

PPAI Product Responsibility Summit™

Understand
Sustainability

Green House Gas Accounting And *YOUR* Scope Emissions

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Green House Gas Accounting and *YOUR* Scope Emissions

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Global Chemical Management, Emerging Chemicals Of Concern And Best Practices

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Poll Everywhere - Voting Directions

- On your phone, text **PPAI** to **22333**.
- If it's multiple choice, when the question is asked, type in the letter corresponding to your answer.
- If it's a word cloud, when the question is asked, type in your word(s).
- Hit send and wait for the results.



How far along are you on your Green House Gas Accounting and Scope Reporting journey?

- (A) We actively use the GHG Accounting Protocol, have evaluated materiality, and report on Scopes 1, 2 and 3 emissions.

0%
- (B) We have a handle on Scopes 1 and 2, but are still working on Scope 3.

0%
- (C) We only calculate Scopes 1 and 2. We haven't worked on Scope 3.

0%
- (D) We're just starting the process and haven't calculated or reported any scope emissions.

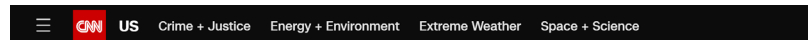
0%
- (E) We are not familiar with the Scopes or GHG accounting.

0%



Green House Gas Reporting – Why?

The Headlines



Number of billion-dollar weather disasters in US blows through annual record with four months left in the year

By Ella Nilsen, CNN
Published 11:00 AM EDT, Mon September 11, 2023

Climate change has ravaged India's rice stock. Now its export ban could deepen a global food crisis

Analysis by Rhea Mogul, Vedika Sud and Sania Farooqui, CNN
Updated 12:20 AM EDT, Wed August 30, 2023



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UN climate report: It's 'now or never' to limit global warming to 1.5 degrees

SN Wilmington Star-News [+ Follow](#)

Are NC's 'ghost forests' a canary in the coal mine for upcoming coastal change?

Story by Gareth McGrath, USA TODAY NETWORK • 12h

USA TODAY [+ Follow](#)

Hot, hotter, hottest: NOAA says Earth endured the most sizzling summer on record in 2023

Story by Doyle Rice, USA TODAY • 50m



NEWSLETTERS

NEWS CULTURE MUSIC PODCASTS & SHOWS SEARCH

CLIMATE

Climate change makes wildfires in California more explosive

August 30, 2023 • 11:42 AM ET

By Alejandra Borunda

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Green House Gas Reporting – Why?

The Regulations



European
Commission

Corporate Sustainability Reporting Directive



**The Enhancement and Standardization of
Climate Related Disclosures for Investors**



**California Climate Corporate Data
Accountability Act; and
California Green House Gases: Climate Related
Financial Risk Act**

Green House Gas Reporting – Why?

The Customers



Deloitte



Green House Gas Protocol



The Accounting Framework

- Launched in 1998 by the World Resources Institute and the World Business Council for Sustainable Development
- Internationally recognized
- Complex Accounting Framework for tracking, calculating, managing GHG emissions
- Requires deep evaluation of operational and financial controls
- Must be adjusted as operations and facilities change – acquisitions and divestments
- Divides GHG emission sources into 3 Scopes



Green House Gas Protocol



Emission Source Types

SCOPE 1

Direct Emissions from Facilities/Operations

Natural Gas heating

Wood, biomass or coal combustion

Diesel or Natural Gas emergency generators

Company vehicle fuel use

Refrigerants

SCOPE 2

Indirect Emissions from Utility Purchases

Purchased electricity, heat, steam and cooling from utility providers

SCOPE 3

Emissions from The Value Chain

Upstream

Midstream

Downstream

15 Categories

More on *YOUR* Scope 1

- On site sources of GHG's from carbon combustion/use
- Types of data to collect and record annually:
 - ❖ Vehicle mileage and fuel type (i.e., delivery truck using gasoline)
 - ❖ Actual fuel usage records (gasoline, diesel, propane, etc.)
 - ❖ Refrigerant use
 - ❖ Emergency generator run times or actual fueling amounts
 - ❖ Natural gas purchases from utility
- Calculating annual GHG emissions in CO2 equivalents
 - ❖ Emission factors from USEPA - GHG Emission Factors Hub

More on *YOUR* Scope 2

- Essentially, the GHG emitted at utilities that result from *YOUR* purchases.
- Types of data to collect and record annually:
 - ❖ Utility bills
 - ❖ Energy use, typically in kilowatt hours for electricity
 - ❖ In some cases, utility specific emission factors
- Calculating annual GHG emissions in CO2 equivalents
 - ❖ EPA Emission Factors from eGrid – Location Based
 - ❖ Utility specific emission factors – Market Based

More on *YOUR* Scope 3

Here Comes the Big One

- Typically the most significant emissions for any business
- Emissions from the value chain other than Scopes 1 and 2
 - Upstream to the point of raw material extraction/production
 - Downstream to the point of end-of-use
 - Midstream business activities
- Complex data management
- Fifteen different categories of Scope 3 emissions
 - But YOU don't necessarily have to report all categories
 - YOU can determine what categories are material

More on *YOUR* Scope 3

The Most Common Categories

- Category 1 – Purchased Goods and Services (From cradle to you)
 - Primary Data Sources:
 - Direct emission data from suppliers
 - USEPA EIO supply chain emission factors. Factors based on NAICS code and dollar spend.
 - USEPA Emission Hub
 - Life Cycle Analysis
- Category 4 – Upstream Transportation and Distribution
 - Primary Data Sources:
 - Direct emission data from suppliers and transporters
 - USEPA Emission Hub

More on *YOUR* Scope 3

The Most Common Categories Continued

- Category 6 – Business Travel
 - Primary Data Sources:
 - Employee expense reports and travel data
 - Travel provider data (airline, rental car company, taxi/Uber, hotels and conference centers)
 - USEPA Emission Hub
- Category 7 – Employee Commuting
 - Primary Data Sources:
 - Employee surveys
 - USEPA Emission Hub

More on *YOUR* Scope 3

The Most Common Categories Continued

- Category 8 – Upstream Leased Assets (i.e., leased office space)
 - Primary Data Sources:
 - Landlords, utility bills
 - USEPA Emission Hub
 - US Energy Information Administration – Commercial Buildings Energy Consumption Survey
- Category 9 – Downstream Transportation and Distribution
 - Primary Data Sources:
 - Direct emission data from transporters
 - USEPA Emission Hub

More on *YOUR* Scope 3

The Most Common Categories Continued

- Category 10 – Processing of Sold Products
 - Primary Data Sources:
 - Life Cycle Analysis
 - USEPA Emission Hub
- Category 11 – Use of Sold Products
 - Primary Data Sources:
 - Life Cycle Analysis
 - USEPA Emission Hub

More on *YOUR* Scope 3

And The Other Categories

- Category 2 – Capital Goods
- Category 3 – Fuel and Energy Related Activities
- Category 5 – Waste Generated in Operations
- Category 12 – End-of-Life Treatment of Sold Goods
- Category 13 – Downstream Leased Assets
- Category 14 – Franchises
- Category 15 – Investments

Thinking Ahead – State of Play and Beyond

- Perform a materiality assessment
 - A way to determine business priorities for you and your stakeholders.
 - Double Materiality – Financial and Environmental/Social.
- Plan for carbon emission reductions
 - Many customers are requiring suppliers to reduce emissions.
- Prepare for program audits
 - Greenwashing has been a major issue and is being closely watched.
 - Auditing (Assurance) is being required by some customers, and is included in some regulations.
 - Have a good system of record (i.e., electronic database, GHG accounting books).

Recommended Information Sources



[Homepage | GHG Protocol](#)



[EPA Center for Corporate Climate Leadership | US EPA](#)

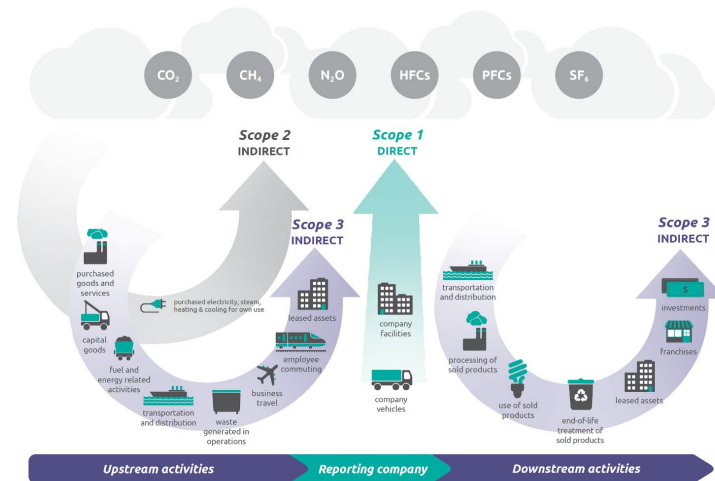


[Accredited solutions providers - search - CDP](#)



Thank You!

And Good Luck with *YOUR* Scope Emissions



Initiate Product Safety. Practice Social Awareness.

PPAI Product Responsibility Summit™

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Sustainability