Utility Data: The Foundation of Sustainability

CATALYST

Agenda

ESG or Sustainability?

Overview of Scope 1, 2, and 3 emissions

The difference between local and market-based emission factors

Why does it matter?

Why utility bills are the foundation for carbon accounting?

Overview of CarbonHub

Q&A

Carbon Accounting 101

ESG vs Sustainability?

ESG is a more focused, shorter-term approach that is primarily concerned with managing financial risks and opportunities related to environmental, social, and governance issues.

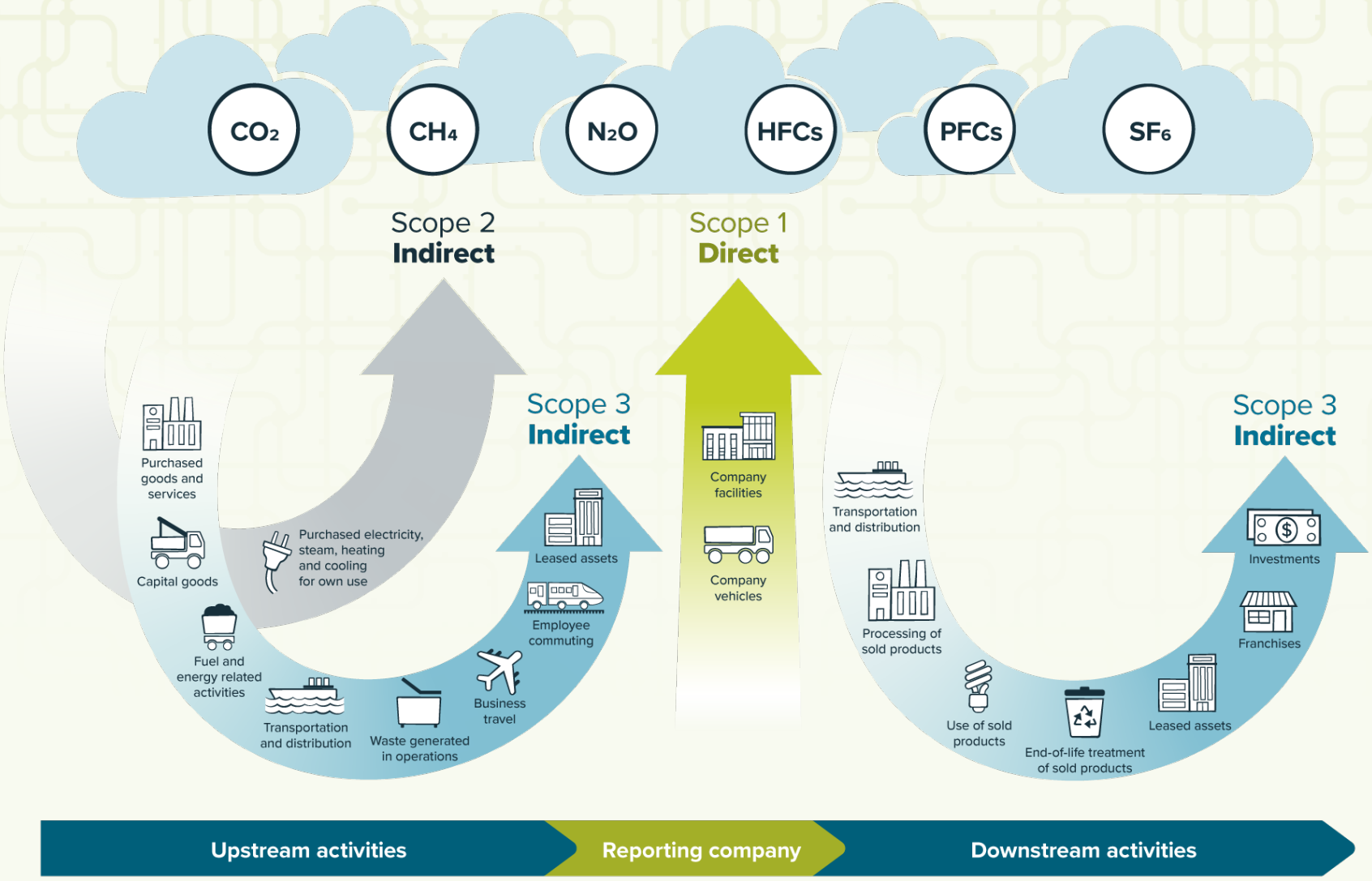
- Carbon accounting
- Diversity and inclusion
- Governance and risk assessments

Sustainability is a broader, longer-term approach that seeks to balance economic, social, and environmental considerations to create enduring value for all stakeholders.

- Carbon
- Water
- Air quality
- Health
- Waste
- Equity

Overview of Scopes 1, 2, & 3

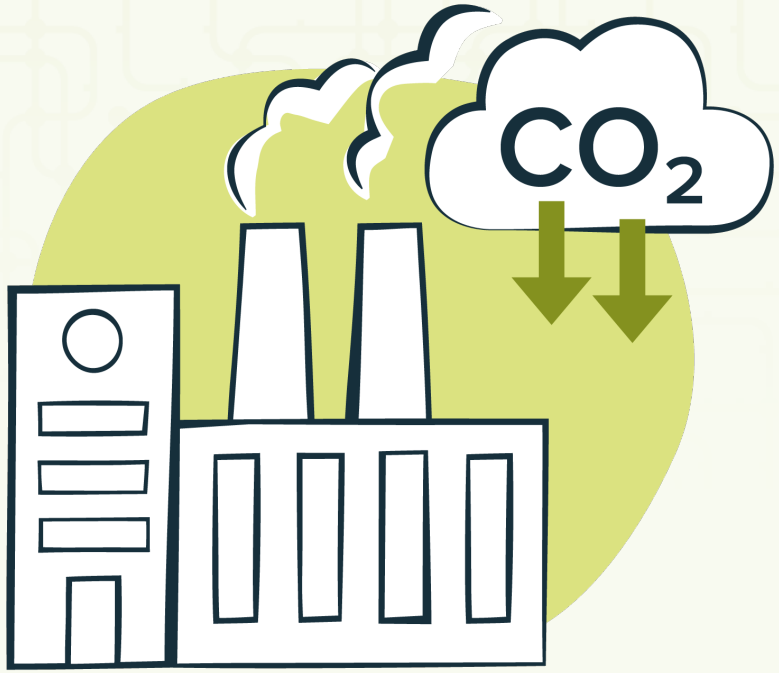
Overview of scope categories and GHG emissions



How do we calculate emissions?

What is an Emission Factor?

An Emission Factor is a representative value that attempts to relate the quantity of a pollutant released to the atmosphere with an activity associated with the release of that pollutant



Local vs Market-Based Emission Factors

Local emissions calculations:

The location-based method reveals what the company is physically putting into the air, and the market-based approach shows emissions the company is responsible for through its purchasing decisions, such as a renewable energy contract.

The **location-based** or **place-based method** calculates the emissions from electricity use based on the average emission intensity of the power grid you're using.

Market-based emissions calculations:

A **market-based method** calculates the emissions from the electricity you purchase.

The market-based method is intended to support the use and reporting of green energy tariffs via Renewable Energy Certificates (REC) and Guarantees of Origin (REGO).

Make it tangible…

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

EPA United States Environmental Protection Agency

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Energy and the Environment

Greenhouse Gas Equivalencies Calculator

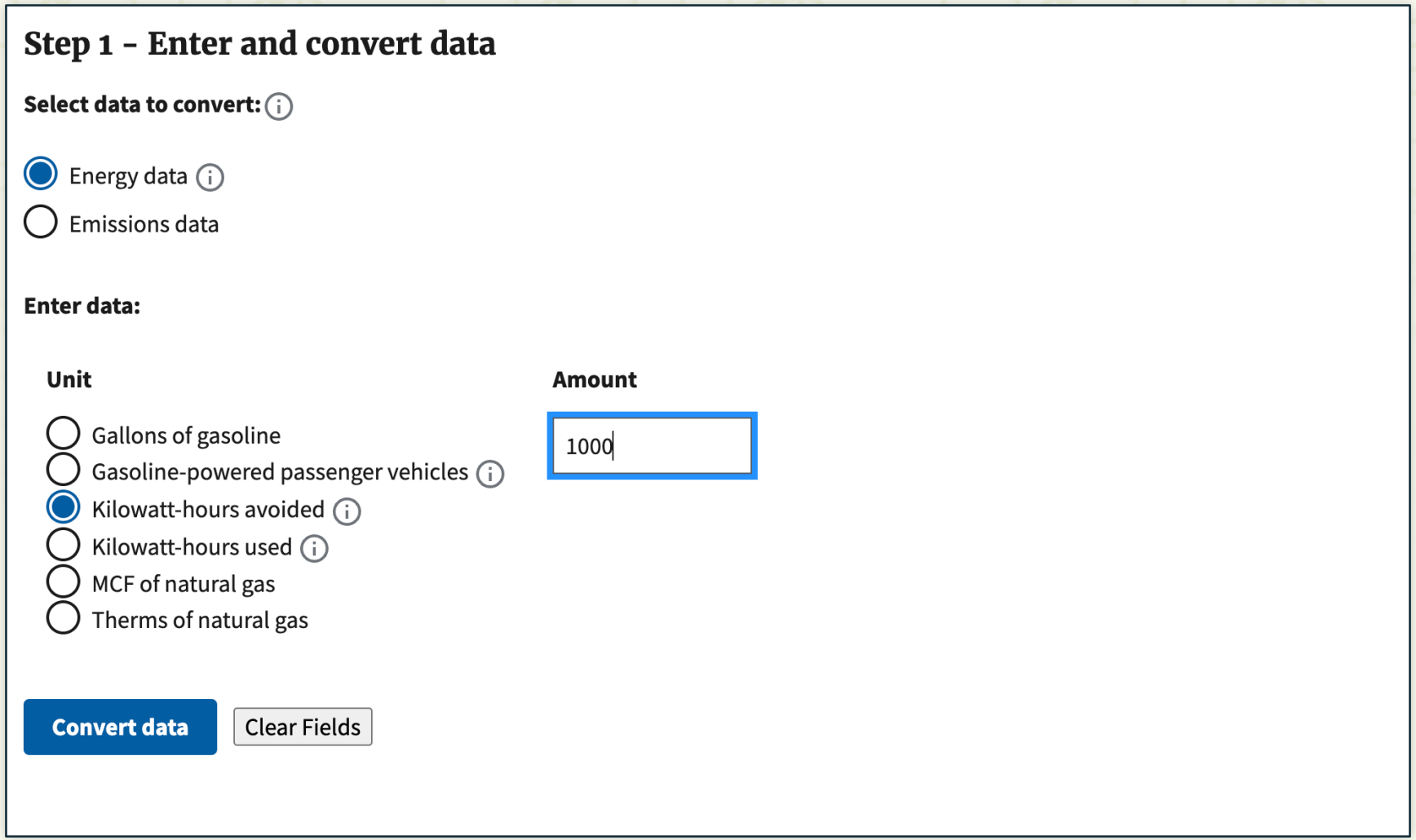
Convert emissions or energy data into concrete terms you can understand — such as the annual CO_2 emissions of cars, households, and power plants.

The Greenhouse Gas Equivalencies calculator allows you to **convert emissions or energy data to the equivalent amount of carbon dioxide (CO_2) emissions from using that amount**. The calculator helps you translate abstract measurements into concrete terms you can understand, such as the annual emissions from cars, households, or power plants. This calculator may be useful in communicating your greenhouse gas reduction strategy, reduction targets, or other initiatives aimed at reducing greenhouse gas emissions.

Updated April 2023

Make it tangible...

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results



Make it tangible...

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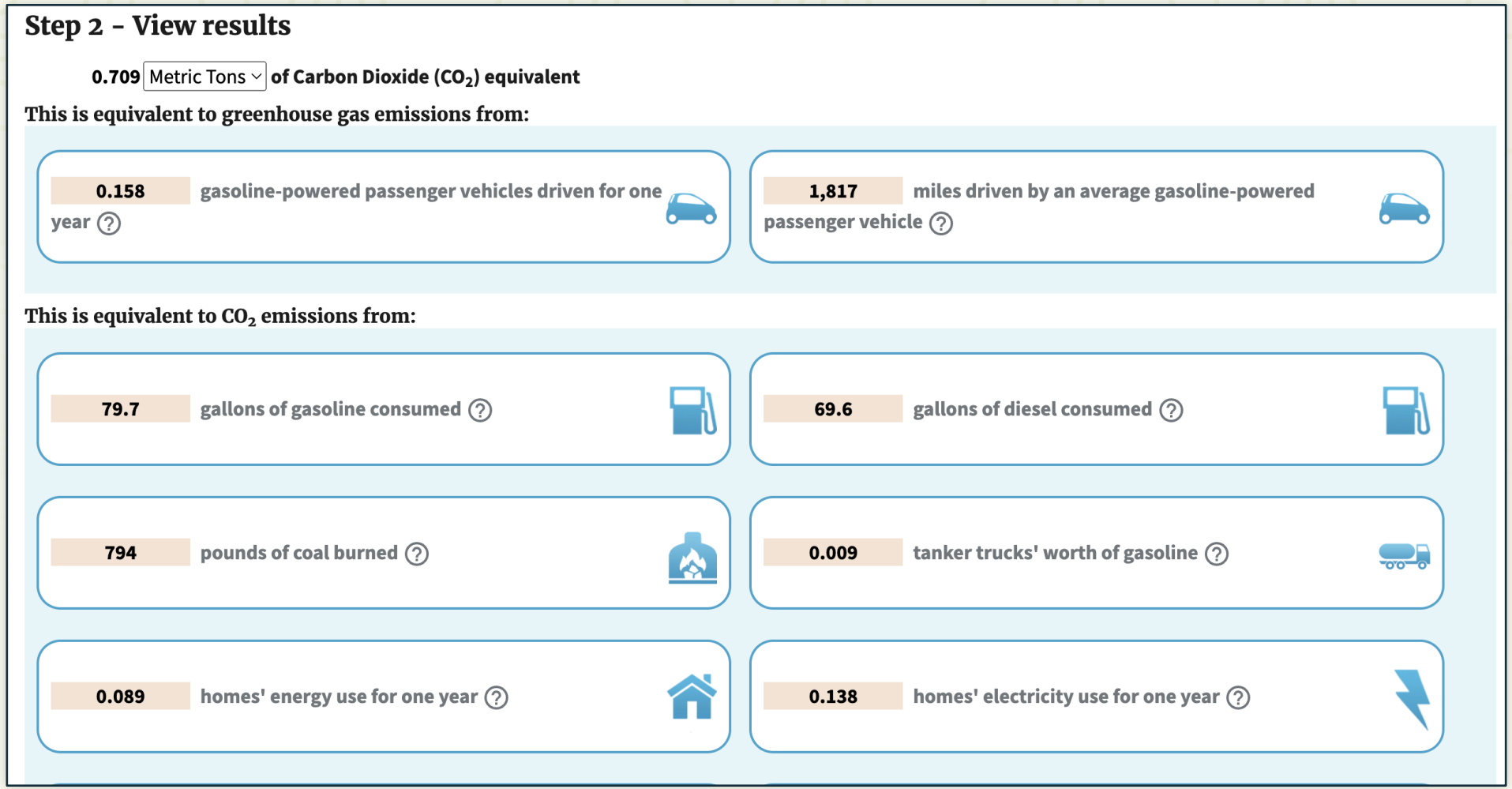


Step 2 – View results

0.709 Metric Tons **of Carbon Dioxide (CO_2) equivalent**

This is equivalent to greenhouse gas emissions from:

0.158 gasoline-powered passenger vehicles driven for one year	**1,817** miles driven by an average gasoline-powered passenger vehicle

This is equivalent to CO_2 emissions from:

79.7 gallons of gasoline consumed	**69.6** gallons of diesel consumed
794 pounds of coal burned	**0.009** tanker trucks' worth of gasoline
0.089 homes' energy use for one year	**0.138** homes' electricity use for one year

Make it tangible...

https://www.epa.gov/energy/greenhouse-gas-equivalencies-calculator#results

This is equivalent to greenhouse gas emissions avoided by:

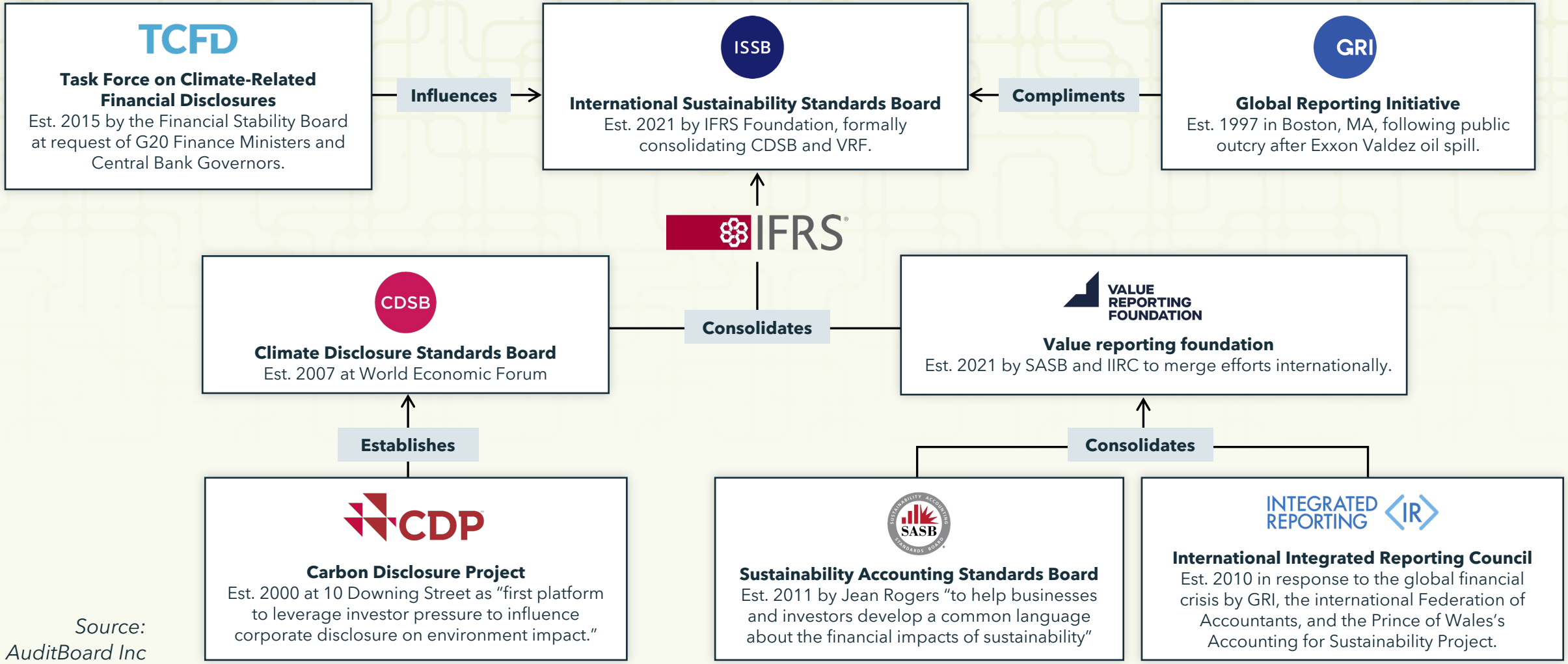
- **0.245** tons of waste recycled instead of landfilled
- **0.035** garbage trucks of waste recycled instead of landfilled
- **30.7** trash bags of waste recycled instead of landfilled
- **0.0002** wind turbines running for a year
- **26.9** incandescent lamps switched to LEDs

This is equivalent to carbon sequestered by:

- **11.7** tree seedlings grown for 10 years
- **0.845** acres of U.S. forests in one year
- **0.005** acres of U.S. forests preserved from conversion to cropland in one year

Why does it matter?

Reporting frameworks require finance-grade reporting and continue to evolve



Source: AuditBoard Inc

SEC proposed climate-related disclosures rule

The SEC's climate-related disclosure rule would require companies to disclose material climate risks, including emissions data and transition plans.

What companies would have to disclose[1]

Material impacts

How climate can impact companies' bottom lines—in the short, medium, and long term—and what governance, strategy, and risk-management processes will address these impacts.

Greenhouse-gas emissions

Audited scopes 1 and 2 emissions and scope 3 emissions, if material (or if the entity has a scope 3 target), as well as safe harbor for liability from scope 3 emissions.

Target and transition plans

If available, climate-related targets or goals, accompanied by detailed transition plans, scenario analysis methods, internal carbon pricing, and how it is set, and the use of offsets and renewable-energy certificates.

[1]This chart is a summary for general information only and does not constitute legal or regulatory advice. Advice of appropriate counsel must be sought prior to any consideration of the issues raised herein.
Source: US Securities and Exchange Commission (SEC) enhancement and standardization of climate-related disclosures, March 2022

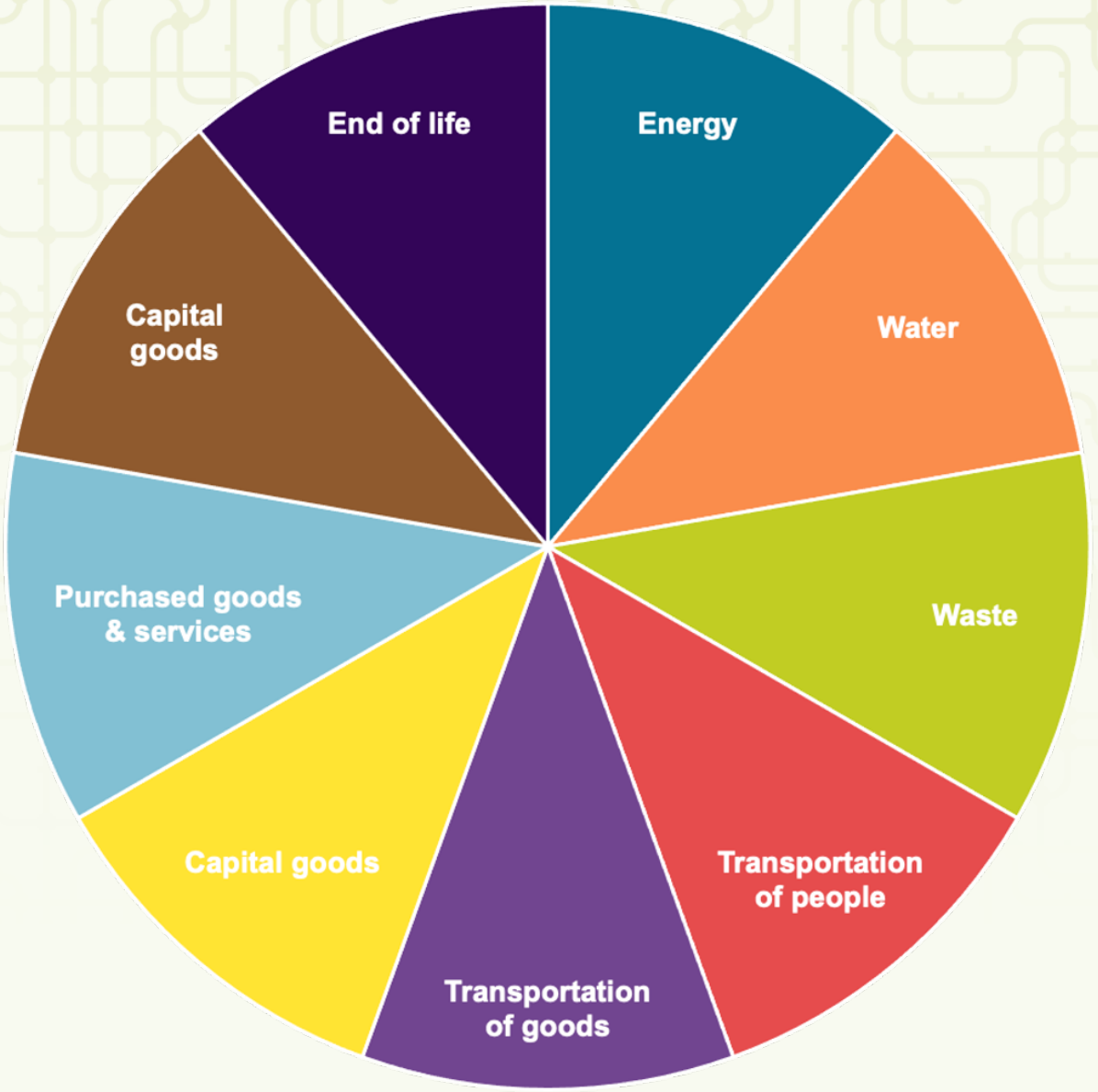
McKinsey & Company

Even companies without sustainability goals will need to support carbon reporting requirements of their supply chain.

Why utility bills are a GREAT place to start

Sustainability considerations

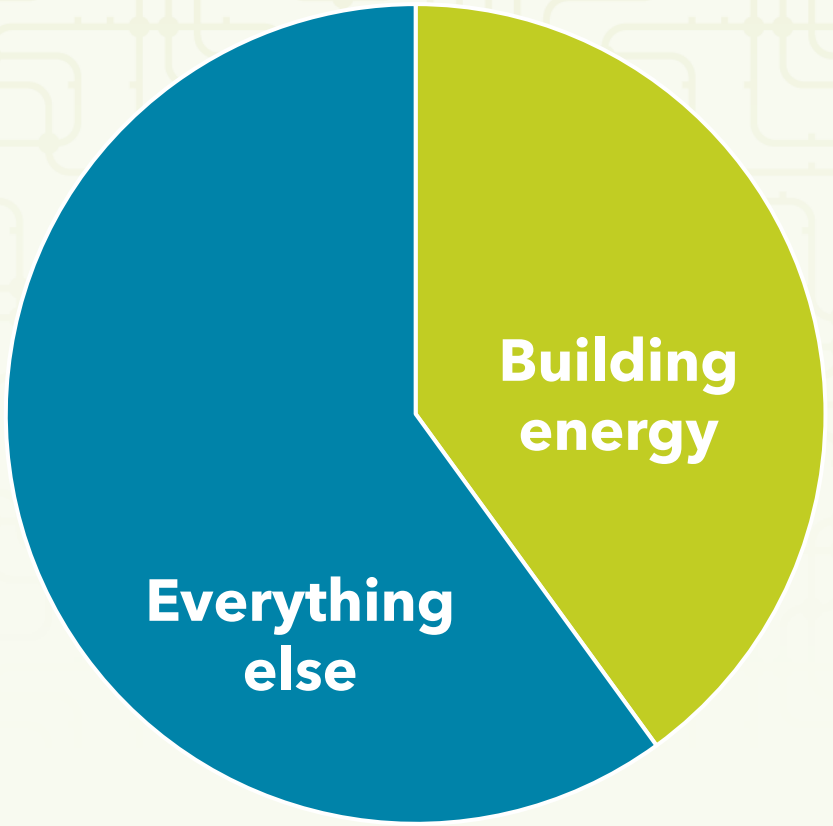
Are things equal?



Utility bill data is key to reducing carbon emissions

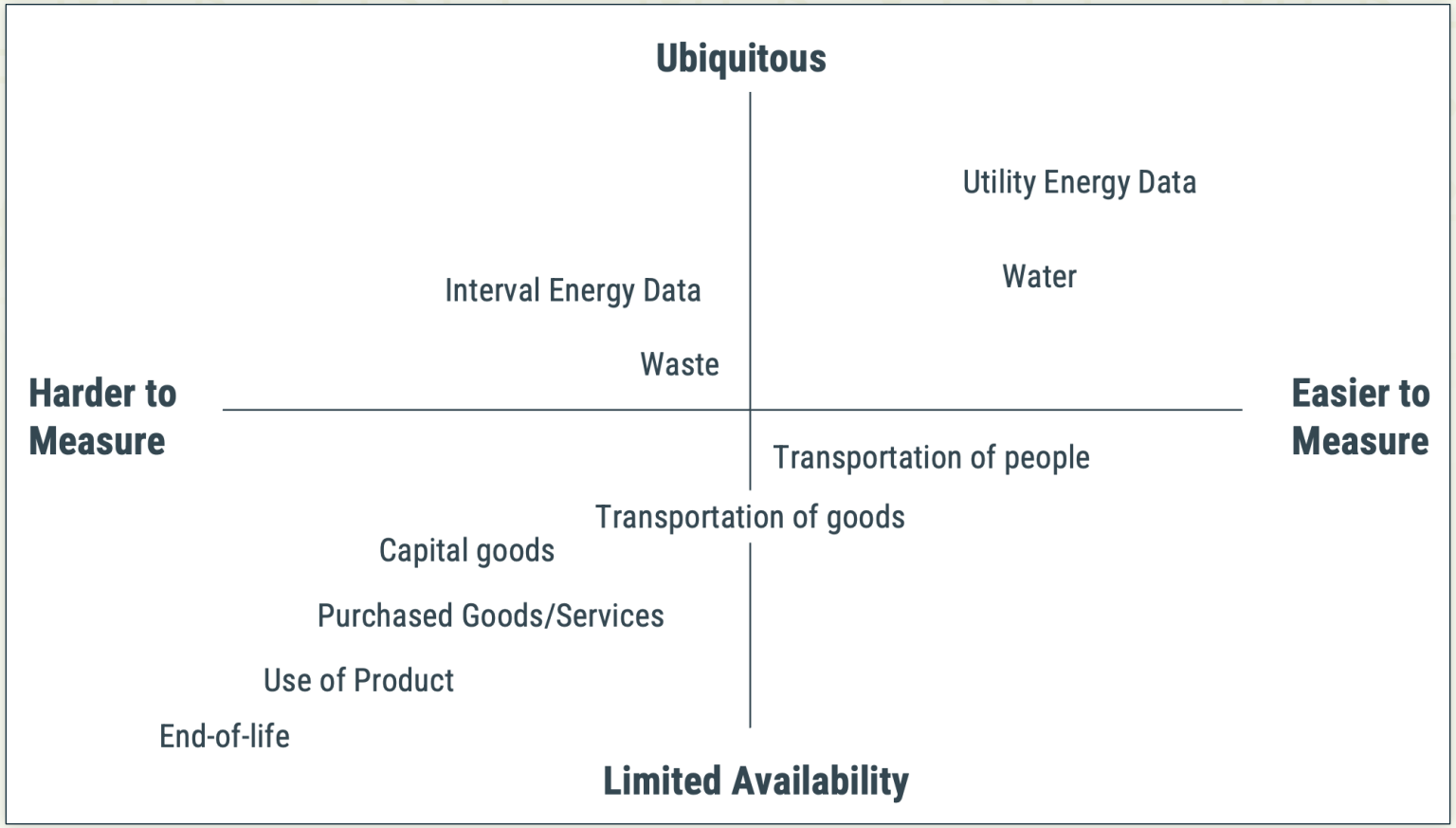
"40% of global greenhouse gas (GHG) emissions come from buildings and, if left unchecked, they're set to double by 2050."

-The Climate Group



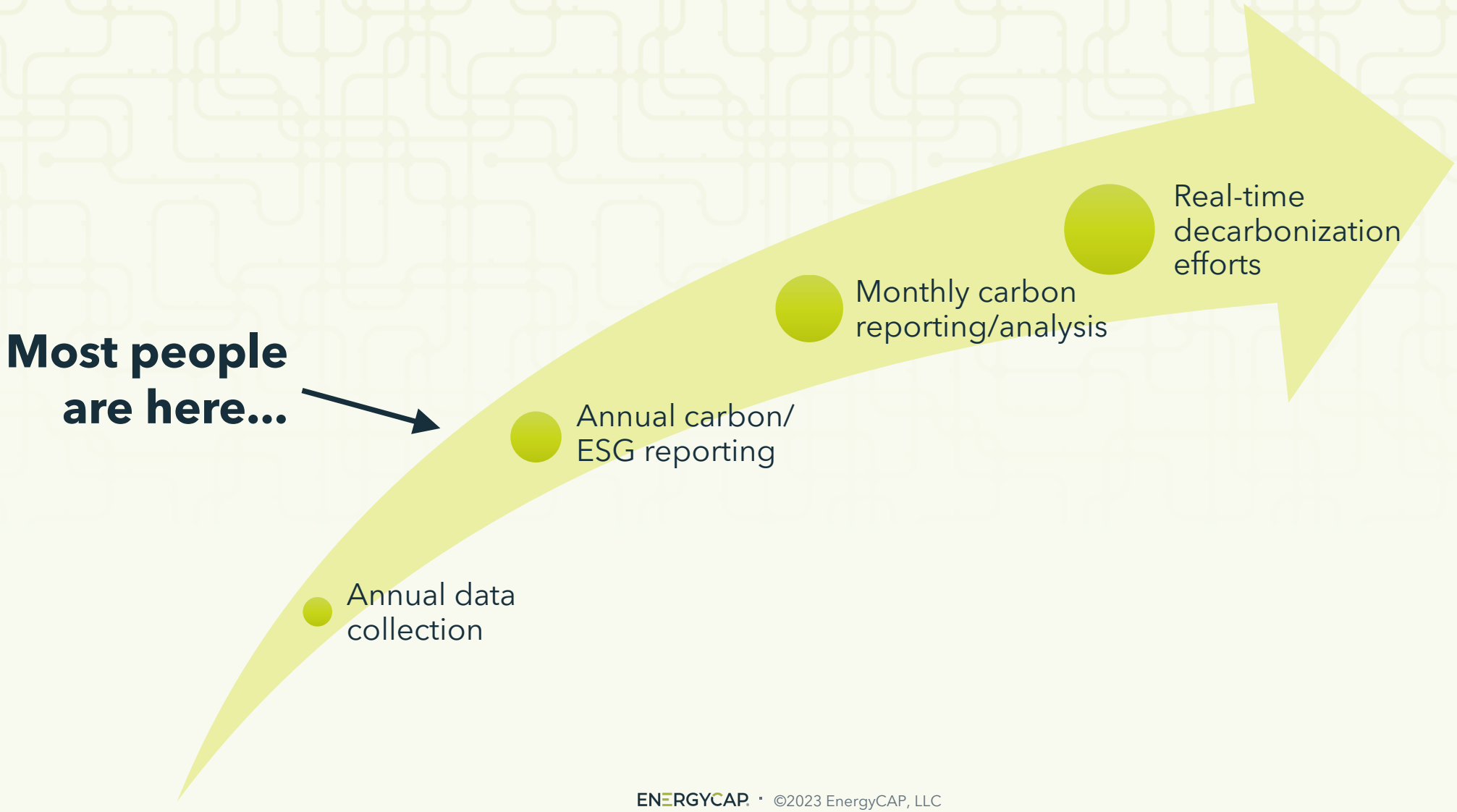
Utility data is a great place to start!

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



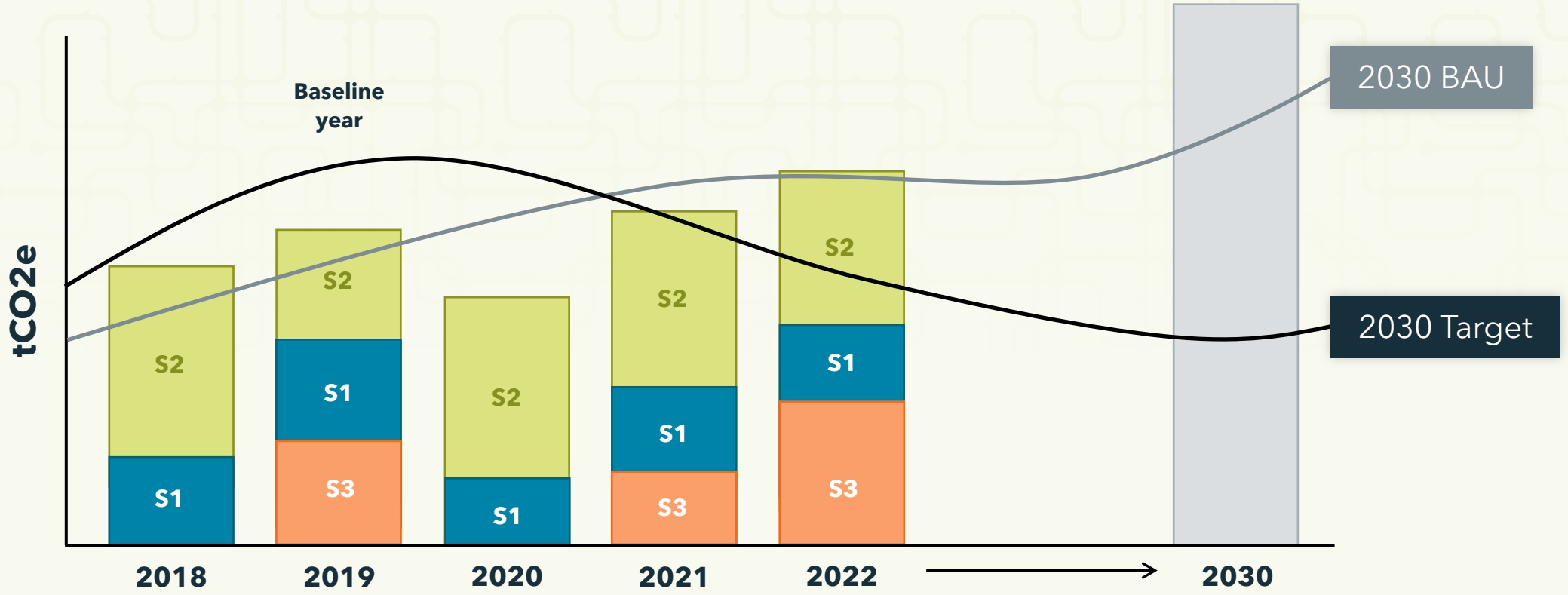
Taking it to the next level... Decarbonization!

The Decarbonization Data Journey



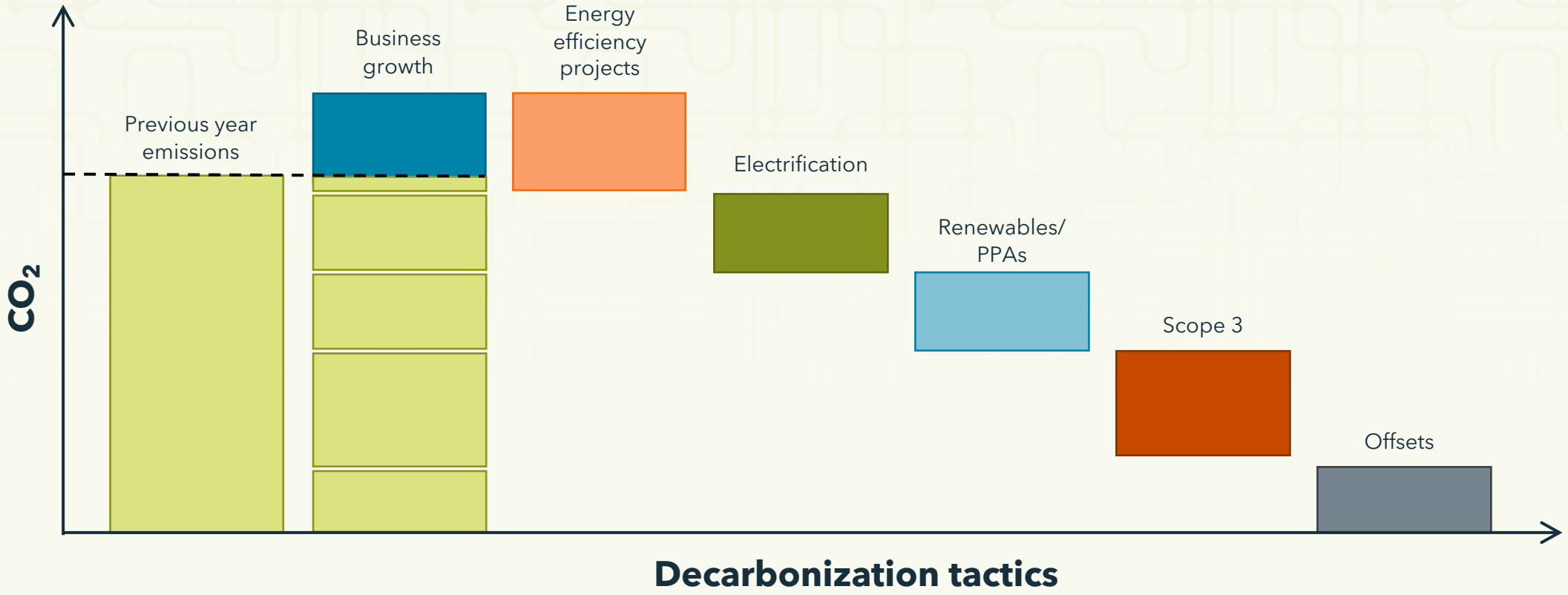
Journey to decarbonization

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



Overview CarbonHub

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.

CARBONHUB® An EnergyCAP Solution

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

ENERGYCAP®

Portfolio-level energy & 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

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

CAPture Services: Bill CAPture, Bill Processing/Managed Services

CARBONHUB®

An EnergyCAP Solution

Demo

Expanding EnergyCAP's energy and sustainability ERP capabilities

Q&A