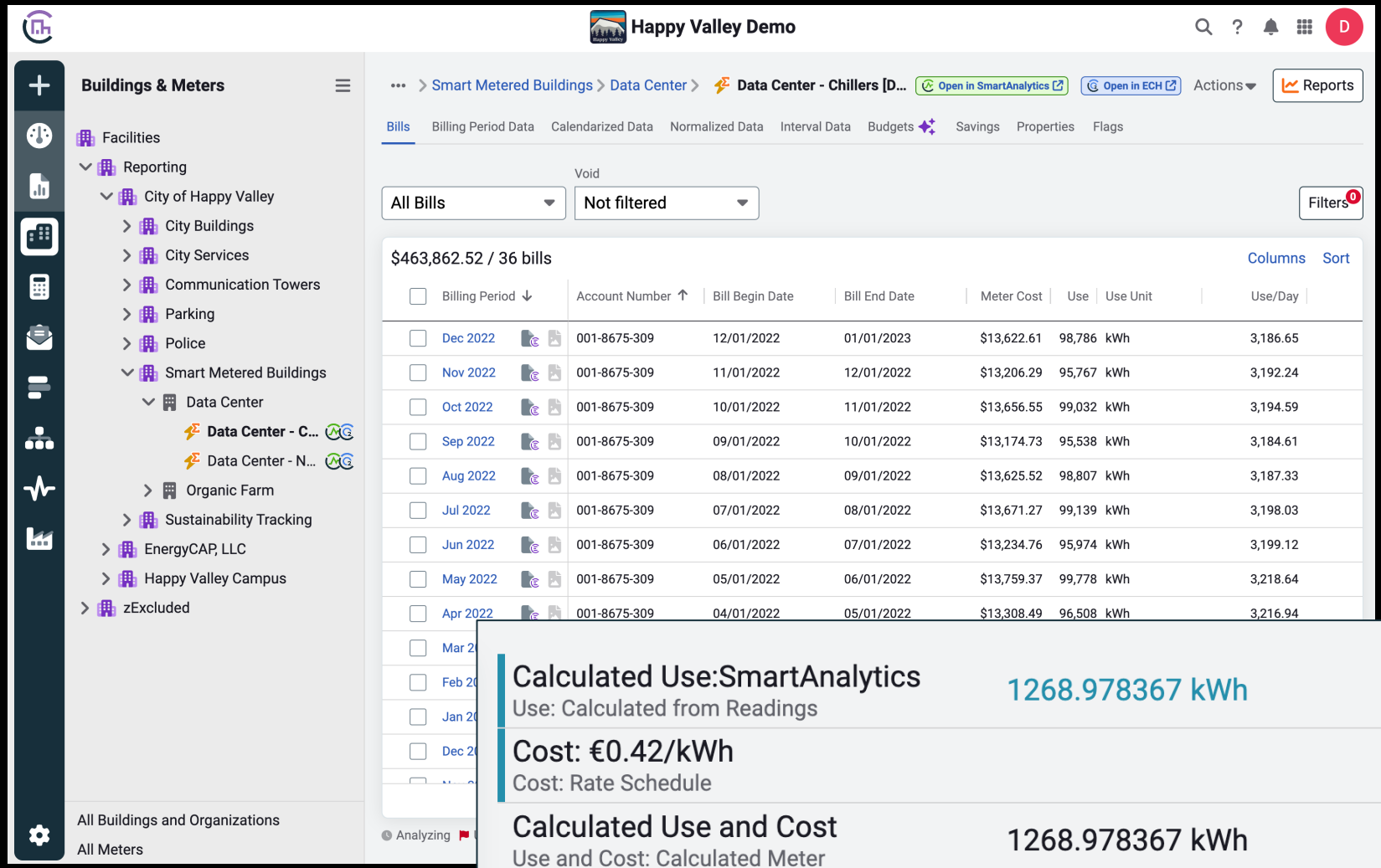
Meter	This step	Jun 2018	Use	Jun 2017	May 2018	Unit Cost	Cost
SUB-SW-LA MALL-STORE A-ELE01	1 bill	1 bill	39,117.23 kWh	▼ 15 %	▲ 37 %	$ 0.110/kWh	$ 4,305.38
SUB-SW-LA MALL-STORE A-NG01	1 bill	1 bill	76.90 THERM	▼ 56 %	▼ 59 %	$ 1.060/THERM	$ 81.49
SUB-SW-LA MALL-STORE B-ELE01	1 bill	1 bill	41,814.97 kWh	▼ 15 %	▲ 37 %	$ 0.110/kWh	$ 4,602.30
SUB-SW-LA MALL-STORE B-NG01	1 bill	1 bill	92.92 THERM	▼ 56 %	▼ 59 %	$ 1.060/THERM	$ 98.47
SUB-SW-LA MALL-STORE C-ELE01	1 bill	1 bill	40,466.10 kWh	▼ 15 %	▲ 37 %	$ 0.110/kWh	$ 4,453.84
SUB-SW-LA MALL-STORE C-NG01	1 bill	1 bill	105.73 THERM	▼ 56 %	▼ 59 %	$ 1.060/THERM	$ 112.05

2 Calculate Common Area Bills

Subtract the submeter bills from the vendor bills to determine use/cost for common areas

Meter	This step	Jun 2018	Use	Jun 2017	May 2018	Unit Cost	Cost
LA_MALL-COMMON_AREA-ELE01	1 bill	1 bill	13,488.70 kWh	▼ 5 %	▲ 37 %	$ 0.110/kWh	$ 1,484.61
LA_MALL-COMMON_AREA-NG01	1 bill	1 bill	44.86 THERM	▼ 49 %	▼ 59 %	$ 1.060/THERM	$ 47.54

Easily link between products



Calculated Use:SmartAnalytics Use: Calculated from Readings	1268.978367 kWh			
Cost: €0.42/kWh Cost: Rate Schedule			€	532.97
Calculated Use and Cost Use and Cost: Calculated Meter	1268.978367 kWh		€	532.97
Meter Subtotal	**1268.978367 kWh**	**€0.420 / kWh**	**€**	**532.97**

Open in SmartAnalytics

Additional UtilityManagement Features

Public/embeddable dashboards

Detailed user permissions and configuration

Energy Use Intensity calculations and reporting

Building-level M&V (IPMVP Option C)

Vendor bill auditing and approval

Integration with accounting platforms

Unit conversion engine

Automatic multi-currency support

Many more…

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EnergyCAP UtilityManagement Catalyst Sessions

How EnergyCAP Does Data Capture – Wednesday AM

M&V: Using Option B vs. Option C – Wednesday PM

Bill Data Done Better – Wednesday PM

Your Data Your Way – Thursday AM

Chargebacks & Tenant Billing – Thursday AM

I Didn't Know It Could Do That! – Thursday AM

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EnergyCAP CarbonHub™ (ECH) overview

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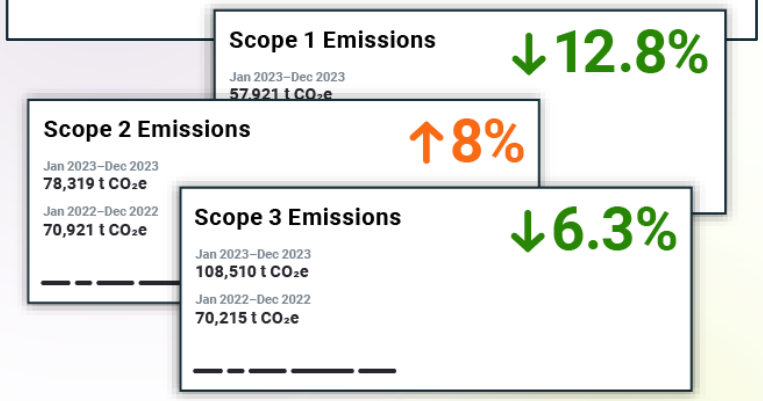
EnergyCAP CarbonHub // Financial-grade greenhouse gas accounting

ENERGYCAP CarbonHub™

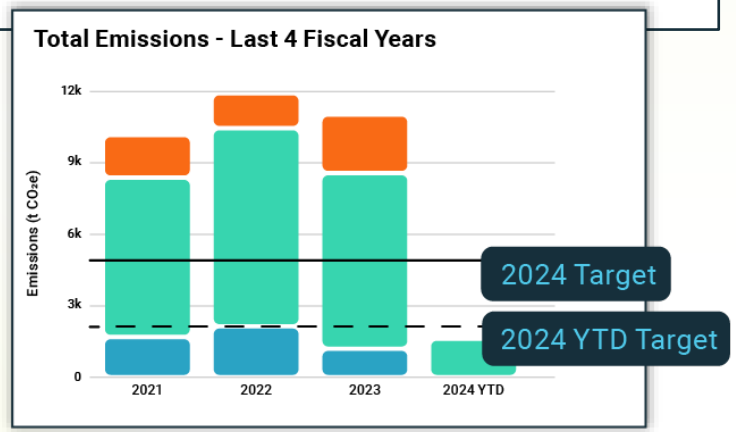
Calculate

Calculate Scope 1, 2, and 3 data across your business.



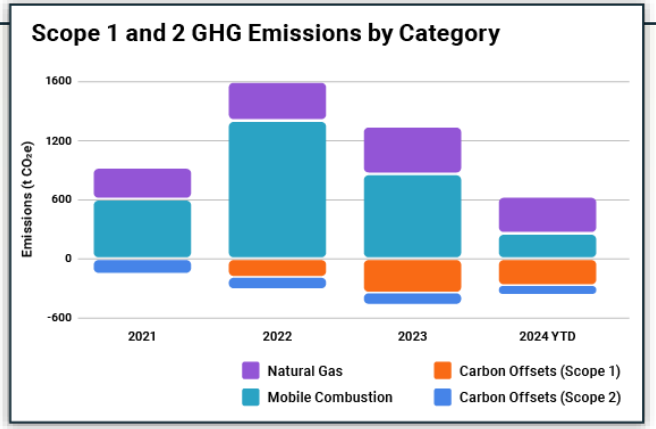
Target

Set targets and track performance to your decarbonization goals.



Report

Access robust analysis and GHG reporting functionality.



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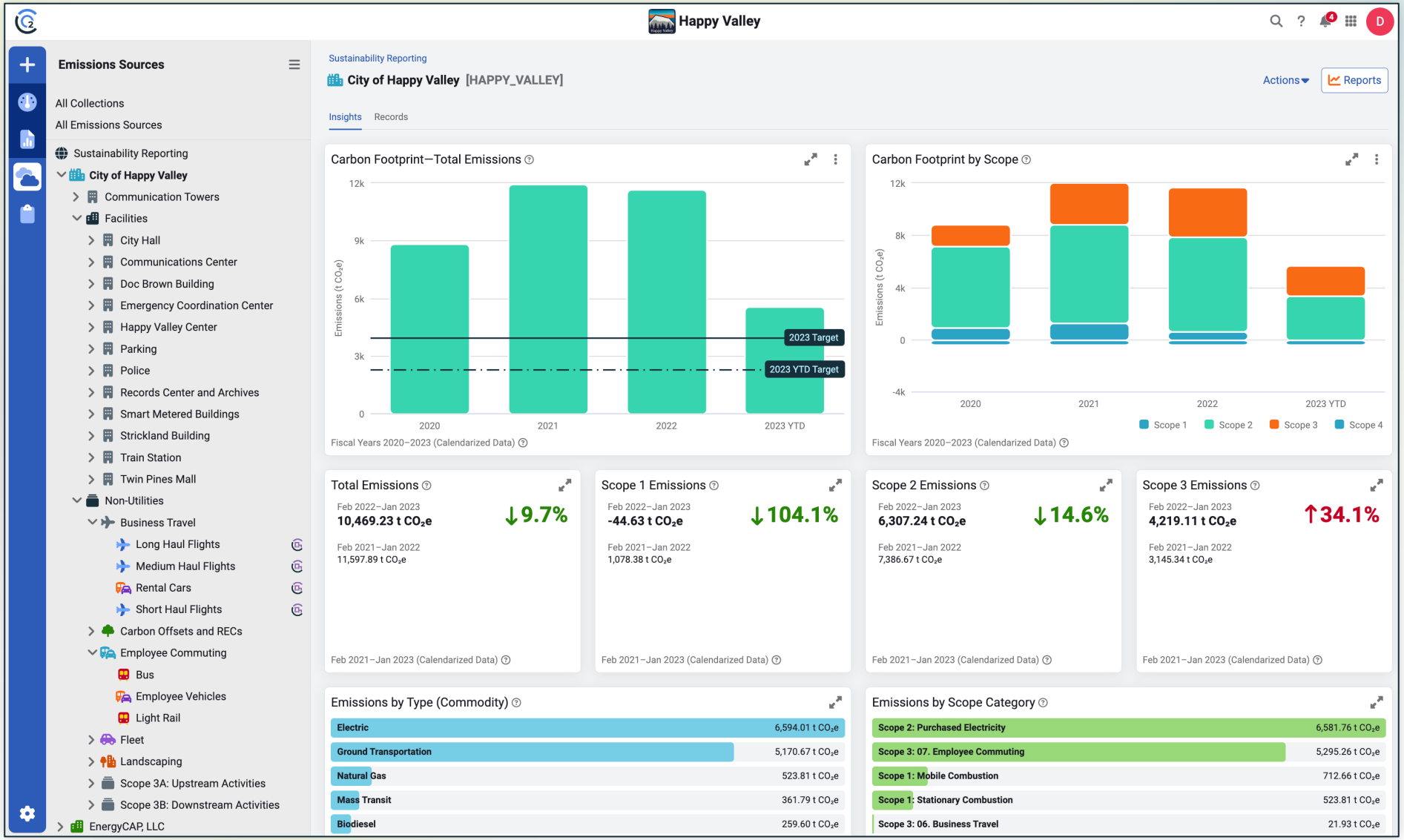
Dedicated Sustainability Hierarchy for Easy Reporting/Analysis



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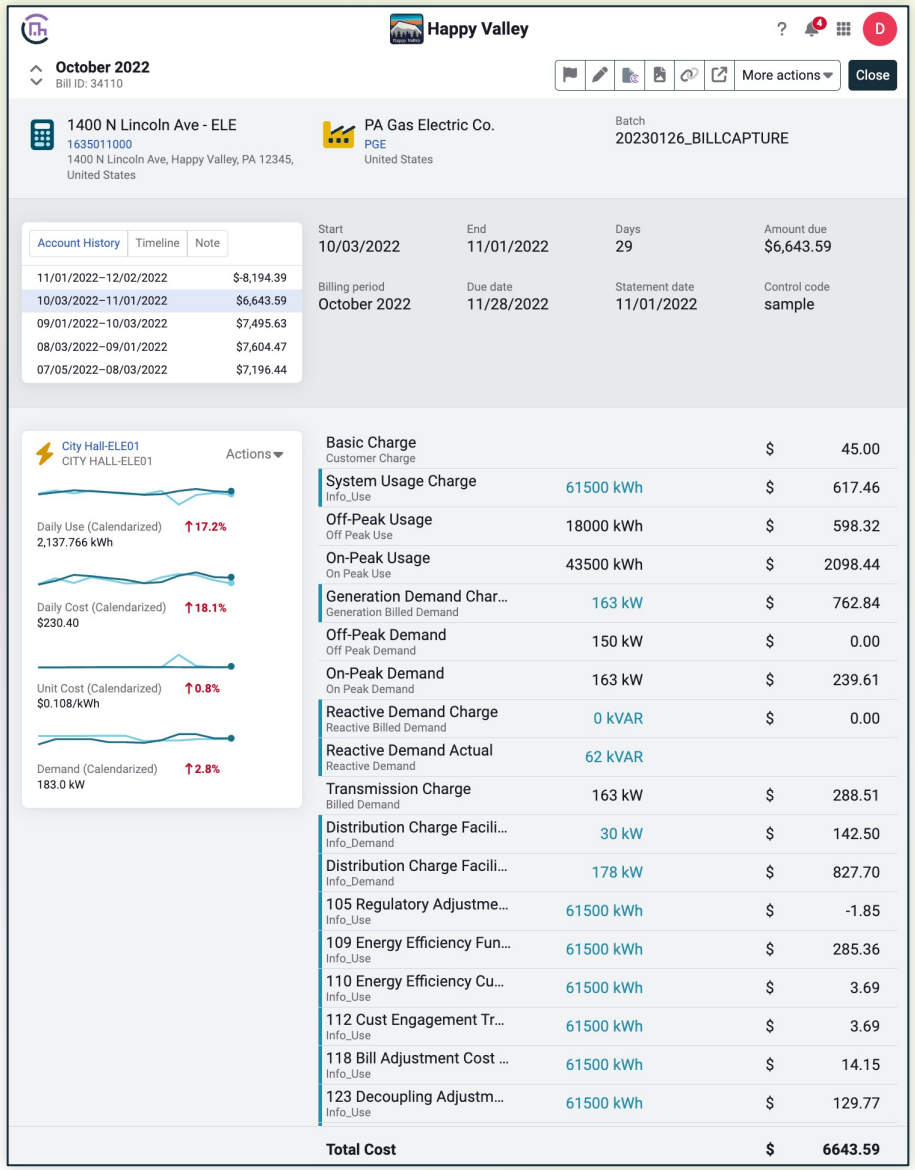
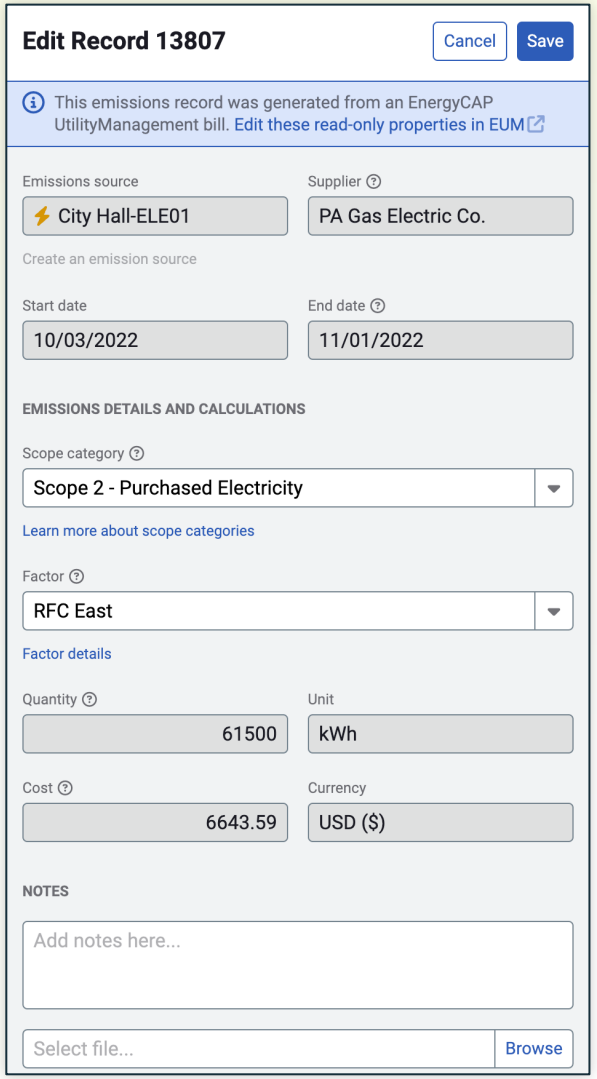
EnergyCAP CarbonHub // Integrates with EUM for financial-grade Scope 1/2





Double-dip on interval data and utility bills you're already tracking

Automatically reflect emission changes as utility bills are created/edited

Supplement source billing data with details in CarbonHub

Utilize advanced tools to track **Scope 3 impacts** directly from utility bills

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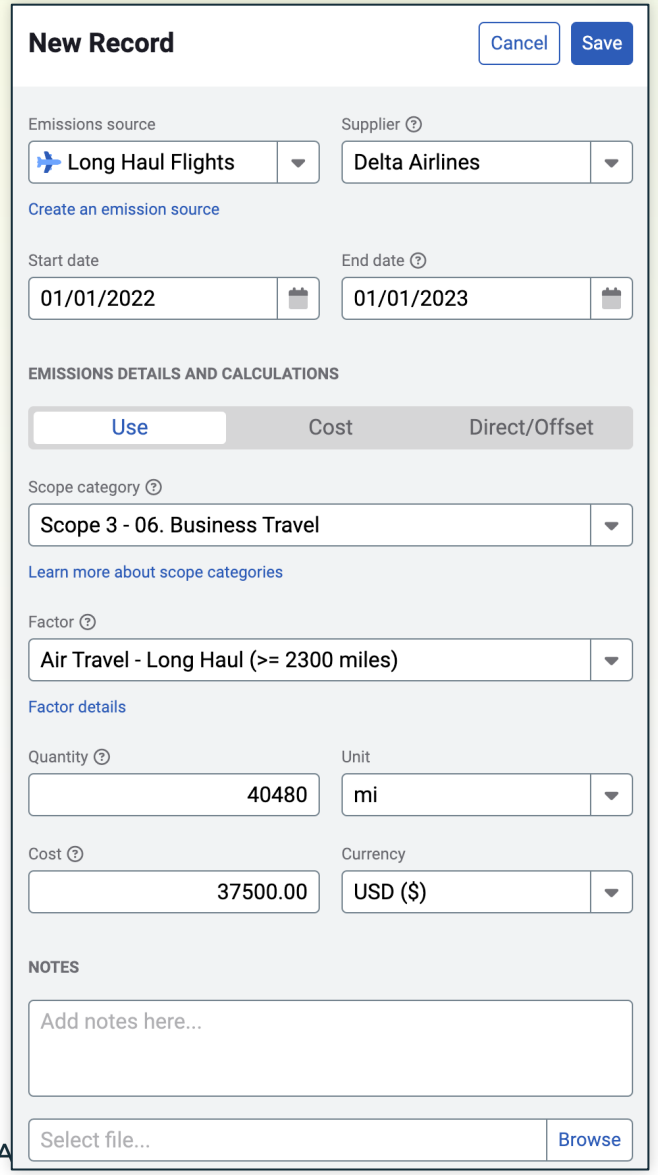
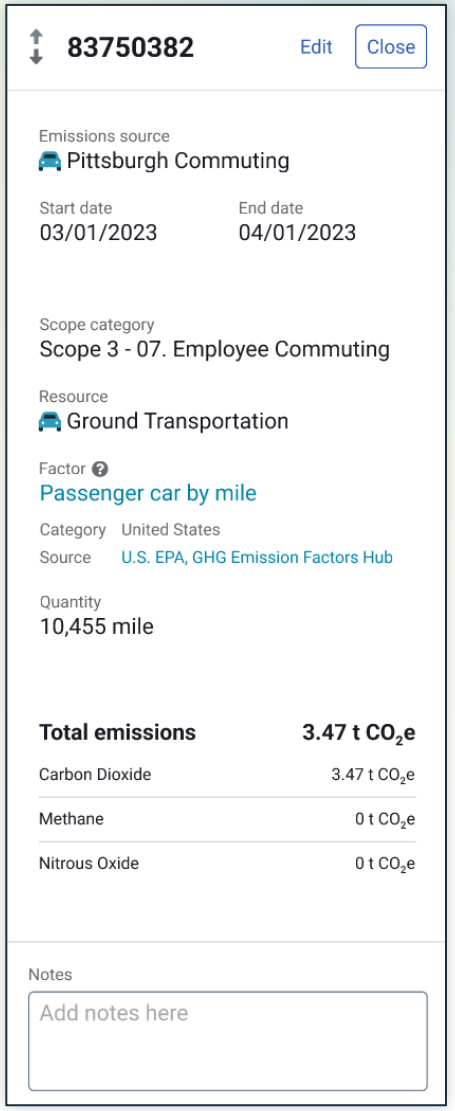
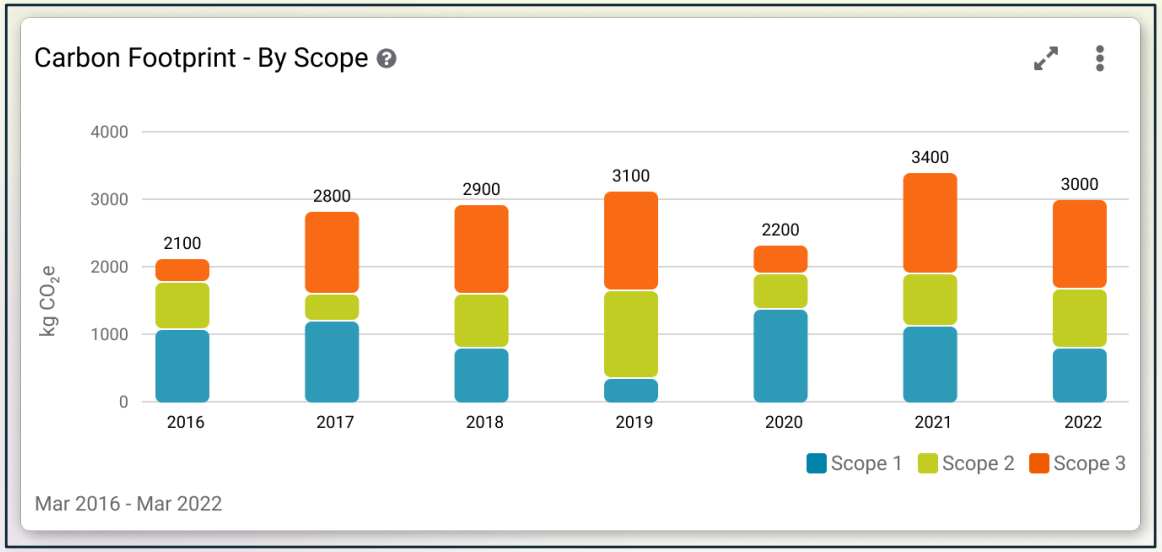
EnergyCAP CarbonHub // Easy emission and factor management

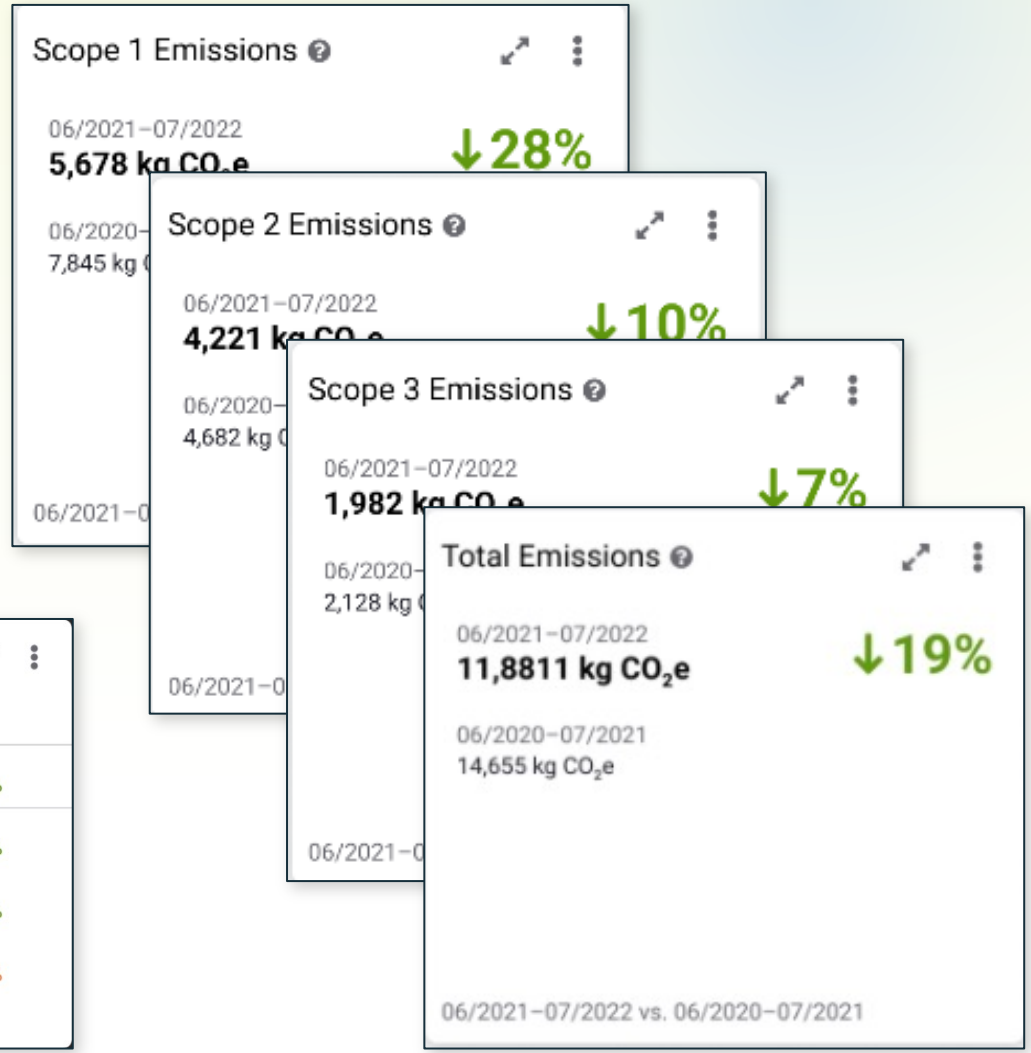
- Add unlimited emission source types
- Attach docs to emissions records
- Easier than ever to record data by
  - Activity
  - Cost
  - Direct emissions
- Includes over 3,000 global factors and counting!
  - Ability for multiple versions over time
  - Easily import custom factors
  - Support for industry-specific factors (EcoInvent, exiobase, etc.)

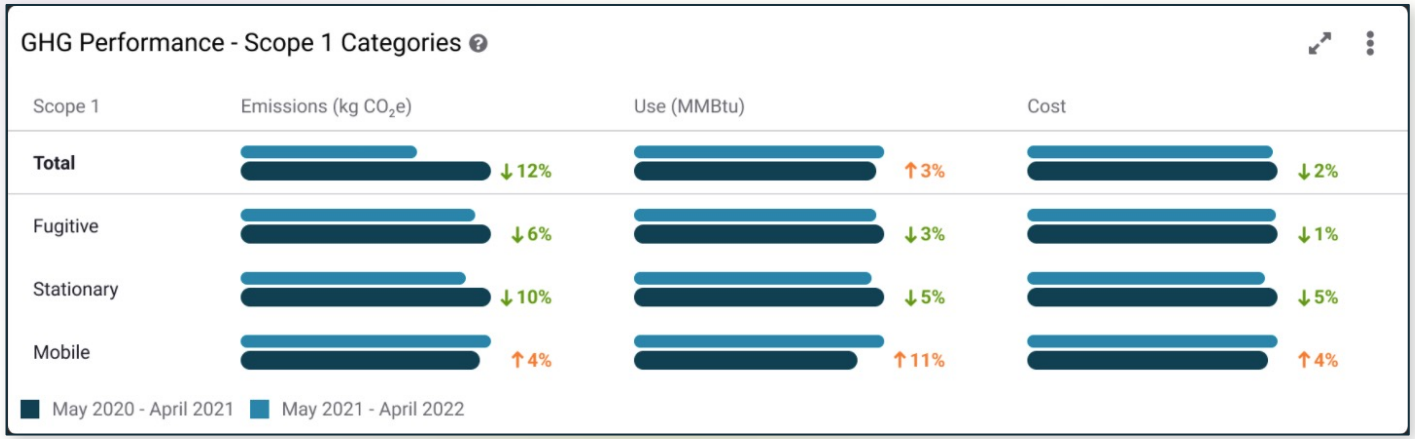




Granular GHG reporting, comparison, and analysis // All scopes







EnergyCAP CarbonHub Catalyst Sessions

Your Data Your Way – Thursday AM

Chargebacks & Tenant Billing – Thursday AM

ESG Regulations + CarbonHub – Thursday AM

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EnergyCAP Platform & Services

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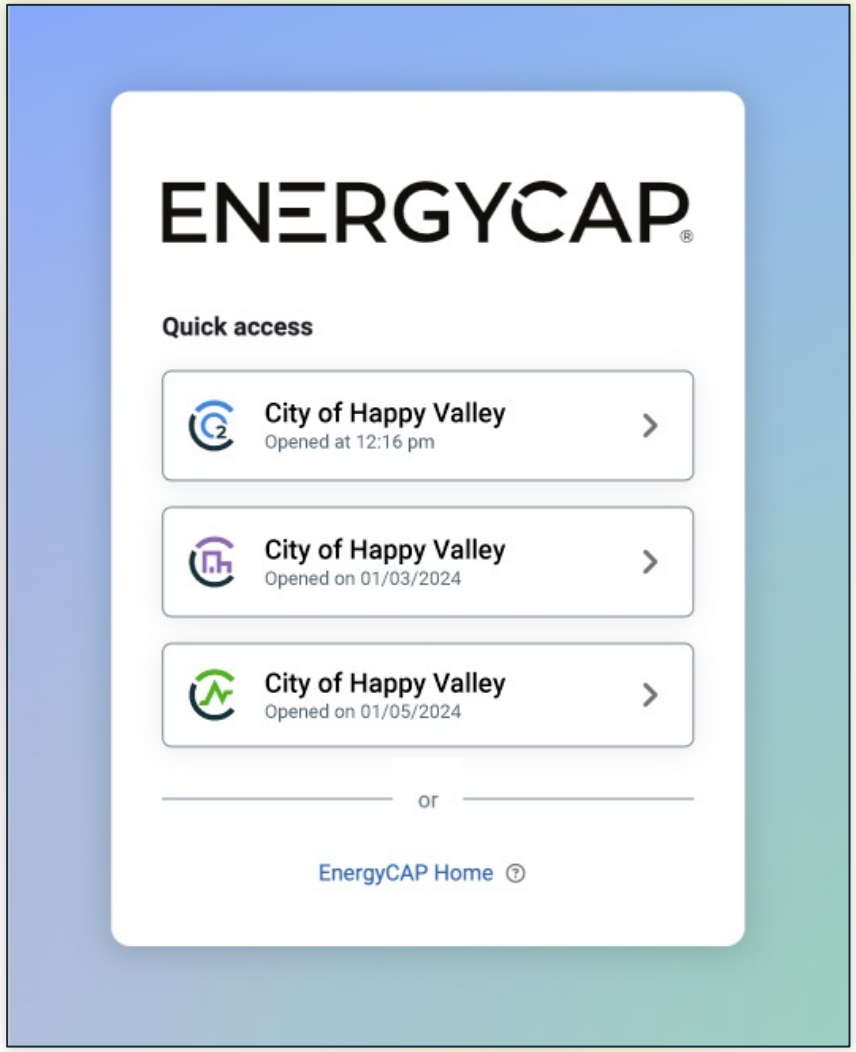
Single Sign-On (SSO) Access Across Products



Combined login for 1, 2, or 3 EnergyCAP products

Integrated single sign-on (SSO) options for customers with existing authentication tools

- Same username/password customers regularly use
- Follow organizational security rules
- Auto-create authorized users

Easily gain value of cross-product reporting and analytics

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Integration, interoperability, security

EnergyCAP API Platform

Robust resources available for developers to extend EnergyCAP features and integrate additional systems

Dedicated developer website: **https://developer.energycap.com**

Security

NIST and ISC standards-based security policies

FedRAMP certified

SOC2 certified

Continuous monitoring, regular vulnerability scans, automatic threat detection

Integrations

Built by EnergyCAP, clients, or third-parties

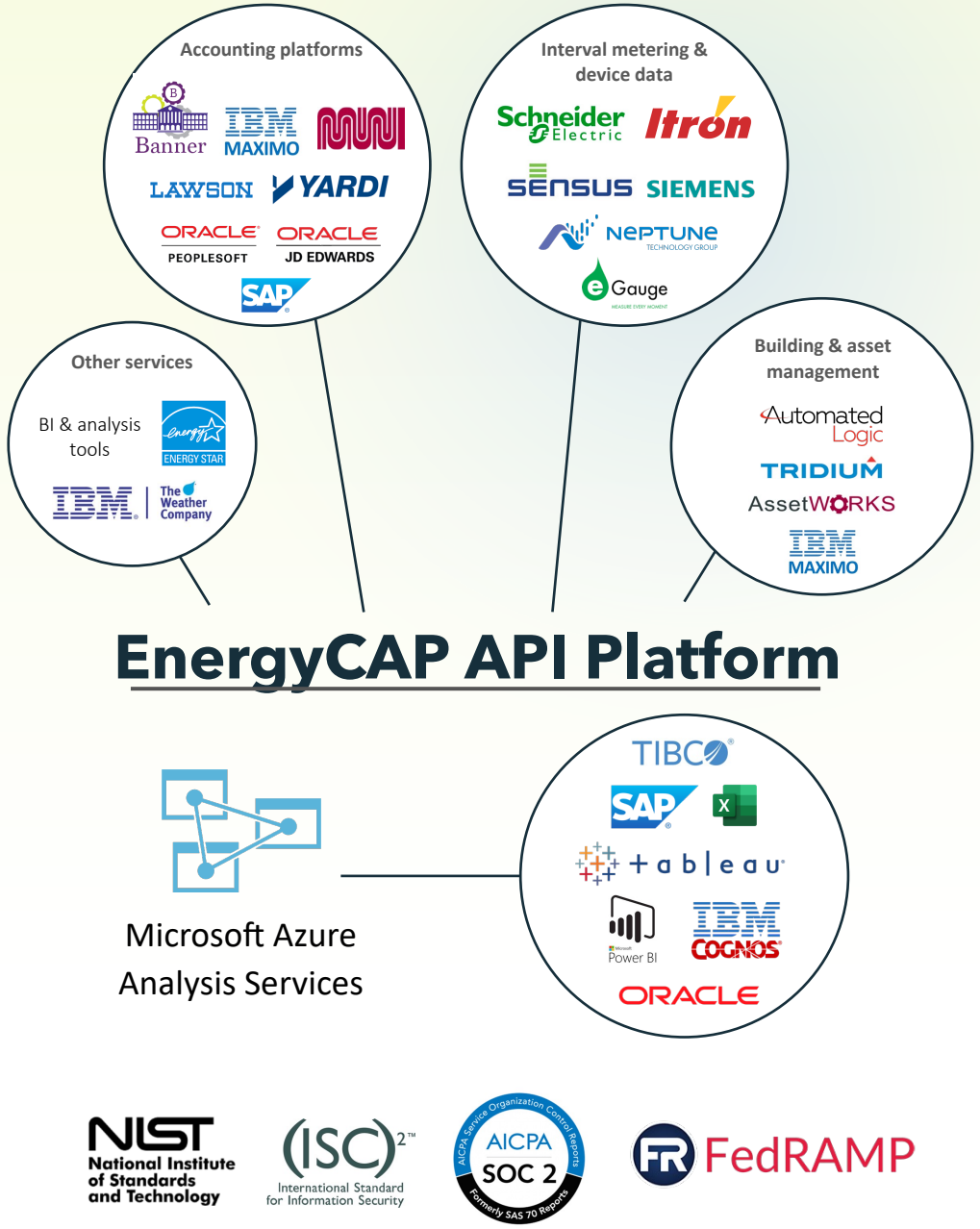
Business-critical integration services

- Accounting systems (AP, GL)
- Interval data from private/public metering systems
- Property and asset management
- Building management systems

Additional integration services

ENERGY STAR submission/reporting features

Business intelligence and reporting add-on



NIST National Institute of Standards and Technology

(ISC)² International Standard for Information Security

AICPA SOC 2 Formerly SAS 70 Reports

FedRAMP

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Integrate and analyze your data // EnergyCAP Report Designer BI

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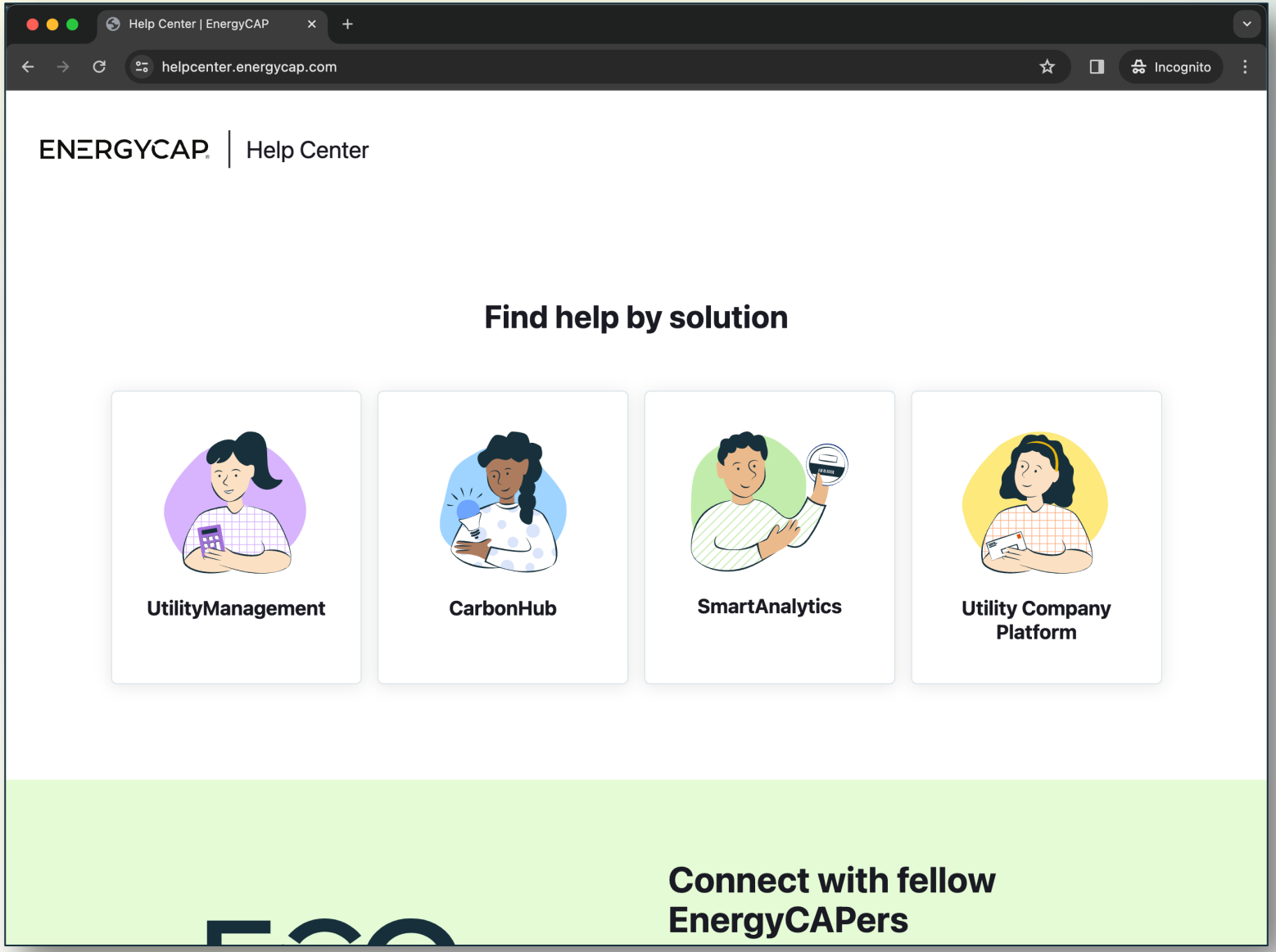

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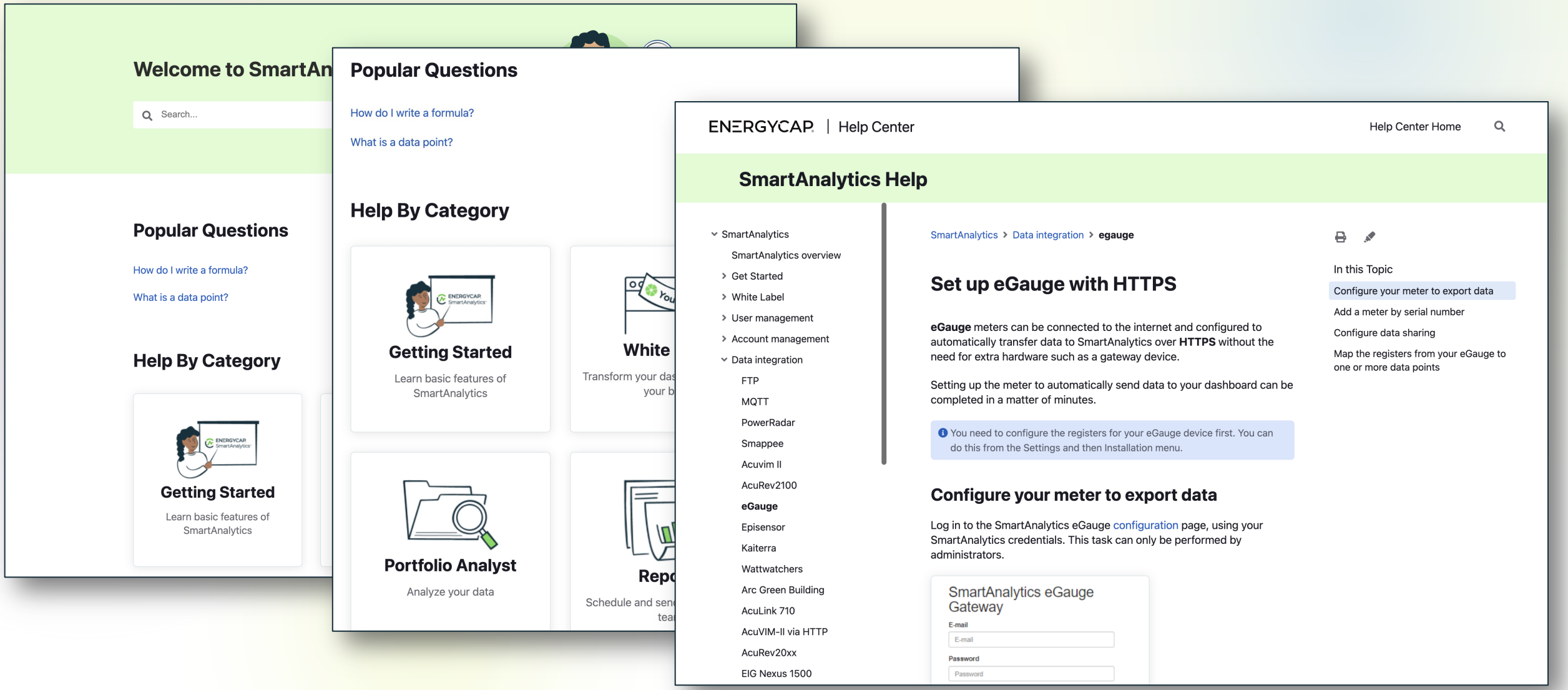

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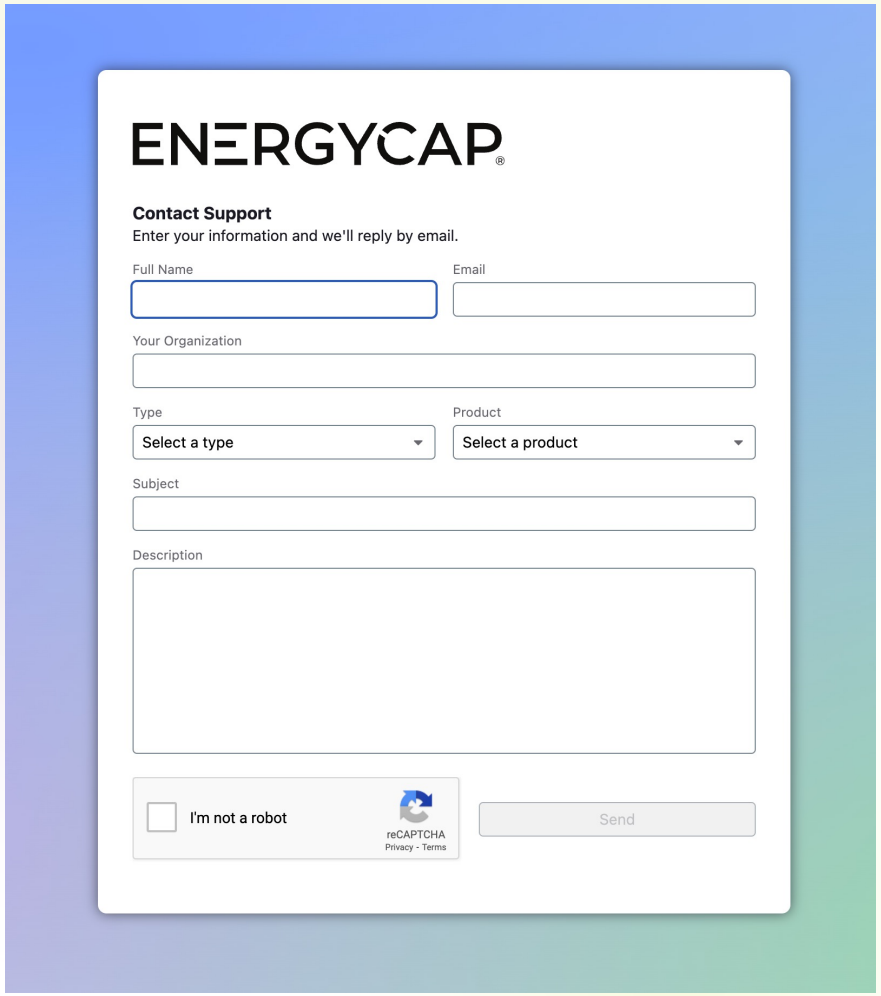
EnergyCAP Support Team



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https://energycap.com/subscribe-eco-champions

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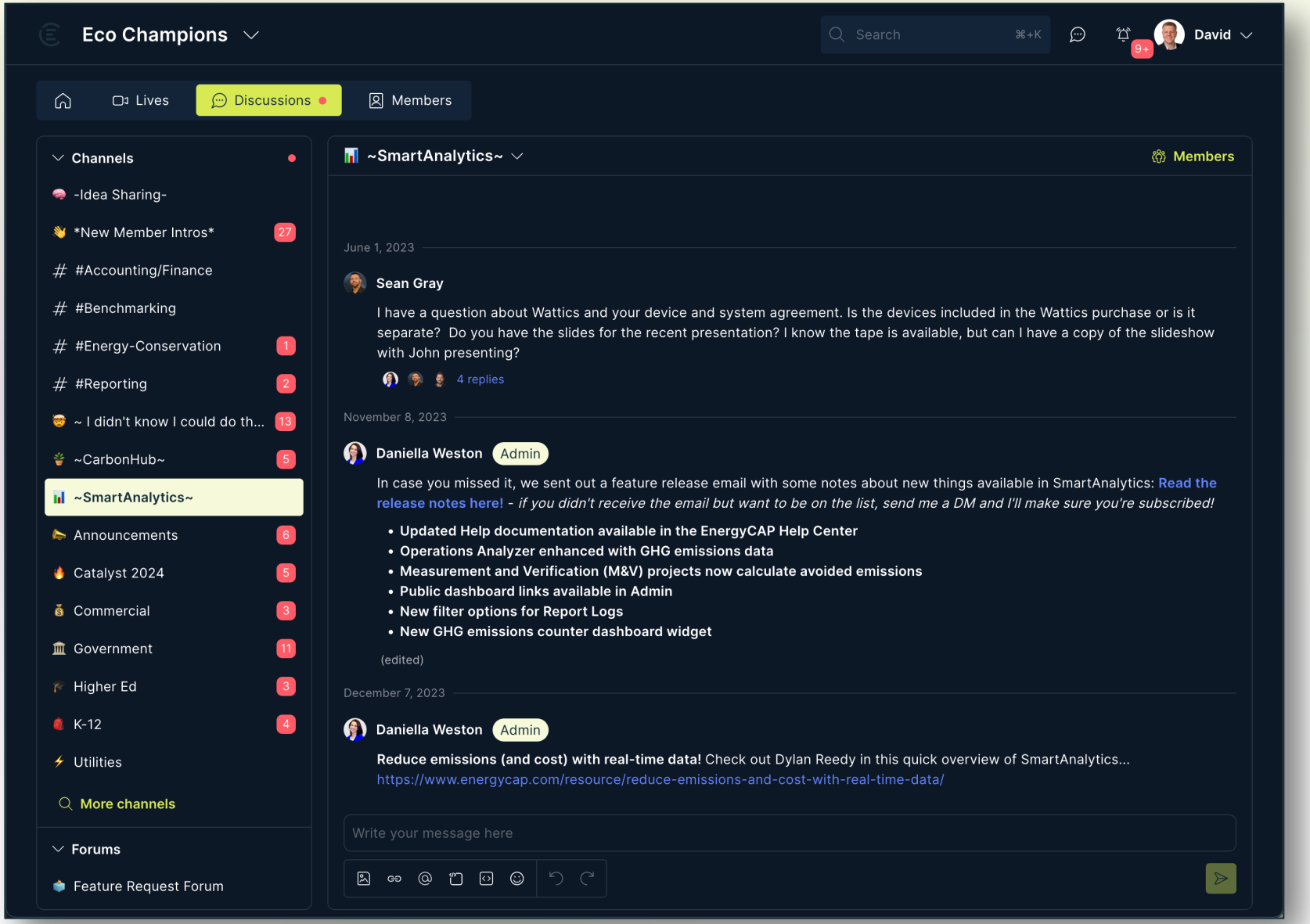

Sign Up Now

Making the Most of Your Catalyst Experience

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Be Curious, Ask Questions, and Share with Others

We want this week to be a practical learning experience for you

- Be curious – in and out of sessions
- Try something new!
- Ask questions to presenters and EnergyCAP team members
- Ask questions to other attendees
- Share what you know and what has worked for you
- Don’t go home with questions

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Jump In!

CATALYST

Ask about special discount opportunities for Catalyst attendees

Thank you for joining us!

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