

Deep Dive: Hands on with CarbonHub

CATALYST 





Session Agenda

Carbon/greenhouse gas tracking - a quick primer

Where do you start?

Scope 1 and 2 tracking

Options/approaches for Scope 3 reporting

EnergyCAP corporate case study

CarbonHub reporting

CarbonHub facts

Q&A

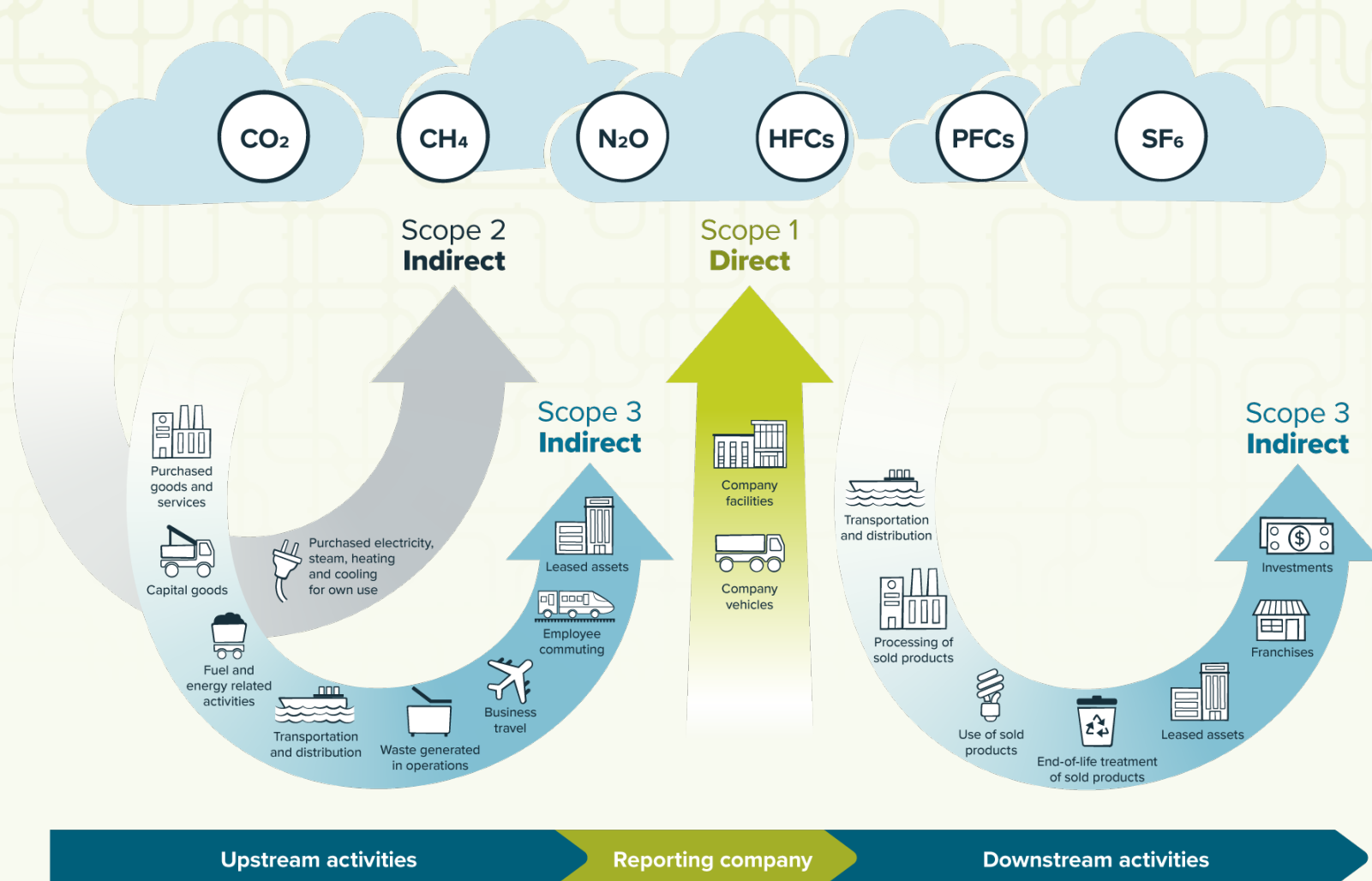
Fundamentals of GHG

Greenhouse Gas Protocol

- Global standardized framework to measure and manage greenhouse gas (GHG) emissions
- Provides standards, guidance, tools and training for businesses and governments to measure and manage climate-warming emissions
- 20-year partnership between:
 - World Resource Institute (WRI)
 - World Business Council for Sustainability Development (WBCSD)
 - Various governments, industry associations, NGOs, businesses etc.

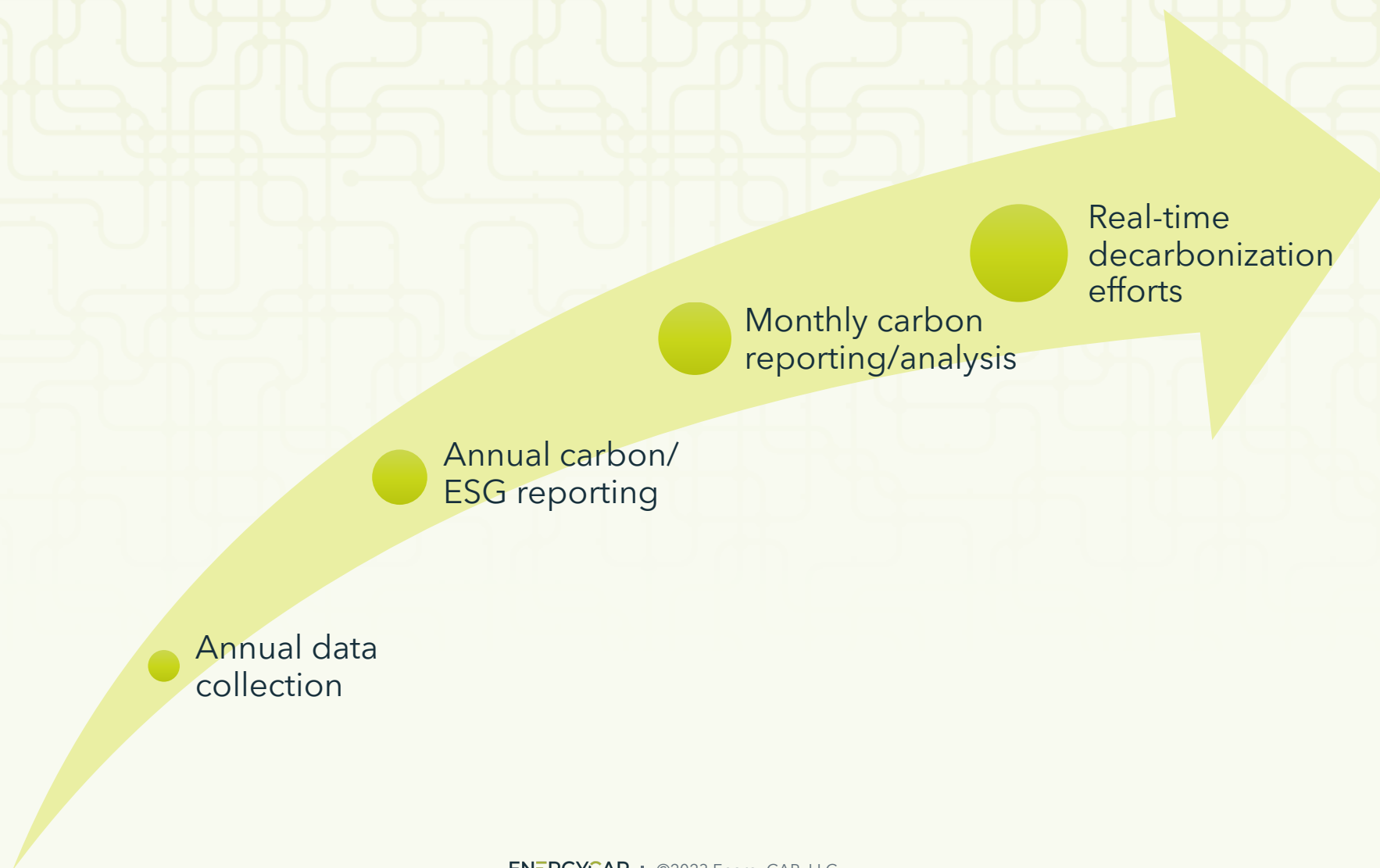
<https://ghgprotocol.org>

GHG Scopes - What are scope 1, 2, and 3?



Where do you start?

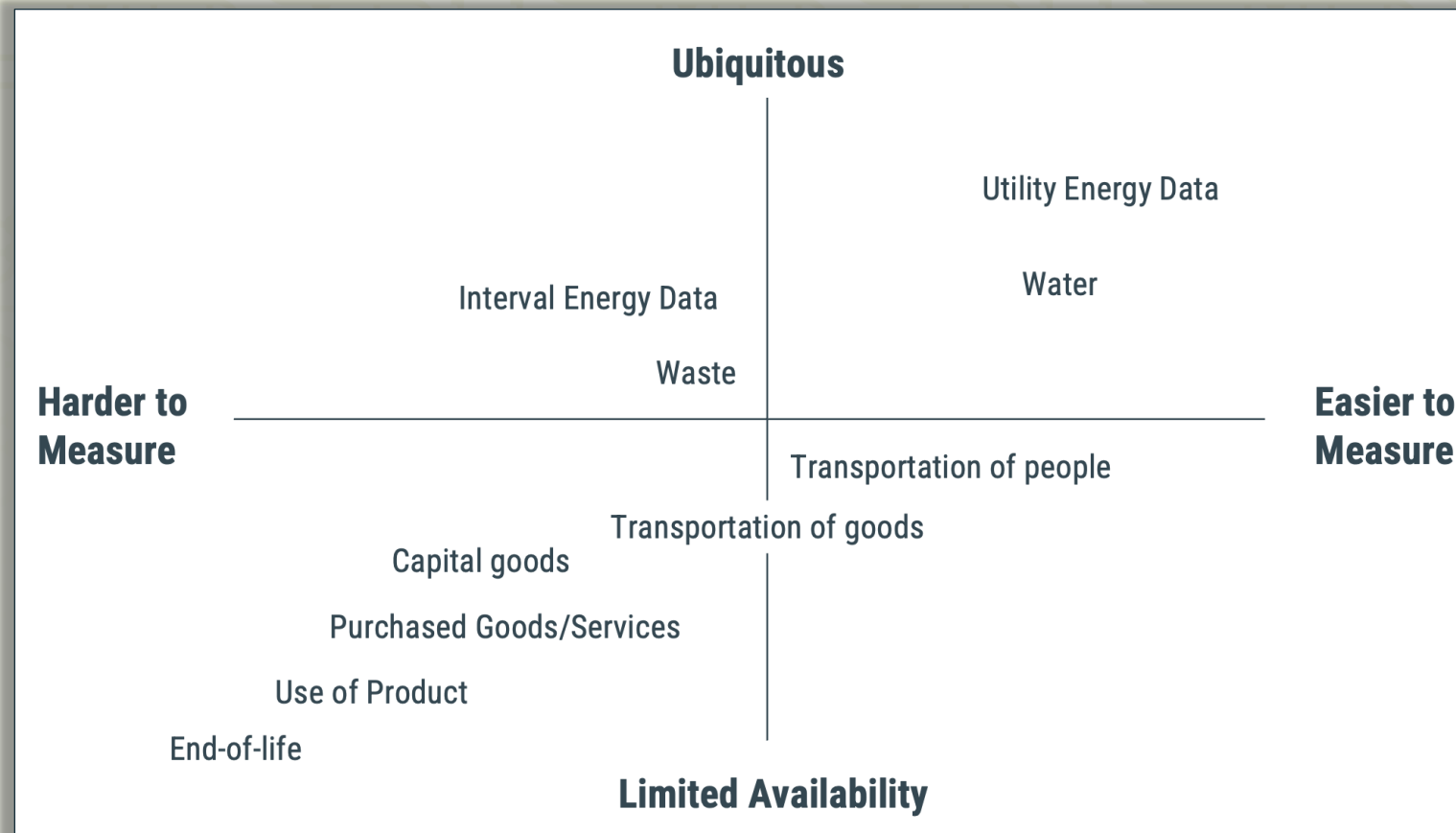
The Decarbonization Data Journey



Where are your organizations?
Who is responsible for next steps?

Getting started

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



Getting Started: Start with the easy “stuff”

Tracking Scope 1 and 2 Emissions:

Use the data you’re already receiving on **utility bills** (dates, usage)

Make sure you’re getting **all the data** – accurate use information is critical

Map purchased utilities to appropriate **GHG factors**

Published EPA/IPCC values for raw fuels

EPA eGrid factors

Other published domestic/international factors

Factors from suppliers/vendors

Custom mix for your organization

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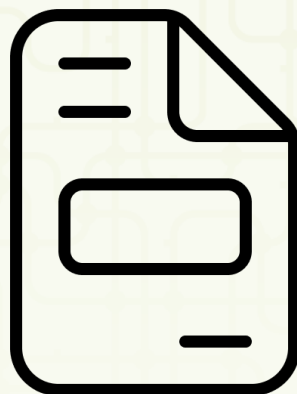
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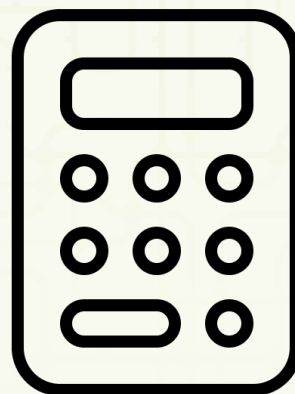
Calculating GHG Emissions from Utility Bills

Bill



500 kWh

System and
Custom Factors



0.297344
kg CO₂e
per kWh

×

=

Emissions



148.672
kg CO₂e

Converting Scope 1 and 2 to CO₂ e with CarbonHub

Setup **default factors** for commodities where possible

Consider the best GHG conversion factor

Should you use default/providing values?

Do you need to create a **custom factor**?

Do you need to start from scratch with a custom factor or can you copy and modify a provided factor?

Consider how you will need to report on the data – should you use meter groups and/or your hierarchy to help segment data for reporting?

Watch out for possible “gotchas”

How often do your factors change? How will you keep them up-to-date?

CarbonHub provided factors will continue to be maintained/versioned

Which Global Warming Potential values will you use to convert GHG gases to CO₂ e?

CarbonHub allows you to choose (e.g., Assessment Report versions 4, 5, ...)

If you have offsets/PPAs/RECs, do you want to model them into your conversion factors or represent as a separate item? Location-based vs. market-based methods

CarbonHub allows you to separate values for location-based and market-based reporting – choose when you want to report each one

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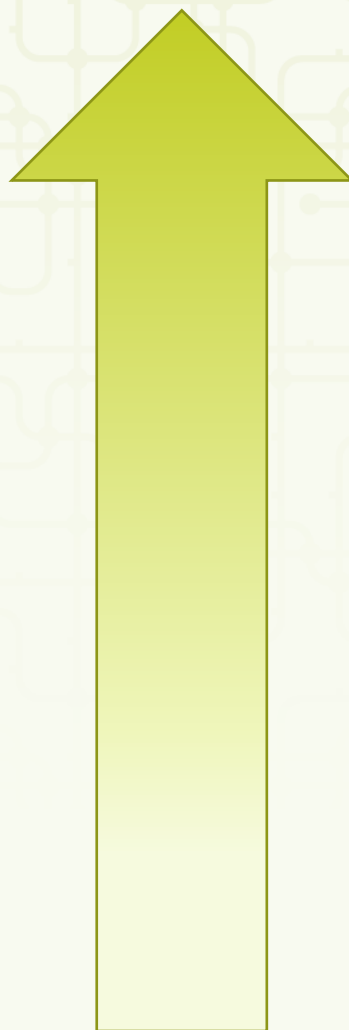
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CarbonHub Demo:

Default factors, custom factors, offsets/RECs

Options for Scope 3 reporting

**Most
Detailed/Accurate**



Detailed GHG values from suppliers/vendors

Actual use/purchase quantities x GHG factors

Estimated use/purchased quantities x GHG factors

**Least
Detailed/Accurate**

Actual spending/cost x spend-based GHG factors

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Not all data types require the same level of detail

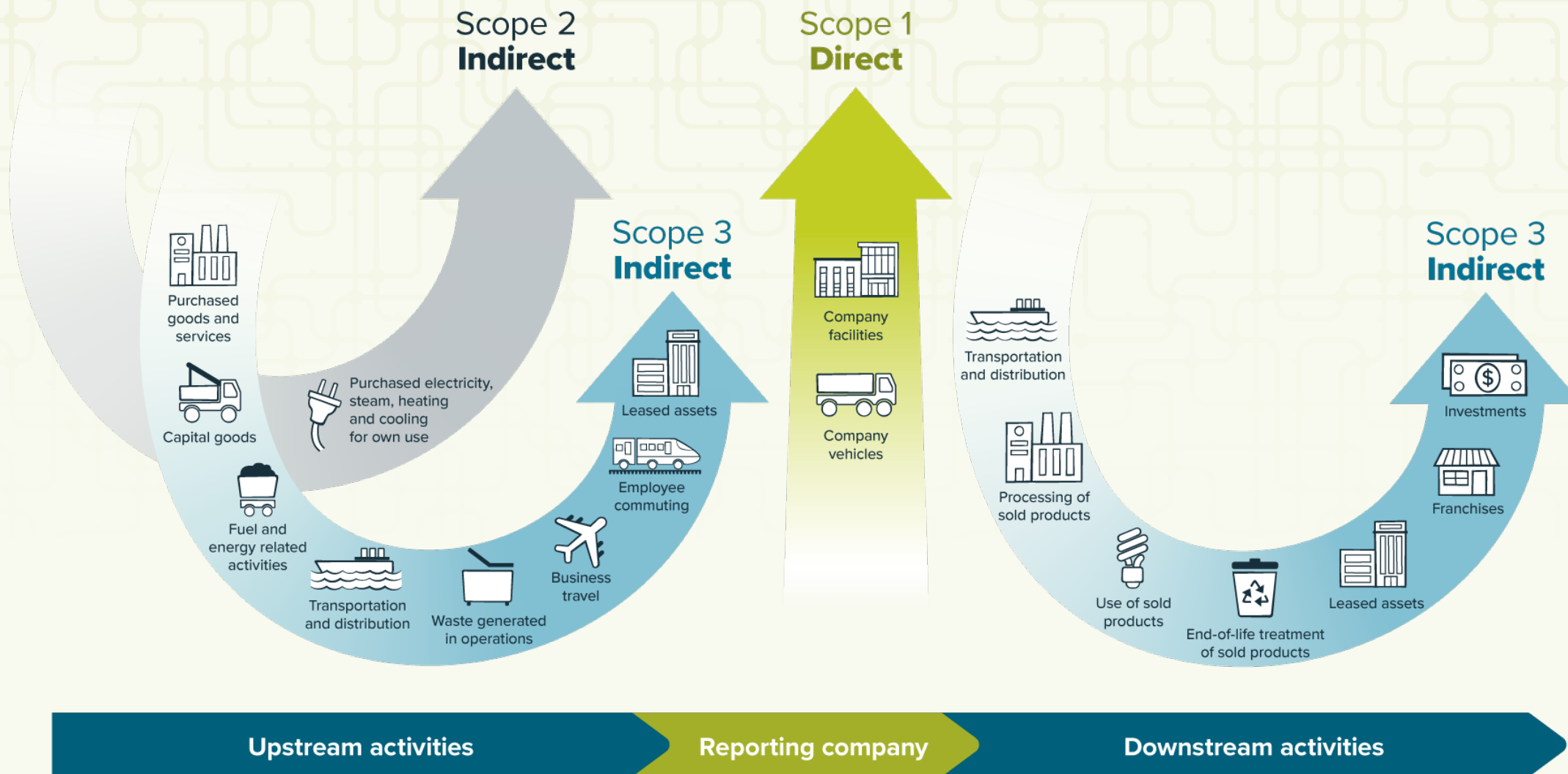
Tracking Scope 3

Consider your impacts

Walk through the Scope 3 categories

Select the ones that apply

Scope 3 Categories



Tracking Scope 3

Consider your impacts

Walk through the Scope 3 categories

Select the ones that apply

Where can you get data?

What data is already available to you?

What data is available within your organization?

What data is available from suppliers/vendors?

Are you missing important data?

Can you use expert judgement, estimates, or similar data?

EnergyCAP Case Study

EnergyCAP Case Study: What to track?

Consider your impacts

Walk through the Scope 3 categories

Select the ones that apply: Purchased good and services, business travel, employee commuting

Where can you get data?

What data is already available to you? Financial records

What data is available within your organization? Category spending/GL breakdown

What data is available from suppliers/vendors? Not sure - need to start checking

Are you missing important data?

Can you use expert judgement, estimates, or similar data? Employee commuting

EnergyCAP Case Study: Employee Commuting

Employee Commuting

Numbers are fairly well known

Good options for estimates

Lots of public data to support estimates

Mechanics of Calculations

of employees

Driving/mass transit miles per employee

Total miles driven/ridden per year

ENC Commuting Calculations/Demo

EnergyCAP Case Study: Spend-based analysis

Which factors will we use to map cost?

Advertising & Marketing Expense → Advertising and public relations (USD, NAICS 541800)

Airfare → Air transport (USD, NAICS 481000)

Lodging → Hotels and campgrounds (USD, NAICS 721000)

Meals & Entertainment → All other food and drinking places (USD, NAICS 722A00)

Printing Expense → Photography and photocopying equipment (USD, NAICS 333316)

Hosting → Data processing and hosting (USD, NAICS 518200)

Accounting Fees → Accounting, tax preparation, bookkeeping, and payroll (USD, NAICS 541200)

ENC Spend-Based GHG Tracking Demo

GHG Protocol provides guidance for capturing Scope 3 for your business

CarbonHub can accommodate all those scenarios

Takeaway:

Carbon reporting doesn't have to be as daunting as it first seems

CarbonHub Reporting

CarbonHub Reporting

Existing Reports Updated for CarbonHub

Report-01: Monthly Trends

Report-08: Monthly Trends - One page per year

Report-10: Two-Year Comparison

New CarbonHub Reports

Report-44: Emissions Summary

Report-45: Emissions by Building or Organization

Report-46: Emissions Details (Excel only)

CarbonHub Reporting

Existing Reports Updated for CarbonHub

Report-01: Monthly Trends

Report-08: Monthly Trends - One page per year

Report-10: Two-Year Comparison

New CarbonHub Reports

Report-44: Emissions Summary

Report-45: Emissions by Building or Organization

Report-46: Emissions Details (Excel only) - **Swiss Army Knife for GHG Data**

Demo: CarbonHub Reports

CarbonHub License Details

CarbonHub Details

How is GHG functionality in CarbonHub different from EnergyCAP?

Unlocks all GHG scopes/categories

Access to broad set of maintained factors – across commodities and Scope 3 categories

Advanced charts, dashboards, and reports

How is CarbonHub licensed?

Based on number of employees in your organization

NOT meter/data point based – not limited in tracking granular/detailed data

CarbonHub Details

What's coming next for CarbonHub?

New sustainability hierarchy - easier reporting and analysis

Easily create new emission sources

Simplified recording/tracking

More options for importing data and collecting data from suppliers/vendors

Additional reports and export formats

Special Opportunity: 70% CarbonHub discount for Catalyst 2023 attendees

Create Record

CancelSave

Emissions source

Search

Create an emissions source

Supplier

Search or add...

Start date

* MM/DD/YYYY

End date

* MM/DD/YYYY

Notes

Add notes here...

EMISSIONS DETAILS AND CALCULATIONS

Calculated

Direct

Offset

Scope category

* Select

Resource

Search

Factor

Select category

Select Factor

Quantity

0

Resource unit

Select

Total emissions calculated after saving.

Emissions Sources

All Collections

All Emissions Sources

HV Software

Corporate Activities

HV Business Travel

Air Travel - By Cost

Lodging - By Cost

Meals &...

Other Travel - By...

Purchased Goods &...

HV Offices

Pittsburgh

Pittsburgh - ELE01

Pittsburgh - NG01

Pittsburgh Com...

Pittsburgh Office...

Salt Lake City

London

HV Software

HV Software / HV Offices / Pittsburgh

Pittsburgh Commuting

Insights

Records

Properties

Record ID

Search by ID

Filters

Reset

425.27 t CO2e / 125 records

Columns

<input type="checkbox"/> Record	Start	End ↓	Emissions (t CO ₂ e)	Use	Scope Category
<input type="checkbox"/> 83750382	03/01/2023	04/01/2023	3.47	10,455 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 49385729	02/01/2023	03/01/2023	3.52	10,529 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 10472303	01/01/2023	02/01/2023	3.45	10,323 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 09029371	12/01/2022	01/01/2023	3.43	10,254 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 18293817	11/01/2022	12/01/2022	3.40	10,200 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 92999101	10/01/2022	11/01/2022	3.37	10,080 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 94890210	09/01/2022	10/01/2022	3.38	10,105 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 23490101	08/01/2022	09/01/2022	3.37	10,089 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 23234913	07/01/2022	08/01/2022	3.38	10,127 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 12394902	06/07/2022	07/01/2022	3.39	10,145 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 83819281	05/01/2022	06/01/2022	3.43	10,267 mile	3 - 07. Employee Commuting
<input type="checkbox"/> 02918345	04/01/2022	05/01/2022	3.49	10,434 mile	3 - 07. Employee Commuting

1

2

3

1 - 50 of 125 total records

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Questions?

Session Survey

conferences.energycap.com/surveys

