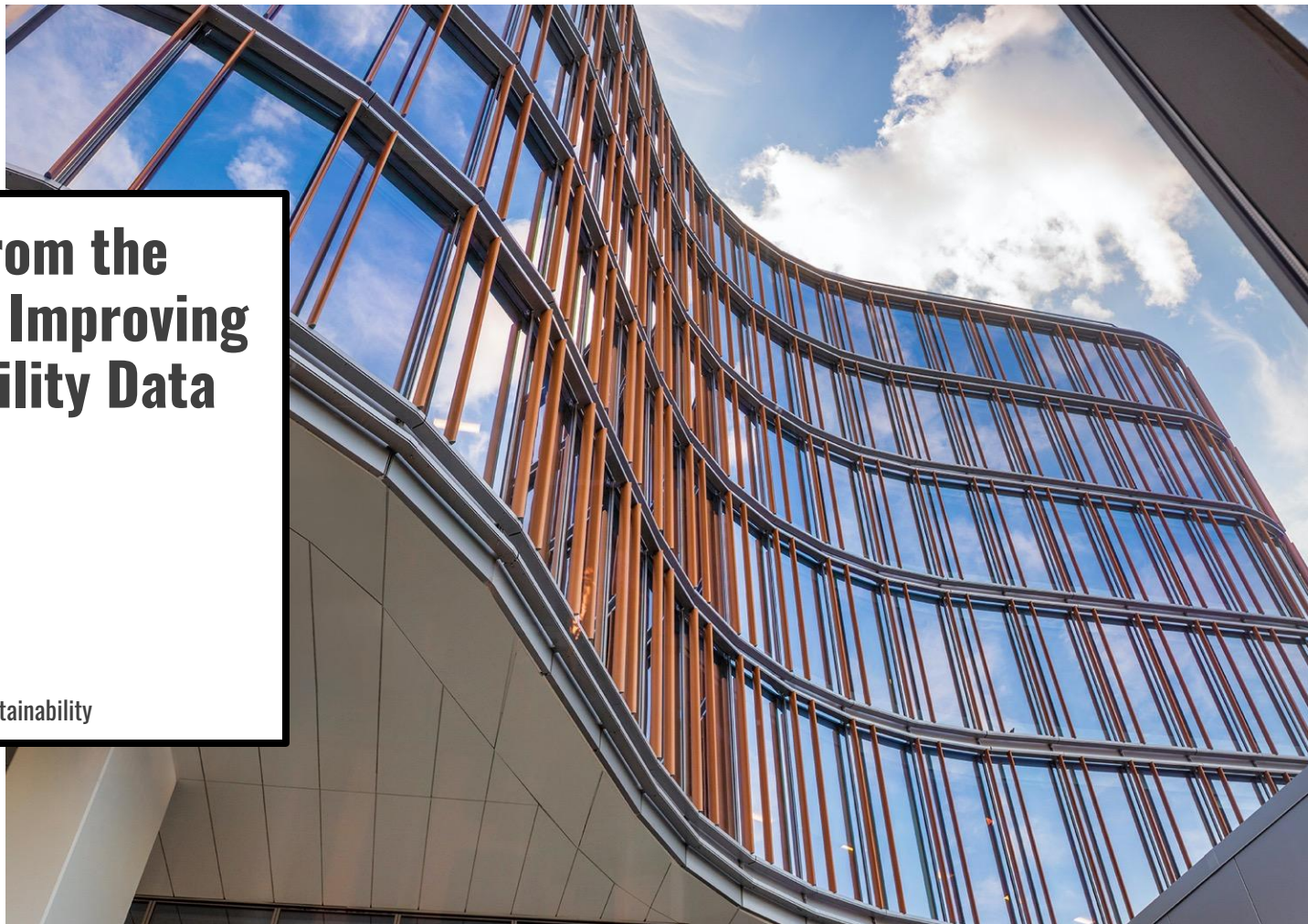


Lessons from the Trenches: Improving Sustainability Data Capture

Tenant Data Case Study

Michael Daschle, SVP Sustainability



Commercial office tenants consume approximately 60% of an office building's electricity load. Considering buildings are responsible for approximately 75% of the nation's electricity use and 40% of total carbon emissions, tenant engagement is a crucial piece of the overall decarbonization strategy.

Brookfield Properties Case Study

Building a better conversation starter



Which tenants should we engage first?

In a large office property with more than 30 tenants, how do we determine the most impactful engagement strategy? Which tenants should we start with and what information should we bring them to inform productive discussions?

Considerations:

- Highest aggregate energy users
- Highest energy intensity users
- Most receptive, aligned companies
- Benchmarking data available – similar size, industry, office fit-out date, operational profile, etc.

Tenant energy consumption inventory

Space- and time- specific analysis to pinpoint targeted areas of engagement

2.3M SF Downtown Manhattan Office Property

Tenant Name*	Rentable SF	RSF % of Total	kWh	kWh % of Total	kWh / RSF
Modern Securities	9,528	0%	380,000	3%	40
Capital Computer Sciences Group	132,092	6%	2,020,000	14%	15
Elevated Capital	7,193	0%	90,000	1%	13

2nd highest
intensity user

Largest consumers:

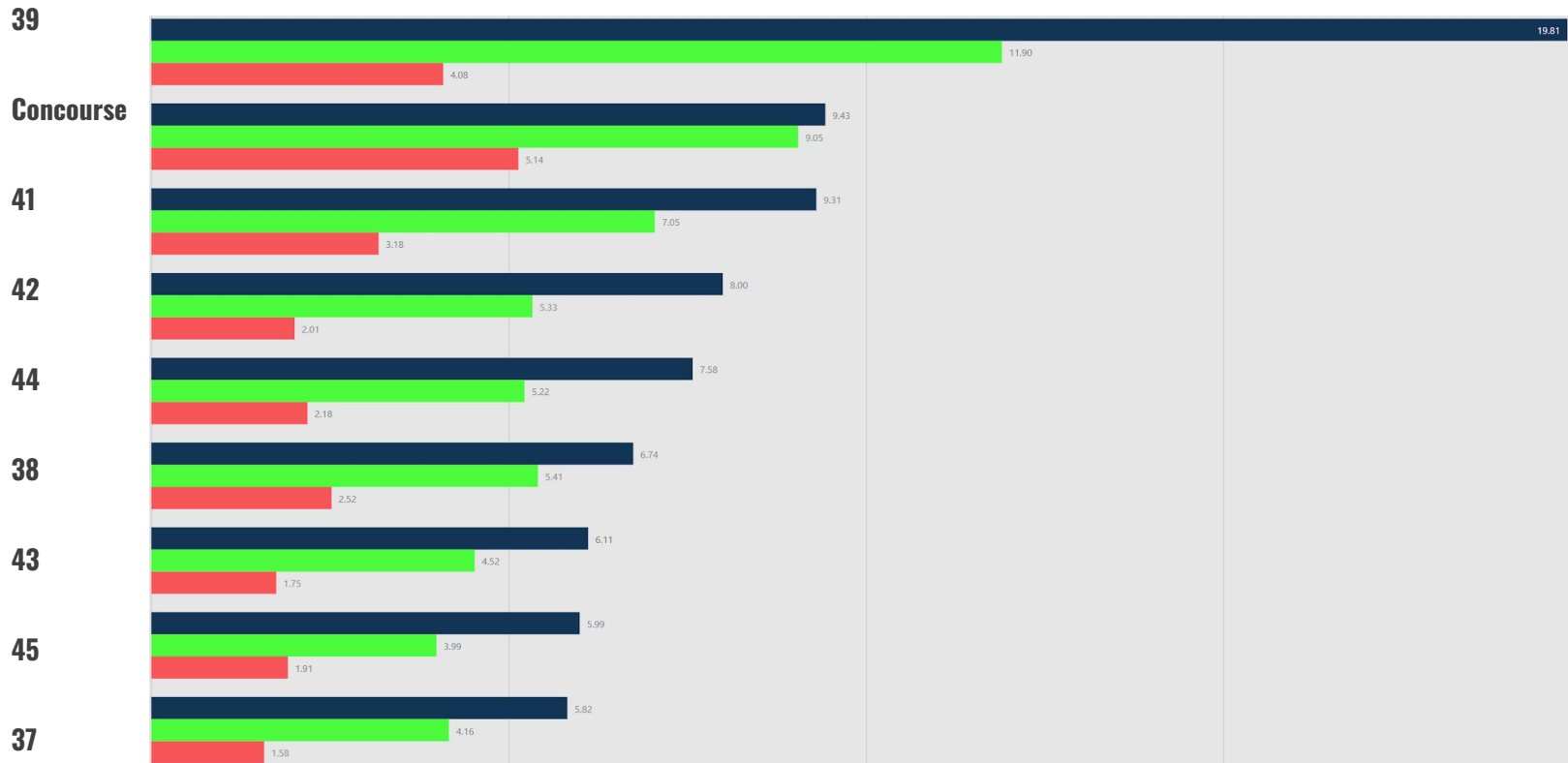
Smith, Johnson & Taylor LLP	366,947	16%	3,170,000	22%	9
Capital Computer Sciences Group	132,092	6%	2,020,000	14%	15
National Association	231,617	10%	1,470,000	10%	6
Empire Insurance	216,177	9%	1,170,000	8%	5

2nd highest
total user

**Tenant names altered for anonymity*

Tenant Energy Intensity by Load Floor and Year

2019-2021



Data Quality

Madeline Robertson
Director of Sustainability
Greystar

Roles & Responsibilities

Utilities

- Provide whole building data where regulations required

Asset/Property Managers

- Manage the Utility Billing Provider Relationship
- * Educate on site teams

Owners

- Collaborate with partners on goal management

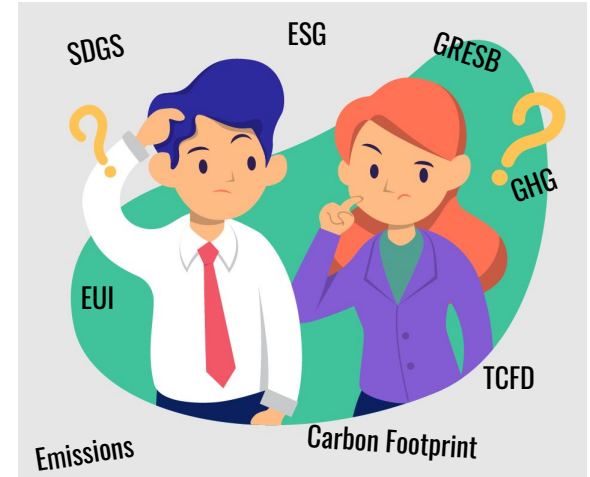
Closing the Sustainability Lexicon Gap

Owner Sustainability Surveys



Greystar Sustainability Team

On Site Community Teams



Nuveen <> Greystar Case Study



Objective: Complete Nuveen's 2023 SSBB Survey (700+ questions and sub questions)



Respondents: Greystar Regional Property Managers and Community Managers



Challenge: Knowledge gap, resulting in incomplete data

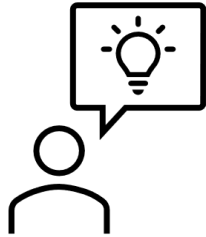


Solution: Greystar Sustainability to train and support RPMs & CMs on survey language

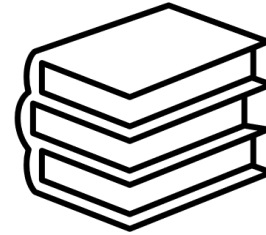


Result: Increased collaboration internally and externally, survey results to follow in March

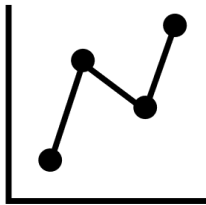
Sustainability Translation Tactics in 2023



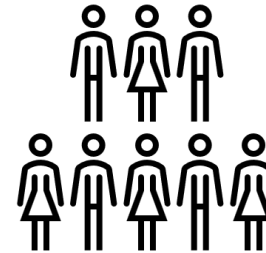
- Sustainability Team
- Ongoing questions
 - Live trainings
 - Resource creation



- Resource Library
- Toolkits
 - Regional resources
 - Green Glossary

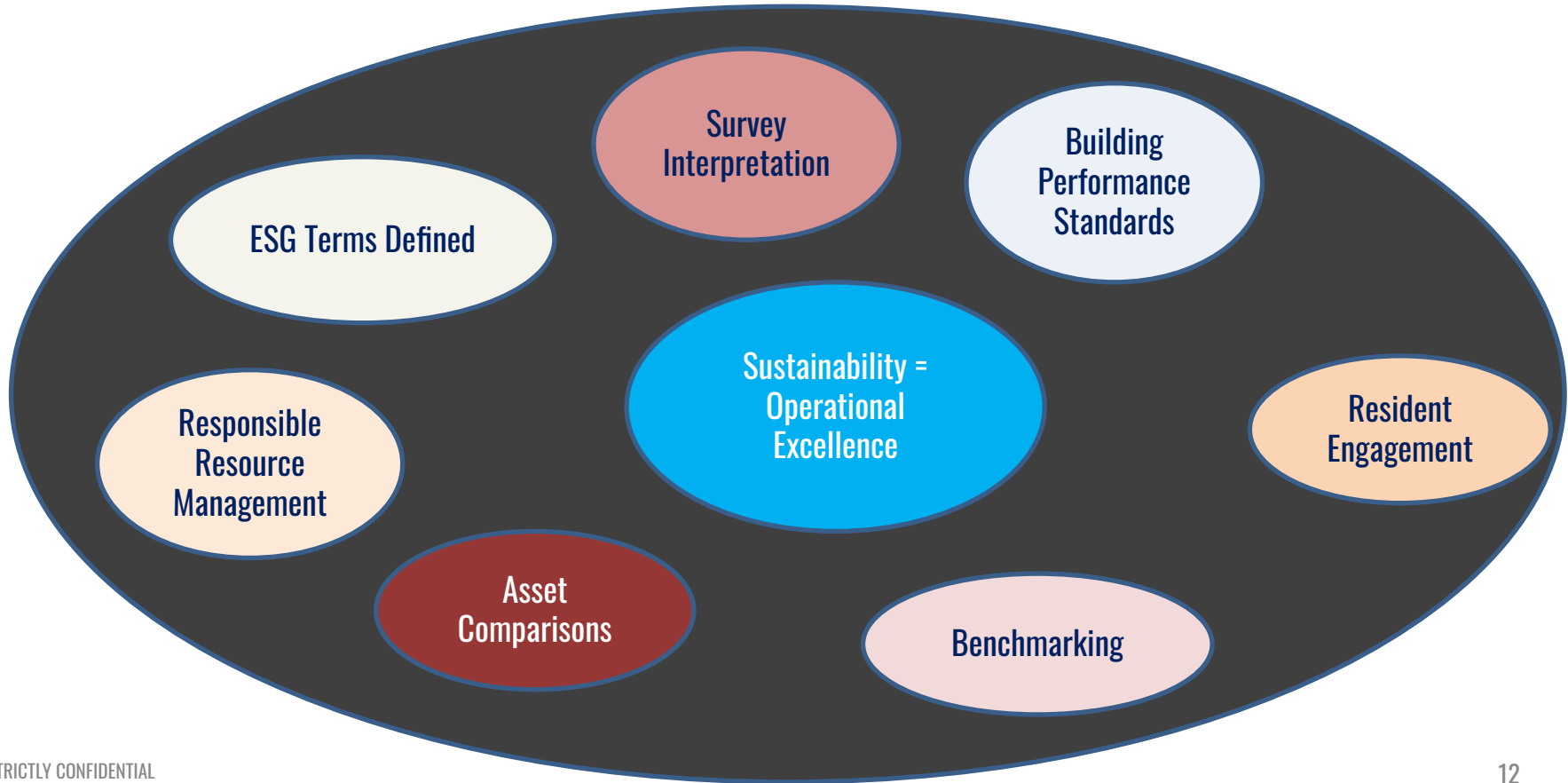


- Data Management
- Active oversight
 - Leveraging PowerBI



- Internal Education
- Peer to peer
 - Hierarchical

Education Focus Areas



Greystar Current Projects

NAA Sustainable Living Addendum Update

Local Utility Capture Forms

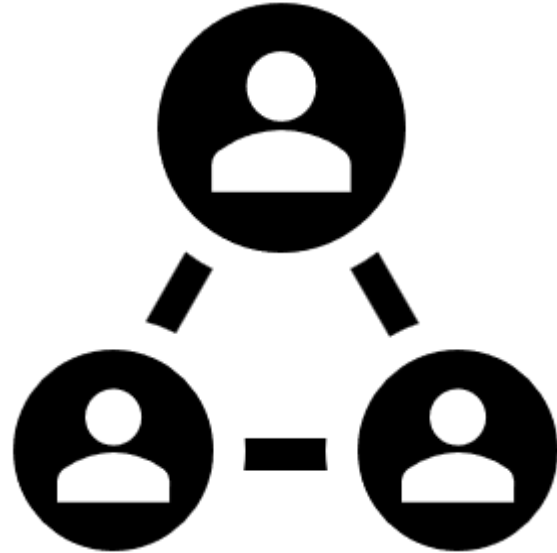
Utility Billing Partners Requesting Whole Building Data

Active ESPM Management

Internal Education

Future State

- Higher quality data
- Enhanced collaboration and goal sharing between owner property manager
- Streamline roles & responsibilities leads to more time for impact
- Empowerment of onsite community teammates
- Knowledge can shine through to residents (over 740,000 units)



Lessons at Greystar

Active ESPM Management

- Sharing profiles
- Manage blind spots

Constant Stakeholder Engagement

- Communicate feasibility and goals
- Consistent touchpoints

Accessible Education

- On site team involvement
- Internal education

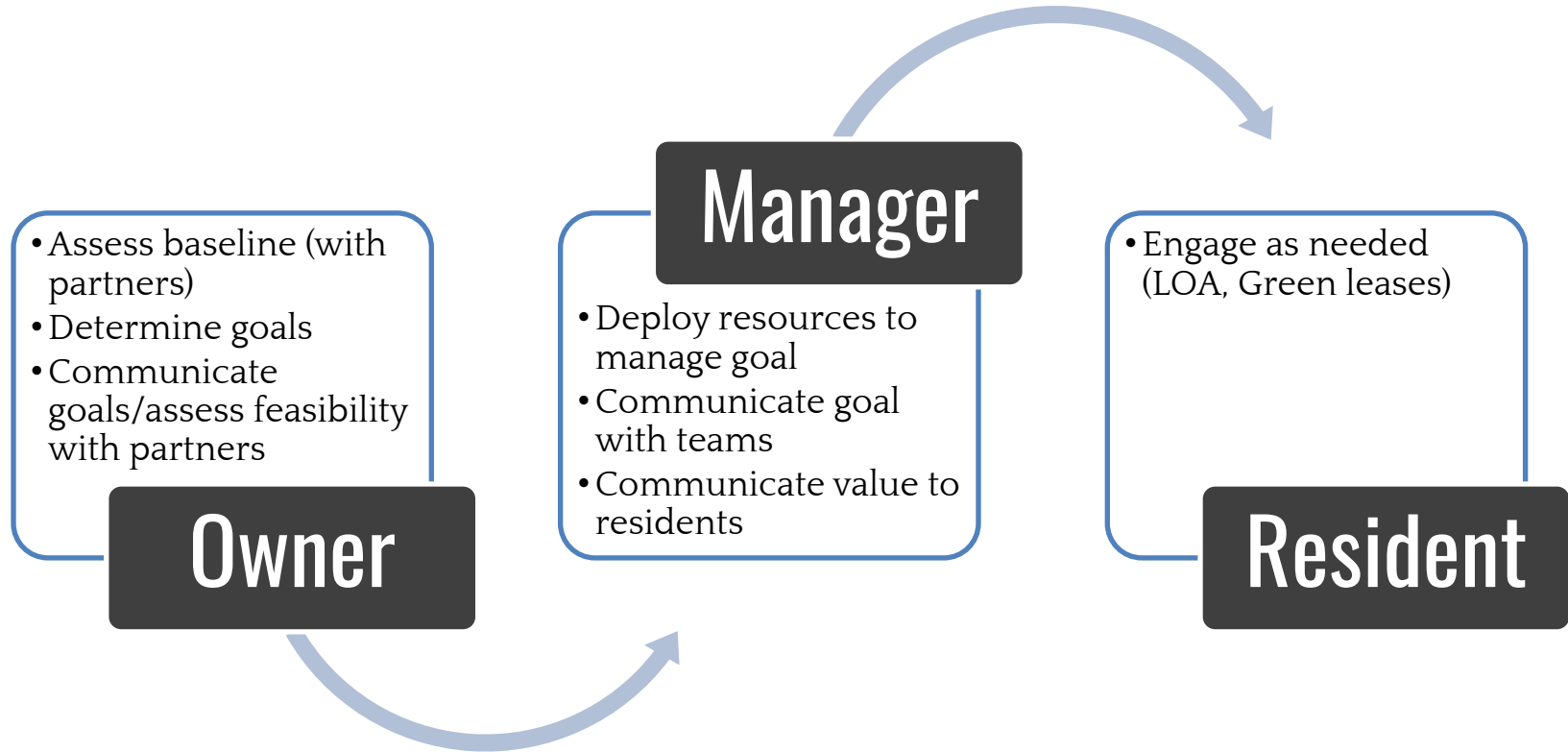
ESPM Data Quality

Strategies

- Weekly touchpoints with utility billing managers
 - Internal audits to risk assess if there are communities not covered by UBM's benchmarking services
- Internal or external point person overseeing:
 - Onboarding (escalations)
 - Live data quality
 - Transitions
 - Sharing guidelines (designating PDA where applicable, etc.)
- Benchmarking tracker
 - Ensuring data quality ahead of deadlines (city energy reporting, HUD Green Loan Reporting)
- ESPM audit
 - Check for duplicates/unshared profiles
 - Confirm attributes



Communication Cycle



Sustainability Data Transparency & Real Estate Stakeholder Alignment

Stephanie Grayson
Cofounder & Co-CEO
Cambio


(Previously KKR & Goldman Sachs)

✉ stephanie@cambio.ai

☎ 914.924.9256

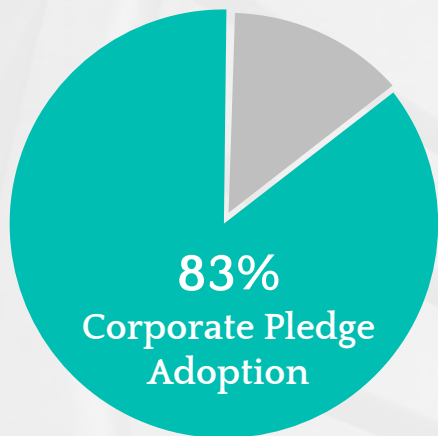
⚙ Cambio.AI



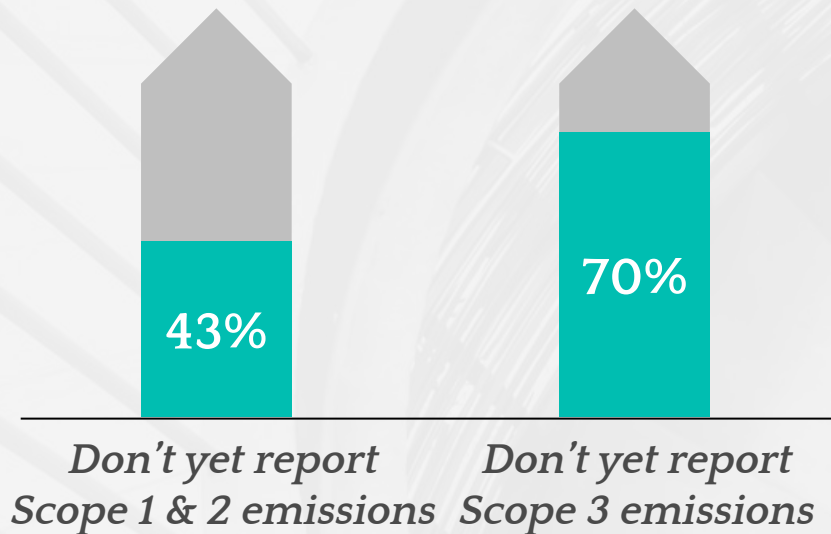


Sustainability has gone from
best practice to *table stakes*,
requiring all real estate stakeholders
to come to the table

An expected **12,000 companies will be impacted** by the SEC's carbon emissions reporting requirements, driving more corporate pledges



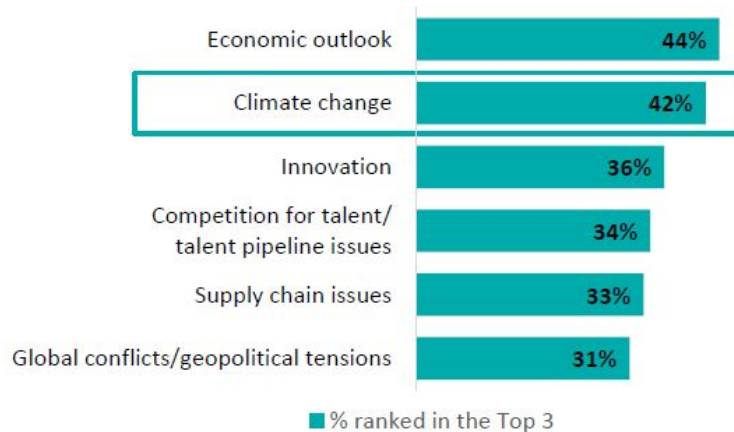
despite...



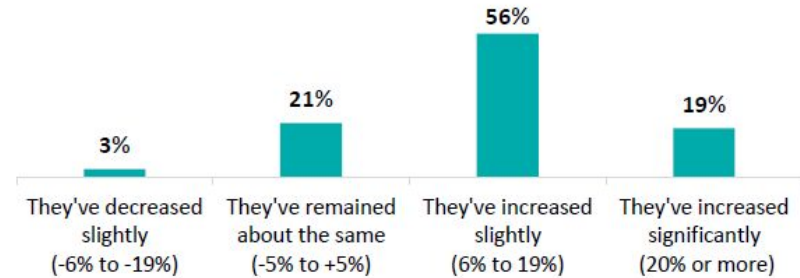
Climate change has risen to the top of the corporate agenda



What does your organization see as the most pressing issues to focus on over the next year? (rank in order of importance)



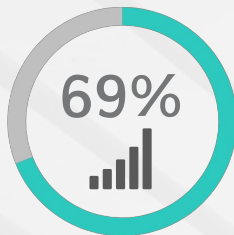
How have your sustainability investments changed over the last year?



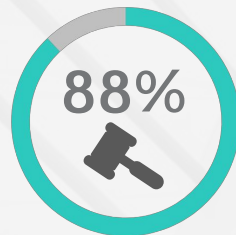
*75% of executives say their organizations have **increased their sustainability investments**, nearly 20% of whom say they've increased investments "significantly"*

Meanwhile more and more LP investors are requiring ESG prioritization and transparent sustainability reporting

% LPs believe strong ESG policy drives **better results**



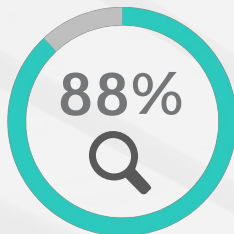
Outperformance



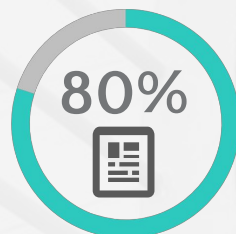
% of LPs use ESG when making **investment decisions**²

Investment Decision

% LPs weigh ESG in manager **due diligence**¹



Due Diligence



% LPs expect to increase GP ESG **reporting requests** in the next 3 years²

Reporting

The 'stakeholder pressure cooker' directly impacts asset performance, driving GPs to invest in sustainability



2.5–5% Green buildings achieve a **2.5-5% rent premium**



1–2% Green buildings see **1-2% lower vacancy**



.1–.25% Green buildings achieve **0.1-0.25% lower cap rates**



10–20% Green buildings achieve a **10-20% valuation premia**



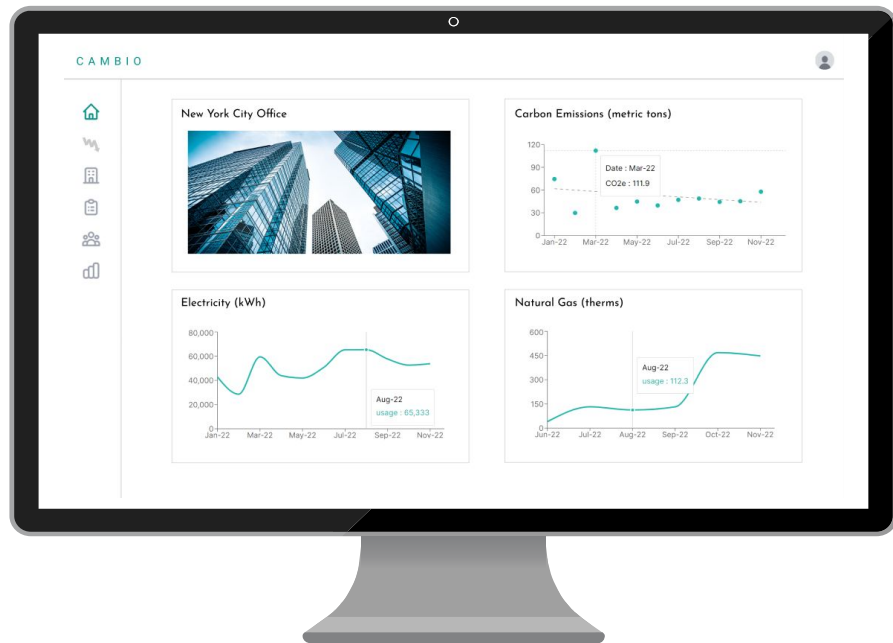
50%
**Pledged Real Estate
Emissions
Reduction by 2030**

*By Avison Young, Ivanhoe Cambridge & JLL,
to name a few*

The background image shows a vast landscape of rolling hills with a golden-brown hue, suggesting dry vegetation. The hills are covered in a complex pattern of ridges and valleys. In the distance, more hills are visible under a sky filled with soft, grey clouds. A semi-transparent dark grey rectangle is positioned in the upper half of the image, containing white text.

**Robust sustainability data drives
compliance, performance and
alignment**

Automated **carbon analytics** & accretive retrofit **recommendations** help *all stakeholders* measure and improve environmental performance



Accurate & automated data sourcing is needed to:



Measure and
inform



Improve and
perform

The Toolkit



Baseline measurement



Retrofit recommendations



Peer benchmarking



Regulatory recommendations



Automated reporting



Renewables recommendations



LPs are Prioritizing Fund-Level Sustainability Transparency

Cambio Limited Partner Webapp Interface

List View

Board

US Industrial Fund II



US Industrial & Office Core Fund



European Hospitality & Multifamily Fund



Diversified US West Coast Fund
















LPs are investing in *ranking* GP exposure by sustainability metrics like EUI

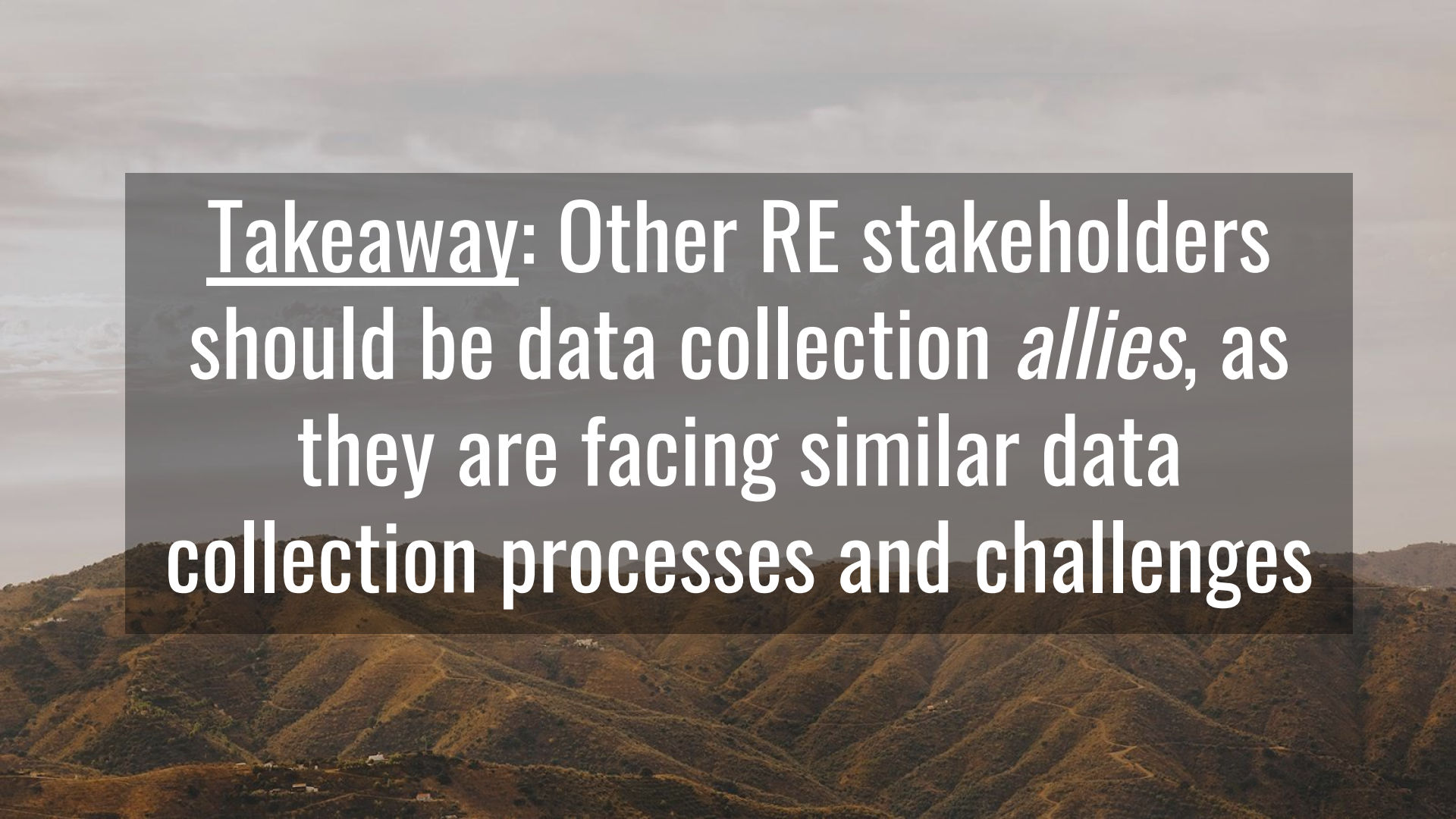


While Tenants are Actively Investing in Measurement & Compliance

Cambio Corporate Tenant Webapp Interface – Reporting Module

While the output reporting formats may vary, corporate tenants are investing in sourcing the same sustainability *input* data as GPs

 Dashboard	<h3>Reports</h3>	
	ESG Report Template <small>Get a head start on your quarterly or annual ESG report</small>	ESG Report Template 
	Form Green Lease Language <small>Standard lease language to prioritize climate goals</small>	Form Green Lease Language 
	Certification Exports <small>Pre-generated exports for your third-party certification requirements</small>	SBTI Performance Tracker 
 Reports		MSCI Sustainability Score Submission 
		Sustainalytics ESG Risk Rating Submission 
		Seattle Green Business Program 
 Reports		Colorado Green Business Program 
	Property Dashboards <small>PDF reports ready for internal or external circulation</small>	Total Portfolio 
		1800 Larimer Street 
		1420 Fifth Ave 



Takeaway: Other RE stakeholders
should be data collection *allies*, as
they are facing similar data
collection processes and challenges

31,829^{sf}

Total Area

56.7^{kBtu psf}

Avg Energy Usage Intensity

474.7^{metric tons}

Carbon Emissions

30.7%

% Renewable

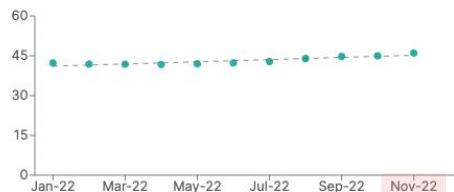
402,649^{kWh}

Electricity

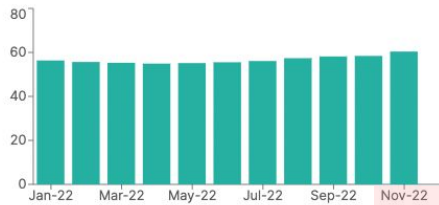
2,795^{therms}

Natural Gas

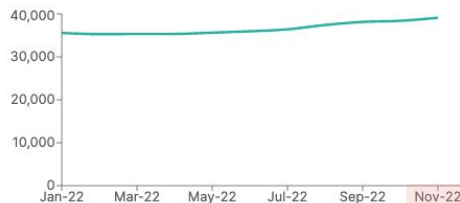
Carbon Emissions (metric tons)



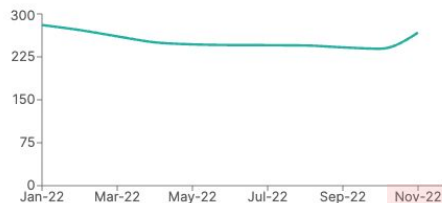
Energy Usage Intensity (kBtu psf)



Electricity (kWh)



Natural Gas (therms)

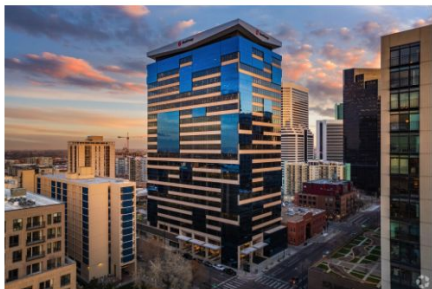


- As publicly-traded tenants must now report on their energy usage data, they have considerable risk exposure to incomplete data
- This incomplete dataset was provided by an owner via a manual collection process and flagged by Cambio's automated data validation tool



Incomplete energy data





31,829 ^{sf}
Total Area

35.5 kBtu psf
Avg Energy Usage Intensity

305.5 metric tons
Carbon Emissions

30.7%
% Renewable

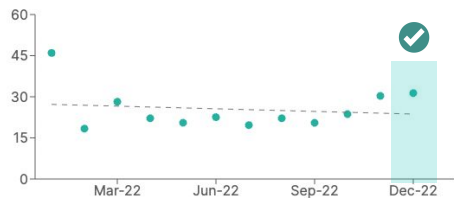
249,611 kWh
Electricity



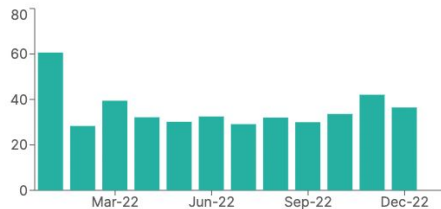
2,795 therms
Natural Gas

After Cambio QA

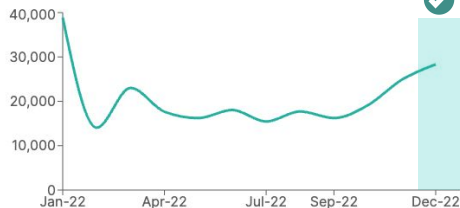
Carbon Emissions (metric tons)



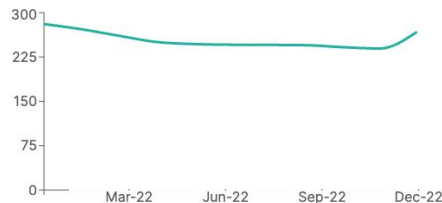
Energy Usage Intensity (kBtu psf)



Electricity (kWh)



Natural Gas (therms)



- With the SEC's Emissions Transparency Proposal, corporate tenants must invest not only in energy usage data tracking, but also in data assurance

- This is why corporates – like GPs – are investing in tools to support automated data collection and assurance

✓ Complete energy data





20,809 ^{sf}
Total Area

36.4 ^{kBtu psf}
Avg Energy Usage Intensity

42.9 ^{metric tons}
Carbon Emissions

75.0%
% Renewable

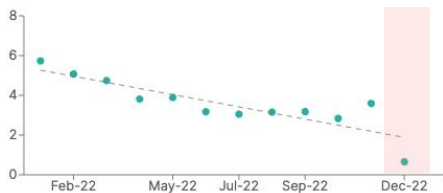
221,997 ^{kWh}
Electricity

N/A ^{therms}
Natural Gas

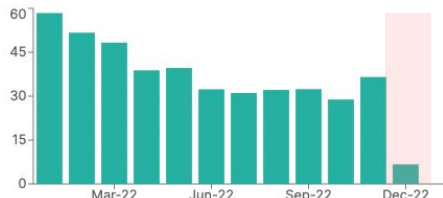
Before – Manual Collection

- This inaccurate dataset was provided by an owner via a manual collection process and flagged by Cambio's automated data validation tool

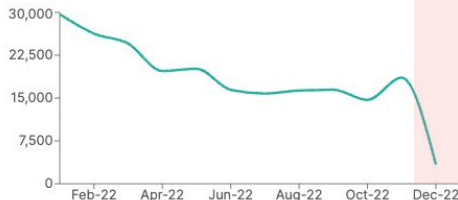
Carbon Emissions (metric tons)



Energy Usage Intensity (kBtu psf)



Electricity (kWh)



Natural Gas (therms)



× Inaccurate energy data





20,809 ^{sf}
Total Area

40.3 ^{kBtu psf}
Avg Energy Usage Intensity

47.5 ^{metric tons}
Carbon Emissions



75.0%
% Renewable

245,798 ^{kWh}
Electricity

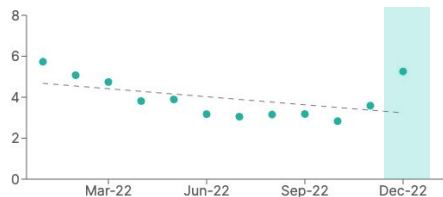


N/A ^{therms}
Natural Gas

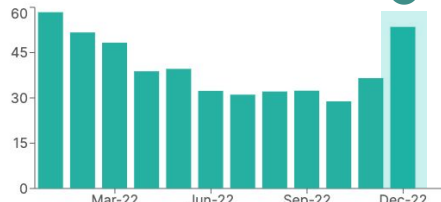
After Cambio QA

- Cambio was able to source correct data via direct utility integration

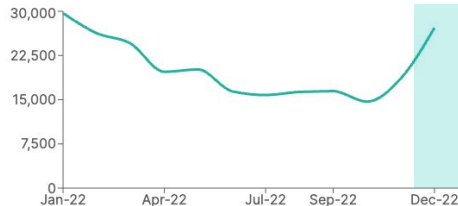
Carbon Emissions (metric tons)



Energy Usage Intensity (kBtu psf)



Electricity (kWh)



Natural Gas (therms)



✓ Correct energy data



Want to learn more? Reach out.



Stephanie Grayson
Cofounder & Co-CEO
Cambio



stephanie@cambio.ai



914.924.9256



Cambio.AI



Cambio is software that helps commercial real estate companies and their corporate tenants decarbonize their buildings.

CAMBIO

Our team comes from commercial real estate investing and operations, making Cambio the *sustainability solution for investors, by investors.*

We are backed by **FIFTH | WALL**, executives of the *world's leading GPs*,  **Combinator** and , and proudly serve *market-leading GPs, Fortune 500 tenants* and major *LPs*.