



BUILDING FOR SUSTAINABILITY AND PROFITABILITY

Insights from Industry Leaders

Thursday, March 21, 2024 – 8:00 am – 4:00 pm

Panelists



Building for Sustainability and Profitability

Featuring a panel of industry leaders.

MODERATORS



MELISSA BILLIG
Tannenbaum Helpern Syracuse
& Hirschtritt LLP



FELICE FARBER
Subcontractor Trade Association

PANELISTS



LAUREN ALGER
STV



AMY CANOVA, LEED AP BD+C, ENV SP
AECOM New York Metro



HOPE KAUFMAN
Dewberry



BEATRICE SIBBLIES
Village Harlem & BOS Development



IREM A. YARGICI, ENV SP
Halmar

Learn how you can implement sustainability
into your day-to-day business

THURS MARCH 21
8:00 am - 4:00 pm

AIM.WBCNYC.ORG

LET'S START BY INTRODUCING THE CONCEPT OF GHG EMISSIONS AND "SCOPES".

GHG emissions are the discharge of gases into the earth's atmosphere, that contribute to the greenhouse effect by absorbing infrared radiation. It is best practice to report the following seven greenhouse gases as included in the Kyoto Protocol: carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulfur hexafluoride (SF₆). The most relevant emission to the construction industry is the carbon dioxide (CO₂) emissions. Three "scopes" are defined for GHG accounting and reporting purposes:

- **Scope 1 or Direct Emission** are sources that are owned or controlled by an organization: **THE FUEL WE BURN.**



Stationary Sources : fuel used in our main and field offices.



Mobile Sources : fuel used in generators on job sites, for company-owned vehicles and equipment.

- **Scope 2 or Indirect Emissions** are emissions from electricity consumed by an organization. **THE ELECTRICITY WE USE.**



Emissions from purchased electricity used in our facilities and in our operations. For example: electricity used in field offices, and trailers, for air conditioning or heating.

- **Scope 3 or other Indirect Emissions** are a consequence of the activities of the company but occur from sources not owned or controlled by the company. Ex: **PURCHASED GOODS AND SERVICES.**



Some examples of scope 3 activities: raw materials like concrete, steel, asphalt and aggregates, purchased through Subs / Vendors.

For each greenhouse gas, a **Global Warming Potential (GWP)** was developed to allow comparisons of the global warming impacts of different gases. Specifically, it is a measure of how much energy the emissions of 1 ton of a gas will absorb over a given period of time, typically a 100-year time horizon, relative to the emissions of 1 ton of carbon dioxide (CO₂). Gases with a higher GWP absorb more energy, per ton emitted, than gases with a lower GWP, and thus contribute more to warming Earth.

OVERVIEW OF THE 15 SCOPE 3 CATEGORIES.

The GHG Protocol determines 15 categories of Scope 3 emissions covering a wide range of activities in the value chain, upstream and downstream of the reporting organization. Scope 3 emissions are NOT directly controlled by the organization.

Overview of the 15 scope 3 categories

GHG emissions related to purchased or acquired goods and services

CATEGORY 1  Purchased goods & services Emissions from activities up to manufacturing of raw materials parts & containers/packing materials.	CATEGORY 2  Capital goods Extraction, production, and transportation of capital goods purchased or acquired.	CATEGORY 3  Fuel & energy-related activities Upstream emissions of purchased electricity (extraction, production & transportation of fuels consumed by the company).
CATEGORY 4  Upstream transportation & distribution Transportation and distribution of products and services purchased by the company between the company's major suppliers and its own operations (in vehicles and facilities not owned or controlled by the company).	CATEGORY 5  Waste generated in operations Disposal and treatment of waste generated due to company operations (in facilities not owned or controlled by the reporting company).	CATEGORY 6  Business travel Transportation of employees for business-related activities in non-company owned vehicles.
CATEGORY 7  Employee commuting Transportation of employees between their homes and their worksites (in vehicles not owned or operated by the company).	CATEGORY 8  Upstream leased assets Operation of assets leased by the company in the reporting year and not included in scope 1 and scope 2.	

- Purchased good and services;
- Capital goods;
- Fuel and energy-related activities;
- Upstream transportation and distribution;
- Waste generated in operations;
- Business travel;
- Employee commuting;
- Upstream leased assets;
- Downstream leased assets;
- Franchise;
- Investments;
- Processing of sold products;
- End-of-life treatment of sold products.

Sustainability Terminology.

Sustainable Development Goals (SDGs):

The *2030 Agenda for Sustainable Development*, adopted by all United Nations members in 2015, created 17 world **Sustainable Development Goals (SDGs)**. They were created with the aim of “peace and prosperity for people and the planet”. They state that ending poverty and other deprivations, goes alongside strategies that improve health and education, reduce inequality, and increase economic growth while tackling climate change and working to preserve oceans and forests. The SDGs emphasize the interconnected environmental, social and economic aspects of sustainable development by putting sustainability at their center.

The short titles of the 17 SDGs are: No poverty ([SDG 1](#)), Zero hunger ([SDG 2](#)), Good health and well-being ([SDG 3](#)), Quality education ([SDG 4](#)), Gender equality ([SDG 5](#)), Clean water and sanitation ([SDG 6](#)), Affordable and clean energy ([SDG 7](#)), Decent work and economic growth ([SDG 8](#)), Industry, innovation and infrastructure ([SDG 9](#)), Reduced inequalities ([SDG 10](#)), Sustainable cities and communities ([SDG 11](#)), Responsible consumption and production ([SDG 12](#)), Climate action ([SDG 13](#)), Life below water ([SDG 14](#)), Life on land ([SDG 15](#)), Peace, justice, and strong institutions ([SDG 16](#)), and Partnerships for the goals ([SDG 17](#)).

ESG:

ESG stands for environmental, social and governance. These are called pillars in ESG frameworks and represent the 3 main topic areas that companies are expected to report in. The goal of ESG is to capture all the non-financial risks and opportunities inherent to a company's day to day activities.

Embodied Carbon:

Embodied carbon, also known as upfront or embodied emissions, refers to the total greenhouse gas emissions associated with the manufacturing, transportation, and construction of building materials and components. It encompasses the environmental impact of a building before it becomes operational.

Operational Carbon:

Operational carbon refers to the greenhouse gas emissions associated with the day-to-day operations and energy use of a building throughout its lifecycle. It includes emissions from heating, cooling, lighting, appliances, and other activities related to building occupants and operations.

Net Zero:

Net Zero refers to the balance between the amount of greenhouse gases emitted into the atmosphere and the amount removed from it. Achieving net zero emissions means that the total amount of greenhouse gases produced is offset by removing an equivalent amount from the atmosphere, typically through technological or natural means such as carbon capture and storage, afforestation, or other forms of carbon sequestration. This concept is crucial in the context of mitigating climate change, as it aims to stabilize the concentration of greenhouse gases in the atmosphere, ultimately curbing global warming.

Sustainability Terminology.

Sustainable Procurement

Sustainable procurement is the process of making purchasing decisions that meet an organization's needs for goods and services in a way that benefits not only the organization but society as a whole while minimizing its impact on the environment. This is achieved by ensuring that:

- the working conditions of its suppliers' employees are decent,
- the products or services purchased are sustainable, where possible, and
- that socio-economic issues, such as inequality and poverty, are addressed.

Circular Economy:

A circular economy is an economic system designed to minimize waste and make the most of resources. In a circular economy, products, materials, and resources are used for as long as possible, and their value is maintained through recycling, refurbishing, and reusing. The goal is to create a closed-loop system where resources are continuously circulated within the economy rather than being discarded after a single use.

Circular Design:

Circular design is an approach to product and system development that prioritizes sustainability and considers the entire lifecycle of materials, focusing on minimizing waste and promoting circular economies.

Passive House:

Passive House is a standard for energy efficiency in building design, focusing on reducing energy consumption by employing high-quality insulation, airtightness, and efficient ventilation systems.

IAQ:

IAQ stands for Indoor Air Quality, referring to the condition of the air inside buildings and structures, particularly concerning the health and comfort of the occupants.

Triple Bottom Line:

The triple bottom line is an accounting framework that considers three dimensions of performance: social, environmental (planet), and economic (business), aiming for a balanced approach that benefits people, the planet, and profits.

Sustainability Certifications Explained.

LEED Certification:

LEED, which stands for Leadership in Energy and Environmental Design, is a green building certification program developed by the U.S. Green Building Council (USGBC). It provides a framework for designing, constructing, operating, and certifying buildings and neighborhoods that are environmentally responsible, resource-efficient, and healthy places to live and work. LEED certification is based on a point system where projects earn points for various sustainability features and strategies implemented throughout the building or neighborhood's design and construction process. These features can include energy efficiency, water conservation, sustainable materials selection, indoor environmental quality, site sustainability, and innovation in design.

WELL Certification:

The WELL Certification is a performance-based system for measuring, certifying, and monitoring the features of the built environment that impact human health and well-being. Developed by the International WELL Building Institute (IWBI), the WELL Building Standard is grounded in medical research and industry best practices.

Buildings and interior spaces seeking WELL Certification undergo a rigorous evaluation process based on various categories, or concepts, that address different aspects of occupant health and wellness. These concepts include air, water, nourishment, light, fitness, comfort, mind, materials, and community.

To achieve WELL Certification, a project must demonstrate compliance with specific performance requirements and earn a predetermined number of points within each concept. The certification process typically involves a combination of documentation review, onsite assessments, and performance testing.

WELL Certification is available for various types of projects, including new construction, existing buildings, interior spaces, and core and shell developments

ENVISION Certification:

Envision is a sustainability rating system and framework specifically designed for infrastructure projects, similar to LEED for buildings. It was developed by the Institute for Sustainable Infrastructure (ISI) in collaboration with the Zofnass Program for Sustainable Infrastructure at the Harvard University Graduate School of Design. Envision certification provides a comprehensive assessment of infrastructure projects across various criteria, including quality of life, leadership, natural world, climate and risk, resource allocation, and alignment with sustainable development goals (SDGs). It evaluates projects based on their environmental, social, and economic impacts, as well as their resilience and sustainability. Similar to LEED, Envision certification uses a rating system where projects can earn points for incorporating sustainable practices and features into their planning, design, construction, and operation. Projects can achieve different levels of certification, ranging from Bronze to Platinum, based on the number of points earned.

EPD:

EPD stands for **Environmental Product Declaration**, a standardized document that communicates the environmental impact of a product throughout its lifecycle, providing information on aspects like energy use, emissions, and resource consumption.

Changing Regulatory Context: Moving toward a compliance market of sustainability?

The Paris Agreement - The Paris Agreement is an international treaty adopted in December 2015 under the United Nations Framework Convention on Climate Change (UNFCCC). Its primary goal is to limit global warming to well below 2 degrees Celsius above pre-industrial levels, with an aspirational target of limiting the temperature increase to 1.5 degrees Celsius. Key features of the Paris Agreement include:

- **Nationally Determined Contributions (NDCs):** Each participating country sets its own emission reduction targets and develops plans to achieve them. These targets are known as NDCs.
- **Transparency and Accountability:** The agreement requires countries to regularly report on their emissions and progress toward their targets. A mechanism for reviewing and assessing these reports is established.
- **Financial Support:** Developed countries commit to providing financial assistance to developing countries to help them mitigate and adapt to climate change. This support is crucial for enabling developing countries to transition to low-carbon economies and cope with the impacts of climate change.
- **Global Stocktake:** The agreement includes a mechanism for regularly reviewing collective progress toward achieving its goals. This process, known as the Global Stocktake, occurs every five years to assess whether the collective efforts are sufficient and to inform future action.

The Paris Agreement entered into force on November 4, 2016, after it was ratified by enough countries to represent a significant portion of global emissions. It has since been recognized as a landmark achievement in international efforts to address climate change, signaling a commitment from nations around the world to work together to mitigate its effects.

SEC Climate Regulation - refers to the actions taken by the SEC to address climate-related risks and disclosures in the financial markets. This could include requiring companies to disclose information about their carbon footprint, climate-related risks to their business operations, and how they are managing these risks. One notable development was the SEC's consideration of mandatory climate risk disclosures for publicly traded companies. This would require companies to disclose information about their greenhouse gas emissions, climate-related risks to their business, and how they are adapting to climate change.

Climate Leadership and Community Protection Act (CLCPA) – signed into law in 2021. The Law requires New York to reduce greenhouse gas emissions 40% by 2030 and no less than 85% by 2050 from 1990 levels. The law creates a Climate Action Council charged with developing a scoping plan of recommendations to meet the targets.

The Low Embodied Carbon Concrete Leadership Act - signed into law in 2021, requires the Office General Service (OGS) to establish guidelines for the procurement of low embodied carbon concrete and to establish a stakeholder advisory group at the OGS.

NYS Executive Order 22 - issued in September 2022 directs state agencies to adopt a sustainability and decarbonization program. The EO establishes a GreenNY Council that is authorized to issue operational directives without the need for legislation or a regulatory comment period. The operational directives will address common construction materials to reduce the amount of embodied carbon. The Order covers the effort for: Low embodied carbon concrete, Low or zero emissions vehicles, Waste diversion plans and Environmental Product Declarations.

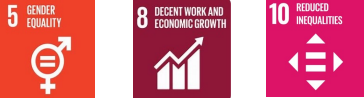
NYC Executive Order 23 - issued September 2022 requires agencies to develop and submit action plans by October 1, 2023, aimed at reducing embodied carbon in capital projects. This should include targets for low-emission vehicles, preference for all-electric equipment, low-carbon concrete specifications, and require environmental product declarations.

New in 2024: WBC Sustainability Committee

The WBC has formally embraced its sustainability plan, aligning it with nine Sustainable Development Goals (SDGs) and identifying 14 targets that are most pertinent to the organization's mission, undertakings, and core values.

The objectives of the WBC Sustainability Committee encompasses:

- Promoting diversity and inclusion of all and supporting gender equality within the industry;



- Ensuring educational, skill development, and industry training to assist WBC Members and Women;



- Encourage ethical behavior and sustainable business practices compliant with industry requirements;



- Supporting industry innovation and technology for sustainable cities.



- Collaborate for sustainable infrastructure and ESG goals.



What is your ecological footprint?

Are you aware that the building and construction industry globally accounts for 40% of greenhouse gas emissions?

Measure your footprint?

Ecological Footprint Calculator: www.footprintcalculator.org/home/en





THANK YOU