



CampusEnergy2024

BRIDGE TO THE FUTURE

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Hilton San Francisco Union Square | San Francisco, CA



ENERGYCAP®

Carbon Accounting 101



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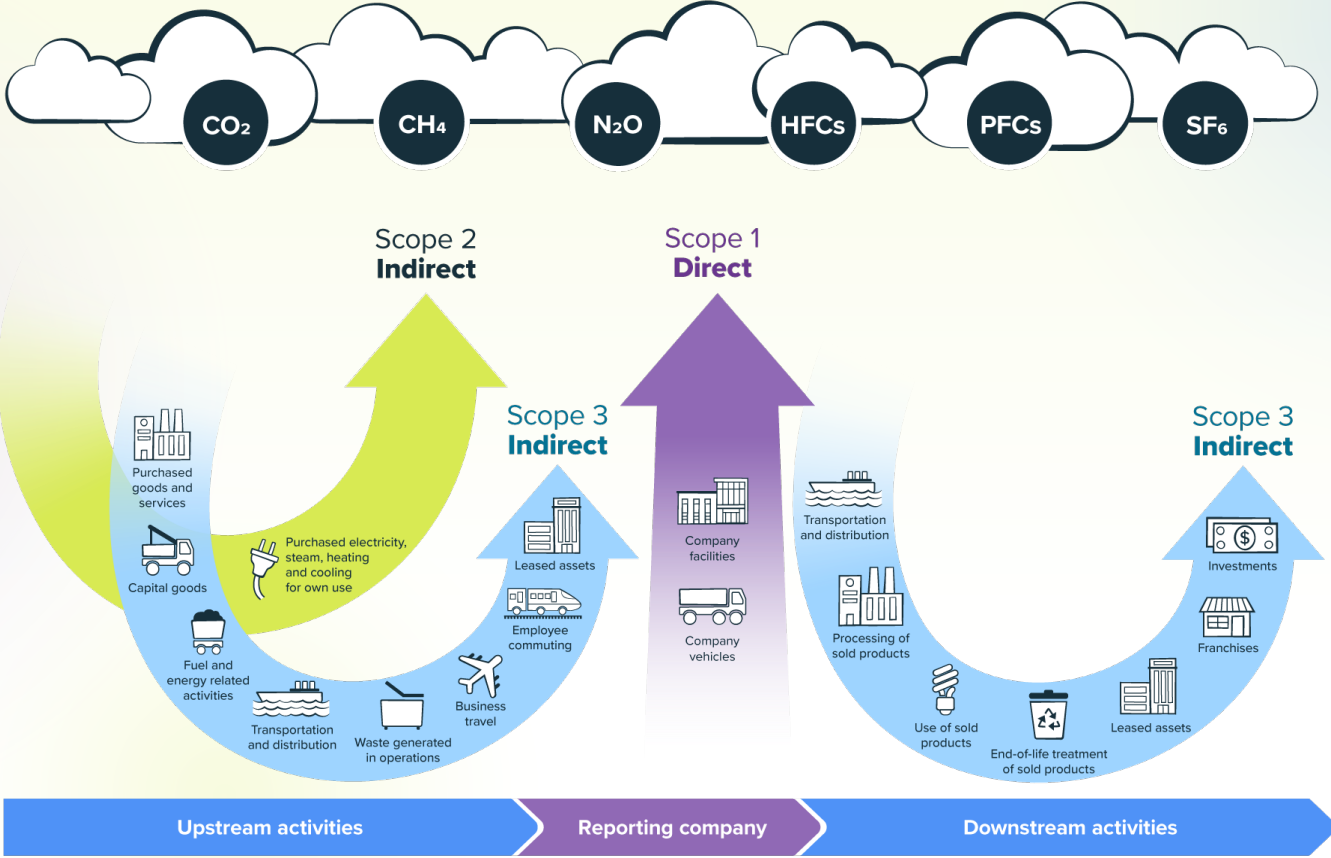


Agenda

- What is carbon accounting?
- Why does it matter?
- Exploring the journey to decarbonization
- Energy & Sustainability ERP
- IDEA Carbon Count
- Q&A

What is carbon accounting?

What is carbon accounting?



Why does it matter?

Regulations // Local Law 97 NYC

- Passed in April 2019
- Buildings over 25k sq ft (Effective 2024)
 - Energy efficiency requirement
 - GHG emissions limits
- Stricter limits coming into effect in 2030
- Reduce emissions from the largest buildings
 - by 40 percent by 2030
 - By 80 percent by 2030
- Established **Local Law 97 Advisory Board and Climate Working Groups** on how to meet these aggressive goals.

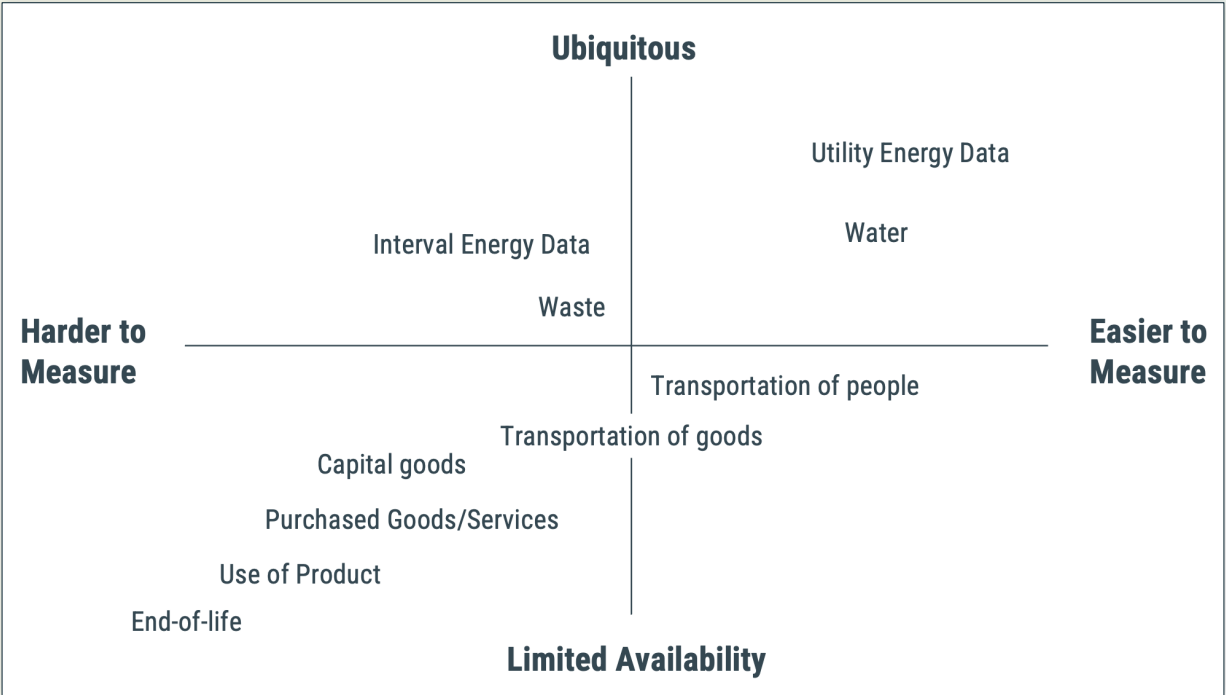
Regulation - State of Washington

- Washington ***Climate Commitment Act*** (CCA) - 2021
 - Reduce emissions by 45% below 1990 levels by 2030
 - Continue reduction to net-zero by 2050
- Businesses that produce more than 25k metric tons of CO₂e annually
 - Fuel suppliers
 - Natural Gas and Electric Utilities
 - Waste-to-energy facilities (starting in 2027)
 - Railroads (starting in 2031)
- Cap & Invest - market-based program - limit on total emissions
- Every business impacted or participating in Cap & Invest needs to report emissions

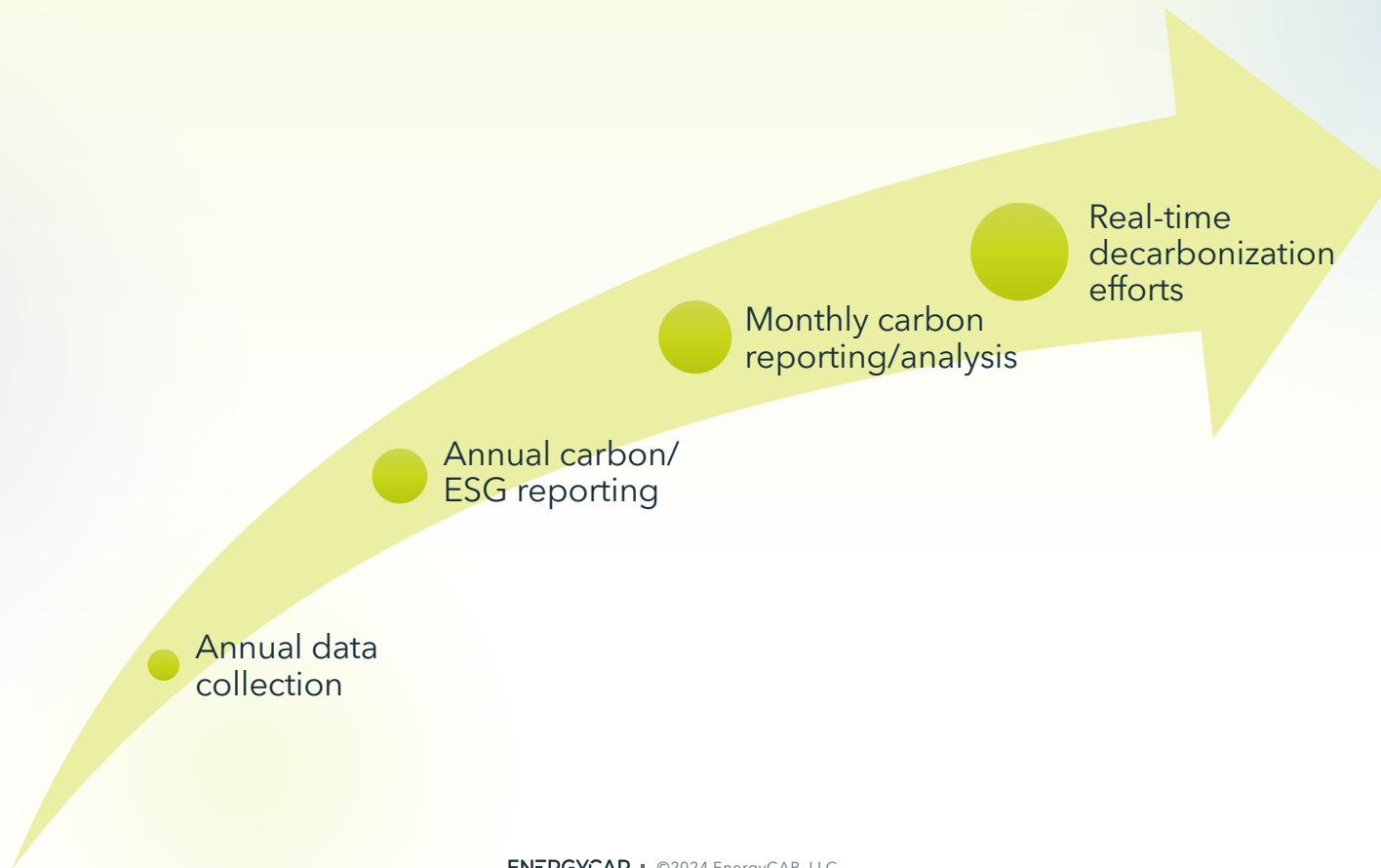
Journey to decarbonization

Getting started

Identify and collect data that supports your organization's goals and reporting needs.

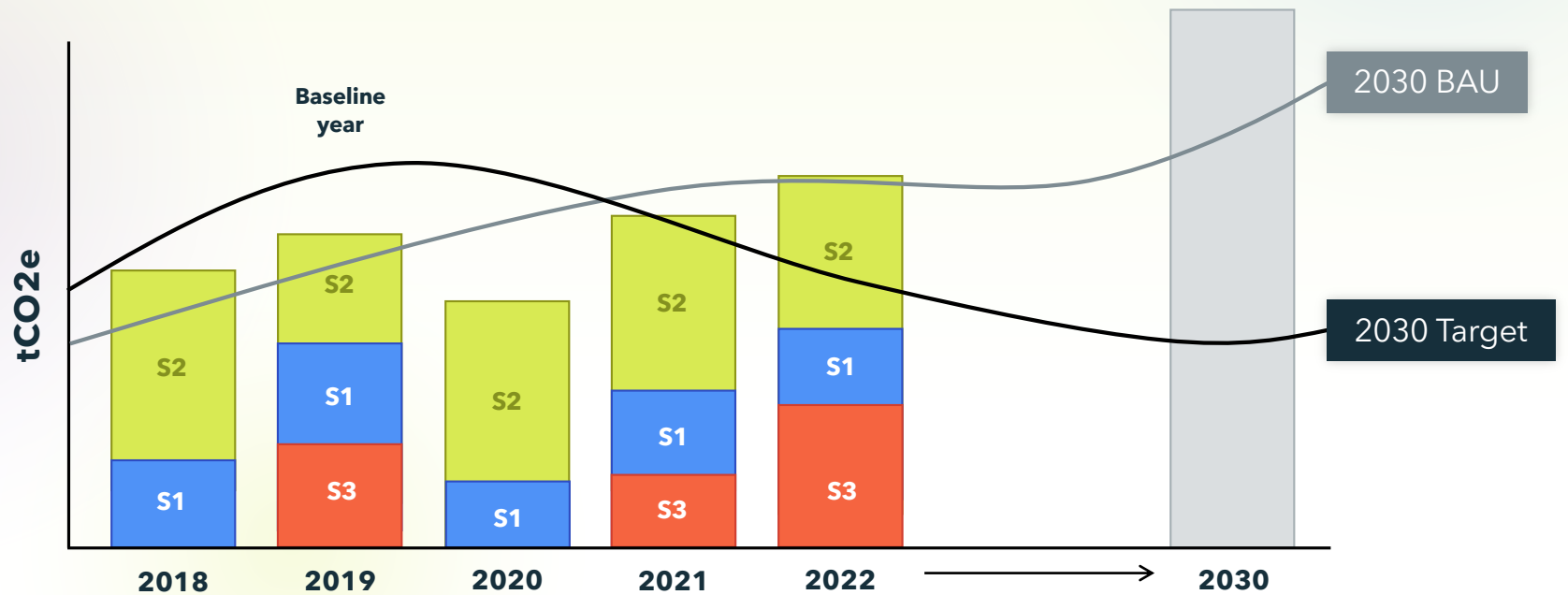


The Decarbonization Data Journey



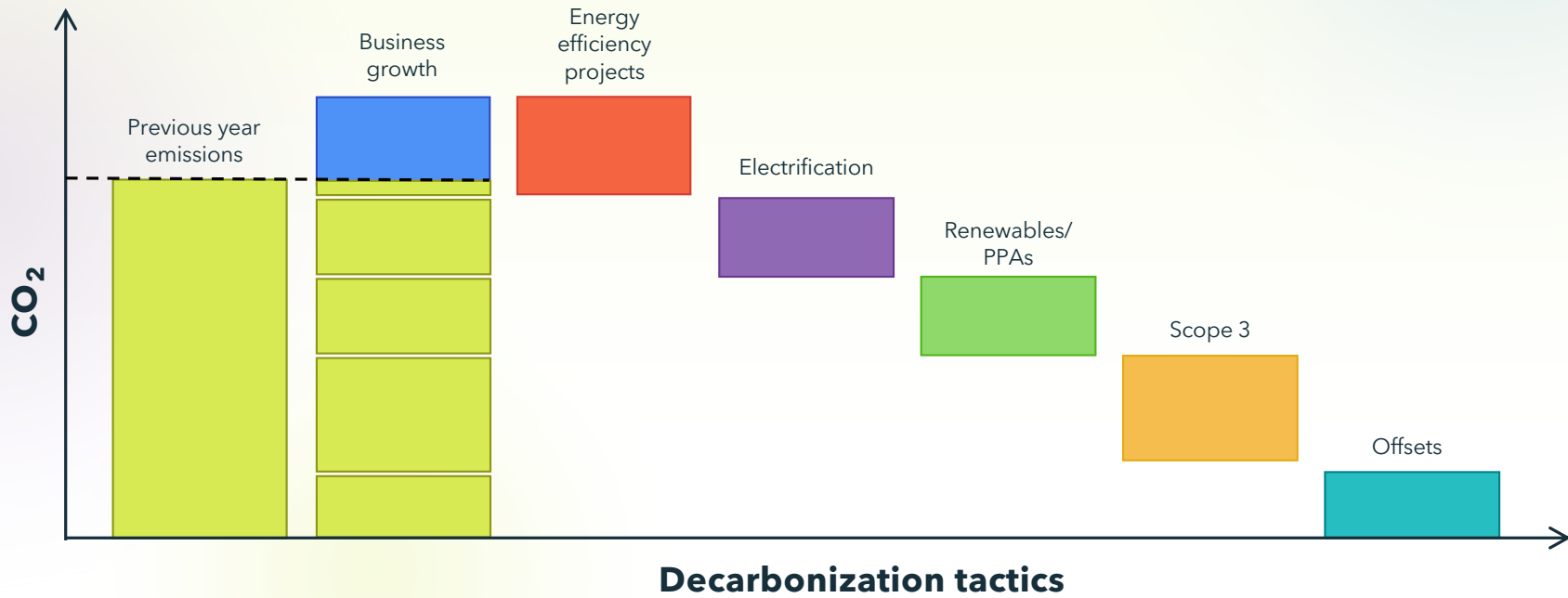
Journey to decarbonization

Once you are able to report on annual emissions and establish targets, you should assume emissions increases with business growth



Journey to decarbonization

There are a multitude of tactics to decarbonize your operations



Energy and sustainability ERP

Evolution from spreadsheets to ERP software // Carbon accounting

The status quo

Manual utility bills, meter reads, data collation in spreadsheets

Automatically captures data

Auditable, financial-grade

Real-time updates

Reduces/eliminates manual labor

Reduces error

Better collaboration

Scalable, reportable, and reliable

Proactive: Monitor and respond in real time

Using software

Energy and sustainability ERP

Occurs annually

Difficult to access data

Manual labor

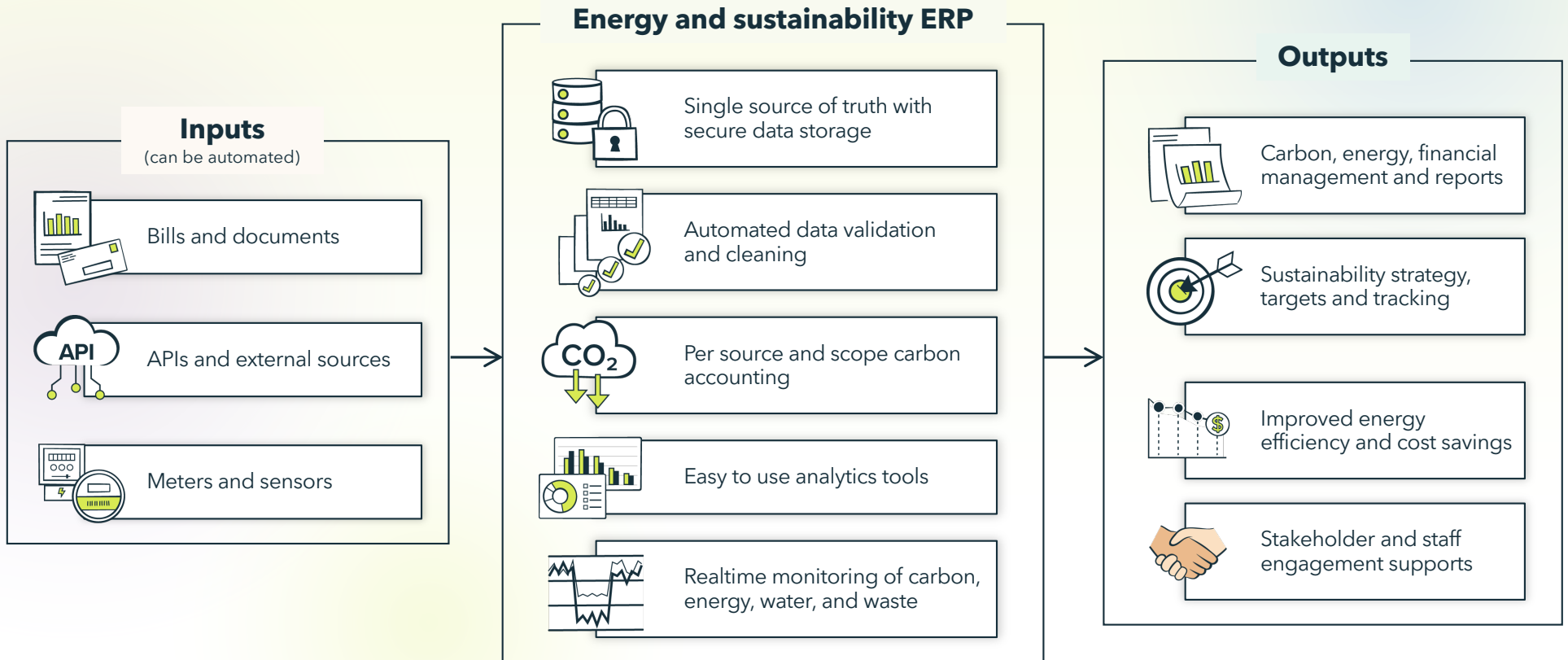
Hard to maintain and update

High chance of error

Data silos

Reactive reporting

Use an energy and sustainability ERP to streamline carbon accounting



Scope 3 Calculation: Practical Guidance



<https://www.epa.gov/climateleadership/scope-3-inventory-guidance>

Scope 3 calculation method improved and boundary expanded over time

Categories	Year 1	Year 2	Year 3	Year 4	Year 5
1	Not Relevant	Average method	Average method	Specific method	Specific method
2	Not Relevant	Average method	Average method	Specific method	Specific method
3	Specific method	Specific method	Specific method	Specific method	Specific method
4	Specific method	Specific method	Specific method	Specific method	Specific method
5	Average method	Average method	Average method	Average method	Average method
6	Average method	Specific method	Specific method	Specific method	Specific method
7	Average method	Average method	Average method	Average method	Average method
8	Not Relevant	Specific method	Specific method	Specific method	Specific method
9	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
10	Not Relevant	Not Relevant	Average method	Average method	Average method
11	Not Relevant	Not Relevant	Average method	Average method	Average method
12	Not Relevant	Not Relevant	Not Relevant	Average method	Average method
13	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
14	Not Relevant	Not Relevant	Not Relevant	Not Relevant	Not Relevant
15	Not Relevant	Not Relevant	Average method	Average method	Specific method

Specific method (e.g. supplier-specific method, fuel based method)
Average method (e.g. average-data method, spend-based method)
Lack of data, cannot report
Not Relevant

<https://www.epa.gov/climateleadership/scope-3-inventory-guidance>

IDEA Carbon Count

IDEA Carbon Count

- Catalogue IDEA member decarbonization strategies
- Demonstrate carbon reduction solutions through aggregation of connected buildings
- Plot industry wide decarbonization over time
- Establish methodology for comparing district energy decarbonization to local electric grids and on behalf of connected customers
- Develop a toolkit for educating customers and policy makers on the decarbonization potential and progress of district energy systems



IDEA Carbon Count Phase 1: Manual Accounting

Organization: _____																						
provided by: _____																						
Name: _____																						
Title: _____																						
Email: _____																						
Telephone: _____																						
													2022									
City	State/Province	Country	System	Please describe your customer base (residential, healthcare, or a combination)	Service	Reporting Standard (please include a link)	Reporting Cycle (e.g. Jan 1-Dec 31)	Total Customer Floor Area Served (sf)	Annual Energy Sales (2022)	Annual Energy Sales (2021)	Units	Notes	SCOPE 1 Carbon Emissions (tonnes/yr)	SCOPE 2 Carbon Emissions (tonnes/yr)	Carbon Emissions Avoided with REC purchases	Carbon Intensity of Energy Service	Units	Optional: Please list specific or strategic and low-carbon resources deployed this year to achieve these results	SCOPE 1 Carbon Emissions	SCOPE 2 Carbon Emissions	Carbon Emissions Avoided REC purchases	
New York	Suburbium	Canada	DES Inc.	Mixed residential and commercial	Heating	WRI GHG Protocol	Jan 1-Dec 31	1,000,000	100,000	100,000	MWh/yr	Private allocation based on metered end-use fuel and power from OGP	20,000			200	kg/yr/ft ²		20,000		0	
					Cooling	WRI GHG Protocol	Jan 1-Dec 31	1,000,000	100,000	100,000	MWh/yr		0	10,000		100	kg/yr/ft ²		0	10,000	0	
					Power	WRI GHG Protocol	Jan 1-Dec 31	1,000,000	50,000	50,000	MWh/yr	Private allocation based on metered end-use fuel and power from OGP	10,000			200	kg/yr/ft ²		10,000		0	
1	2	3	4	5	6	7	8	9	10	11	12	13										

Pros

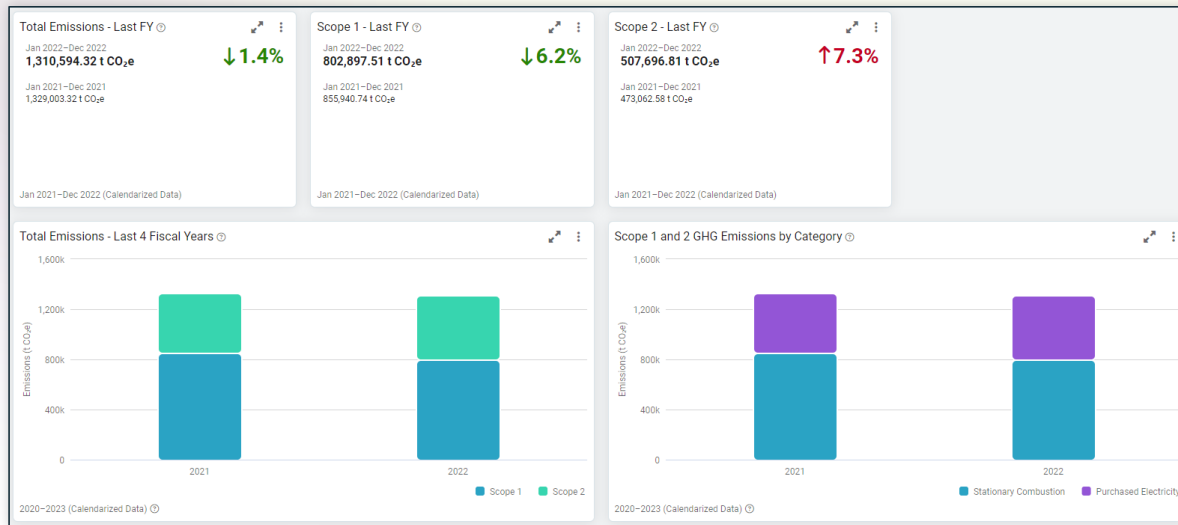
- ✓ Flexibility for systems with established carbon accounting programs
- ✓ Easy to develop and access
- ✓ Collected decarbonization strategies

Cons

- Required existing carbon accounting knowledge
- Produced results that couldn't easily be compared
- If scaled up would become too complex to manually analyze

IDEA Carbon Count Phase 2: Carbon Accounting System Implementation

- ✓ Maintains flexibility for systems with established carbon accounting procedures
- ✓ Does not require accounting background, participating systems can submit simple commodity quantities
- ✓ Allows program managers to convert between accounting protocols
- ✓ Scalable



**2024 Submissions
due April 12th!**



Thank you!