The purpose of this webinar is to share educational materials related to estimating a company’s carbon footprint and accelerating climate action.

However, be mindful that you may compete with other participants attending the Webinar and, therefore, you should avoid discussing:

- Any agreements or understandings to limit any aspect of competition; and
- Competitively-sensitive information, including pricing, costs, margins, and other price-related or confidential terms of sale; forward-looking strategies or business plans (discussing, for example, a specific customer, geographic, or segment focus); and non-public information regarding employee recruitment strategies and/or wages/benefits.

You will have an opportunity to discuss sensitive strategic issues with your Walmart buying team on an individual basis – do not do so in front of your competitors.

If you have any questions, please contact your company’s legal counsel.

THIS TRAINING DOES NOT CONSTITUTE LEGAL ADVICE. SUPPLIERS SHOULD CONSULT THEIR OWN COUNSEL WITH LEGAL QUESTIONS RELATED TO CLIMATE REPORTING.
From Estimating Emissions to Accelerating Action

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Environmental Defense Fund
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Chrissy Britton
Senior Manager, Sustainability
Walmart
Walmart is on a path to become a regenerative company, one dedicated to placing nature and humanity at the center of our business practices.”

Doug McMillon
President and CEO, Walmart Inc.
What does Regeneration mean for Sustainability?

Spurring a circular economy, eliminating waste along the product chain

Decarbonizing operations

Restoring, renewing, replenishing and conserving natural resources

Adopting regenerative practices in agriculture, forest management and fisheries

Advancing prosperity, equity for associates, customers, people across our supply chains
Project Gigaton: Driving action with suppliers toward Regeneration

Aiming to reduce or avoid **1 billion MT** of emissions by 2030

Cumulative **750+ million MT CO₂e avoided** (supplier reported) and **5,200+ suppliers** engaged since 2017
Agenda

Recap from last week’s session

Scope 2: market-based and location-based methods

Updating and maintaining carbon footprints
  • Inventory management plans
  • Assurance and verification

Setting emissions reduction targets

Reporting and disclosing emissions

Where to go for more help
Recap from last week’s session
IPCC Urges Rapid Action

Recent IPCC report found that we’re off track to meet global climate goals.

To limit irreparable damage, we need to:

01 Peak greenhouse gas (GHG) emissions by 2025

02 Halve GHG emissions by the end of this decade

03 Achieve global net zero GHG emissions by around 2050
What is the value of estimating, managing and disclosing greenhouse gas emissions?

Meet stakeholder expectations

Stakeholders including customers, investors, and employees expect businesses to transparently manage emissions.

Climate change mitigation

Reducing emissions is critical for maintaining surety of supply in the face of climate change disruption.

Risk mitigation

Managing emissions can mitigate risk by reducing costs, enhancing reputation, improving efficiency, and preparing for regulation.
What is a carbon footprint?

An organization’s GHG emissions resulting from business operations (e.g., energy consumption) over a specific time period

• Typically represents one year of activities
• Includes greenhouse gases other than carbon (e.g., methane, refrigerants like HFCs)
• Typically measured in metric tons (MT) of carbon dioxide equivalent (CO₂e)
Scope 1 Emissions

- Direct GHG emissions produced by a company’s own activities or operations
- Often related to fuel consumption

Scope 1 Examples:

- Space heating
- Vehicle fleets
Scope 2 Emissions

- Indirect GHG emissions from consumption of purchased electricity
- Emissions are “indirect” because they occur somewhere else
- E.g., at a power plant where coal is burned to produce electricity

Scope 2 Examples:

Electricity purchased from local utility provider
Deeper dive on Scope 2: Market-based and location-based method
## Two methods for Scope 2 reporting

<table>
<thead>
<tr>
<th>Location-based</th>
<th>Market-based</th>
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</table>
| • Typically based on regional grid average of where facility is located  
• Does not change based on renewable energy purchasing  
• More accurate depiction of actual emissions on the grid  | • Adjusted for renewable energy purchased by business  
• More accurate depiction of efforts made to purchase renewable energy |
How do electricity grids work?

Electricity generation, transmission, and distribution:

- Power plant generates electricity.
- Transmission lines carry electricity long distances.
- Distribution lines carry electricity to houses.
- Transformer steps up voltage for transmission.
- Neighborhood transformer steps down voltage.
- Transformers on poles step down electricity before it enters houses.

Source: Adapted from National Energy Education Development Project (public domain)
Electricity is generated by different sources

Renewable energy (typically, zero emissions)

Coal (high emissions)

Sources of U.S. electricity generation, 2020
Total = 4.12 trillion kilowatthours

<table>
<thead>
<tr>
<th>Source</th>
<th>Percentage</th>
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<tbody>
<tr>
<td>Wind</td>
<td>8.4%</td>
</tr>
<tr>
<td>hydro*</td>
<td>7.3%</td>
</tr>
<tr>
<td>solar</td>
<td>2.3%</td>
</tr>
<tr>
<td>biomass</td>
<td>1.4%</td>
</tr>
<tr>
<td>geothermal</td>
<td>0.4%</td>
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</tbody>
</table>

renewables 20%

nuclear 20%

coal 19%

natural gas 40%

petroleum* 1%

via EIA
Electricity grids are typically regional

- A single grid region might have hundreds of power plants feeding into it
  - I.e., solar farms, wind farms, coal power plants, nuclear plants, etc.
- These power plants have varying emissions intensities
Emissions of electricity varies based on location

• Each region has a unique mix of energy generation and emissions intensity
  • E.g., some regions may have coal plants, other may have hydropower plants
• Thus, regions have different “grid average” emissions
• Emissions from electricity consumed by businesses vary based on the regional “grid average” emissions
  • E.g., US EPA eGrid grid average emissions
Emissions of electricity varies based on location

Grand Coulee Dam, Washington

Jim Bridger Power Station, Wyoming
Businesses are purchasing renewable energy

- Businesses increasingly buy renewable energy to achieve their climate goals
- Procurement can be from on-site sources
  - E.g., electricity from rooftop solar panels
- Or off-site sources
  - E.g., solar farm in another state via a Power Purchase Agreement (PPA)
Easiest path to renewable energy is off-site purchasing

- Off-site renewable energy is often not physically delivered to the buyer
- Instead, it is conveyed via contracts (such as a Power Purchase Agreement)
- This supports overall renewable energy development and companies can reduce their emissions
- But: it does not necessarily reduce emissions on the local grid where you operate
Two methods for Scope 2 reporting

Business should report on the emissions from:

01 The electricity they actually consume from the grid  
Location-Based Method

02 The electricity or renewable energy certificates purchased through other contractual mechanisms  
Market-Based Method
Two methods for Scope 2 reporting

<table>
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<tr>
<td>• More accurate depiction of actual emissions on the grid</td>
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</table>
**What emission factors should I use?**

Reminder: emission factors translate energy consumption to emissions, e.g. pounds of CO₂ per MWh electricity

<table>
<thead>
<tr>
<th><strong>Location-based</strong></th>
<th><strong>Market-based</strong></th>
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<tbody>
<tr>
<td><strong>Emission factors:</strong></td>
<td><strong>Emission factors:</strong></td>
</tr>
<tr>
<td>• Regional grid average (regional or national)</td>
<td>• Renewable energy certificates (RECs)</td>
</tr>
<tr>
<td></td>
<td>• Power Purchase Agreements (PPAs)</td>
</tr>
<tr>
<td></td>
<td>• Green power programs</td>
</tr>
<tr>
<td></td>
<td>• Other utility-specific emission factor (if available)</td>
</tr>
<tr>
<td></td>
<td>• Other contracts for renewable energy</td>
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</tbody>
</table>
Scope 2 Example

Acme Co. is located in California and purchases no renewable electricity.

Because Acme does NOT purchase renewable energy, market- and location-based totals are the same. This is the case for many companies.
Scope 2 Example

Acme Co. is located in California and now purchases 100 MWh of solar electricity from an off-site location.

Because Acme DOES purchase renewable energy, market- and location-based totals are different.
Scope 2 Best Practices

• Read GHG Protocol’s Scope 2 Guidance

• Pay attention to the ownership of renewable electricity
  • Renewable Energy Certificates (RECs), Energy Attribute Certificates (EACs), Guarantee of Origin, etc.

• Be consistent with the method you use to calculate totals and track toward a target

• Publish both totals, e.g.:
Updating and maintaining carbon footprints
Consistency and documentation is critical

Carbon footprints should be updated each year

Consistency and documentation are critical for carbon footprints

01
Save staff time and resources

02
Improve internal transparency

03
Ensure data accuracy

04
Measure progress over time in comparable way

05
Prepare for future regulation
An “inventory management plan” is an internal document that accompanies a carbon footprint.

Provides written documentation of the “WHO, WHAT, WHEN, WHERE, HOW” of the footprint process.

Improves internal clarity on processes and timelines, and helps improve planning over time.

Templates available online:
US EPA Center for Corporate Climate Leadership Inventory Management Plan Guidance
## Inventory management plans

Provides documentation of the “WHO, WHAT, WHEN, WHERE, HOW” of the footprint process

### WHO?
- Contact name and information
- Roles and responsibilities
- Relevant trainings

### WHAT?
- Reporting boundaries
- Emissions sources (facilities, fleets, etc.)
- Relevant GHGs

### WHEN?
- What year does it apply to?
- What is the timeline for gathering and reporting data?

### WHERE?
- Where is data obtained from?
- Where is it stored and accessed?
- Where are emission factors obtained?

### HOW?
- What calculation methodologies were used?
- What was calculated versus estimated?
- What were assumptions in estimations?
Other considerations for updating footprints

Have boundaries changed? (E.g., major acquisitions or divestitures?)

Are there new facilities that have come online? Old ones that have been decommissioned?

Are there updated emission factors for Scope 2?

Will you be doing assurance or verification?
Assurance and verification

- Assurance (or verification) is an audit of a carbon footprint and associated data by an independent 3rd party
- Important step in organizational climate maturity
- Why do assurance?
  - Enhance internal and external confidence in data
  - Identify areas for improvement
  - Strengthen reporting processes and procedures

2019 | 2020 | 2021

91% | 92% | 95%
reported some ESG information

51% | 58% | 64%
obtained some level of assurance

IFAC State of Play: Sustainability Disclosure & Assurance
Assurance and verification

GHG assurance is a common service offered by accredited firms, e.g.:

- Major accounting firms with sustainability practices
- Environmental and engineering consultancies

Where to learn more?

- [GHG Protocol Corporate Standard Ch. 10](#)
- [CDP’s Verification Resources](#)
Setting emissions reduction targets
Why set an emissions reduction target?

Setting ambitious climate goals for your organization is a key step in climate maturity, and increasingly expected by stakeholders.

Emissions reduction goals can help:

- Find cost savings
- Galvanize sustainability efforts
- Enhance reputation
- Drive innovation
- Future-proof business
What is a “science-based” target?

- Climate targets should **align with what science tells us** we need to do to meet the goals of the Paris Agreement.
- “Science-based targets” are a way of translating global climate goals **into corporate emissions reduction pathways**.
- These pathways tell us **how much** we need to reduce emissions, and by when.
Recent IPCC report found that we’re off track to meet global climate goals.

To limit irreparable damage, we need to:

01 Peak greenhouse gas (GHG) emissions by 2025

02 Halve GHG emissions by the end of this decade

03 Achieve global net zero GHG emissions by around 2050
What is a “science-based” target?

Generally, targets are considered “science-aligned” if they commit to:

**Near-term emissions reductions**
aligned with global goal of halving emissions by 2030
- ~4% emissions reduction per year

**Net zero emissions** by midcentury
- ~90%+ absolute emissions reduction
Setting science-based targets

Science Based Targets Initiative (SBTi) is a leading standard-setter and goal validation organization:

- SBTi defines reduction pathways and goal-setting methodologies
- Companies commit to setting a target and submit their target for official validation within 2 years

SBTi is the “gold standard” of goals; requires Scope 3 coverage

UN-backed Race to Zero initiative also develops criteria for ambitious goal-setting
What are general expectations for ambitious goals?

Set emissions reduction goals that ideally:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td><strong>01</strong></td>
<td>Address all GHGs and corporate operations</td>
</tr>
<tr>
<td><strong>02</strong></td>
<td>Have a clear base year and target year</td>
</tr>
<tr>
<td><strong>03</strong></td>
<td>Commit to ambitious absolute emissions reductions</td>
</tr>
<tr>
<td><strong>04</strong></td>
<td>Address all three scopes of emissions</td>
</tr>
<tr>
<td><strong>05</strong></td>
<td>Are publicly disclosed</td>
</tr>
</tbody>
</table>
What does a published goal look like?

Acme Company will reduce ____________ emissions across ________________

<table>
<thead>
<tr>
<th>Scopes</th>
<th>Goal coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Percent reduction</td>
<td>Base year</td>
</tr>
</tbody>
</table>

by ___________ from ___________ to ___________.
What does a published goal look like?

Acme Company will reduce *Scope 1 and 2* emissions across *global operations*.

<table>
<thead>
<tr>
<th>Scopes</th>
<th>Coverage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Base year</td>
<td>Target year</td>
</tr>
</tbody>
</table>

by **50%** from **2020** to **2030**.
Reduction Goal Examples

Company A:
Reduce absolute **global scopes 1 & 2** GHG emissions **35%** by **2025** and **65%** by **2030** from **2015 base year**.

Company B:
Reduce **Scope 1 and 2** GHG emissions by **50%** by **2030**, as compared to a **2019 base year**.

Company C:
Reduce absolute **scope 1 and 2** GHG emissions **60%** by **FY2030** from a **FY2018 base year**.
Best practices for reduction goals

Think about what makes sense for your organization

- Does it make sense to start with SMART Goals?
- Work towards establishing company-wide science-based targets
- Consider other supportive goals, like renewable energy

- Executive buy-in and cross-functional support across the business are important for success
- Communicate early and often around your goal
Best practices for reduction goals

- Develop a roadmap of potential projects and activities that can support goal achievement
- E.g., leveraging EDF’s Pathways to Net Zero report series
## How to share goals for Project Gigaton

### Project Gigaton SMART Goal Templates

This interactive page is a replica of the SMART goal templates in Walmart's Project Gigaton. To set your SMART goals in Project Gigaton and get recognized by Walmart, log into your account on the [Sustainability Portal](#).

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Energy</td>
<td></td>
</tr>
<tr>
<td>Nature</td>
<td></td>
</tr>
<tr>
<td>Waste</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td></td>
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<tr>
<td>Transportation</td>
<td></td>
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<tr>
<td>Product Use and Design</td>
<td></td>
</tr>
<tr>
<td>Enterprise Level</td>
<td></td>
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</table>

### GOALS

- We have a Science Based Target (SBT) which was approved in **Year**.

- We will be Net Zero by **Year**.

If you are unable to set one of the above goals, free text can be entered below:

- We will **Free Text** by **Year**. **I confirm this goal is SMART.**
Reporting and Disclosure
Public Disclosure

- Transparency is a critical
- Best practice to disclose at least:
  - **Scope 1 and Scope 2 emissions** (location- and market-based)
  - **Scope 3 emissions** (encouraged)
  - Interim or short-term targets
  - Long-term or net zero targets
Employees and customers increasingly interested in climate change

Investors regularly relying on sustainability disclosure for investments

Potential mandatory GHG reporting in >37 countries, incl. US, EU, UK, India

Stakeholders are interested in climate disclosure

Company sustainability reporting can be important to investment decision-making

Which one of the statements best describes how you and your investment team evaluate nonfinancial disclosures that relate to the environmental and social aspects of a company’s performance?

- We usually conduct a structured and methodical evaluation of nonfinancial disclosures
- We usually evaluate nonfinancial disclosures informally
- We conduct little or no review of nonfinancial disclosures

Note: 2022 and 2020 data does not add to 100% because of rounding.

EY Global Corporate Reporting and Institutional Investor Survey – Nov 2022
Remember:

Estimating a carbon footprint is a means to an end, not the end goal.

You can act now to reduce emissions, save money, and boost efficiency.
Getting more help
Getting more help

- Walmart Sustainability Hub
- EDF Climate Corps Fellows
- Greenhouse Gas Protocol web trainings
- Science-Based Targets Initiative web trainings
- SME Climate Hub tools and trainings
- Sustainability consultancies (e.g., CDP Solutions Provider list)
- World Wildlife Fund (WWF)
- UN Race to Zero’s Accelerator Partners
- Coming soon: EDF’s Net Zero Action Accelerator
Additional Resources

- Greenhouse Gas Protocol
  - Scope 2 Guidance
  - Scope 2 Training
- US EPA Center for Corporate Climate Leadership
- EDF Pathways to Net Zero Reports
- EDF Climate Corps Handbook
Future Walmart Trainings

Session 3: Climate action companies with 500 or less employees - Introduction to the SME Climate Hub

May 4th, 11am CT, Register Here

https://www.walmartsustainabilityhub.com/reporting/trainings-and-webinars