

December 2023

Javits Center Path to Net Zero



Table of Contents

0 Introduction

1 Javits Center Emissions

2 Decarbonizing Scope 1 & 2 Emissions

3 Decarbonizing Scope 3 Emissions

4 What's Next?

Introduction

Executive Summary

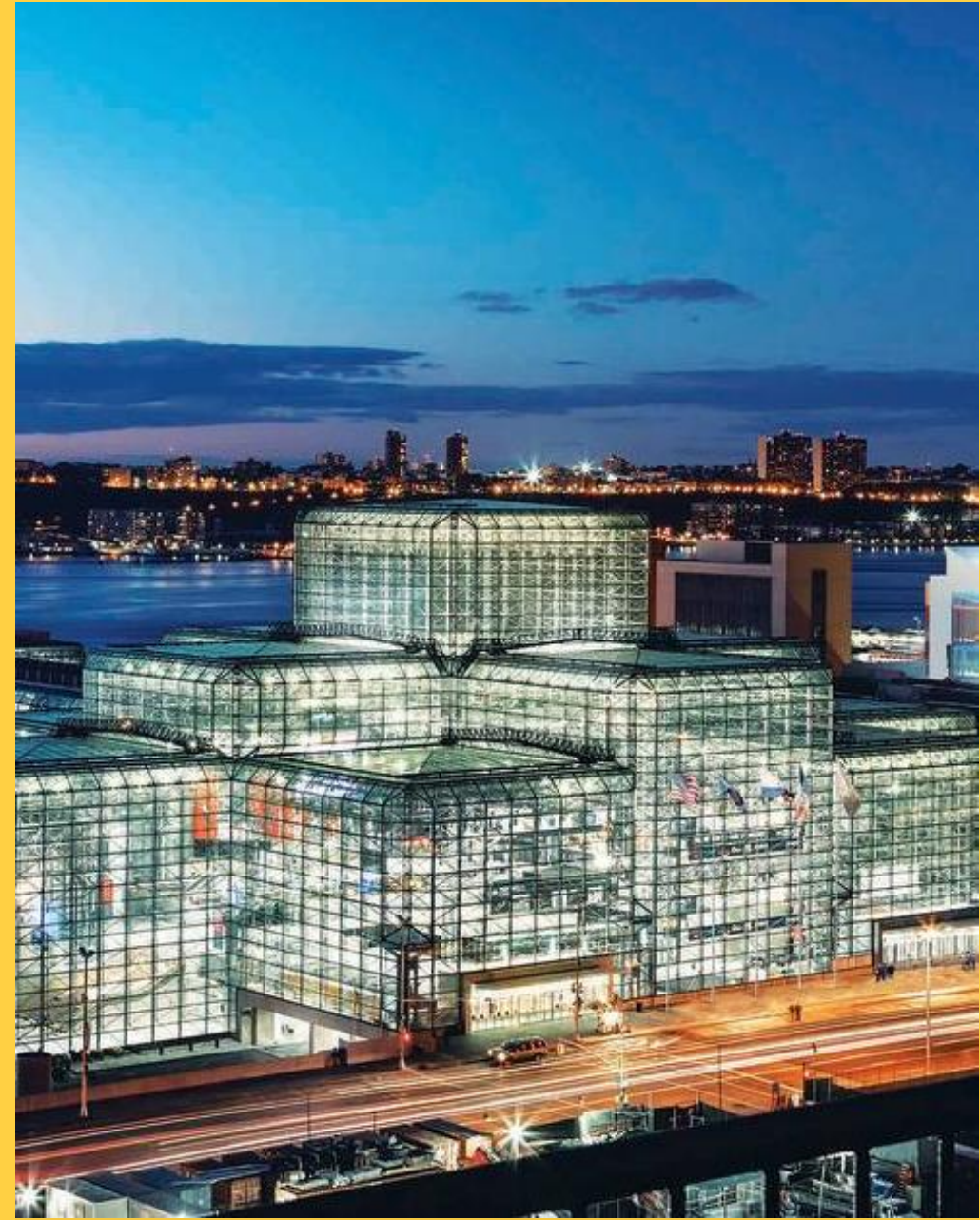
While the Javits Center's sustainability journey began over ten years ago, with renovations during a span of 5 years (2009-2014), our journey to net zero carbon emissions has ramped up since the publication of our 2021 Sustainability Report. Furthermore, our commitment to the Net Zero Carbon Events (NZCE) Pledge in 2021 and the release of Governor Hochul's 2022 New York State Executive Order 22 have advanced our sustainability and climate positive ambitions.

The Javits Center was deeply involved in the development of the Net Zero Carbon Events pledge – a global industry effort to tackle climate change, reduce greenhouse gas emissions, and improve event sustainability – and participated in the presentation of the pledge at the United Nations Framework Convention on Climate Change's Conference of the Parties 26, in November 2021. Javits serves as a platinum level contributor to the international initiative.

The Javits Center Path to Net Zero, developed in collaboration with WSP, is a preliminary plan, outlining the steps Javits will take towards Net Zero. In 2024, Javits will develop a Net Zero Carbon Roadmap, completing the GHG baseline and inventory, evaluating and investing in decarbonization and GHG mitigation levers for Scopes 1 and 2, and engaging with partners and its value chain to reduce Scope 3 emissions. As an effort to reduce Scope 2 emissions, Javits will complete the installation of 1.61 MW of solar energy and 3.5 MW of battery storage by the end of 2024.

This plan is the first step in Javits commitment to meet the NZCE pledge and become Net Zero, but we understand that achieving Net Zero is a journey, which we will share and report on in our regular sustainability reports.

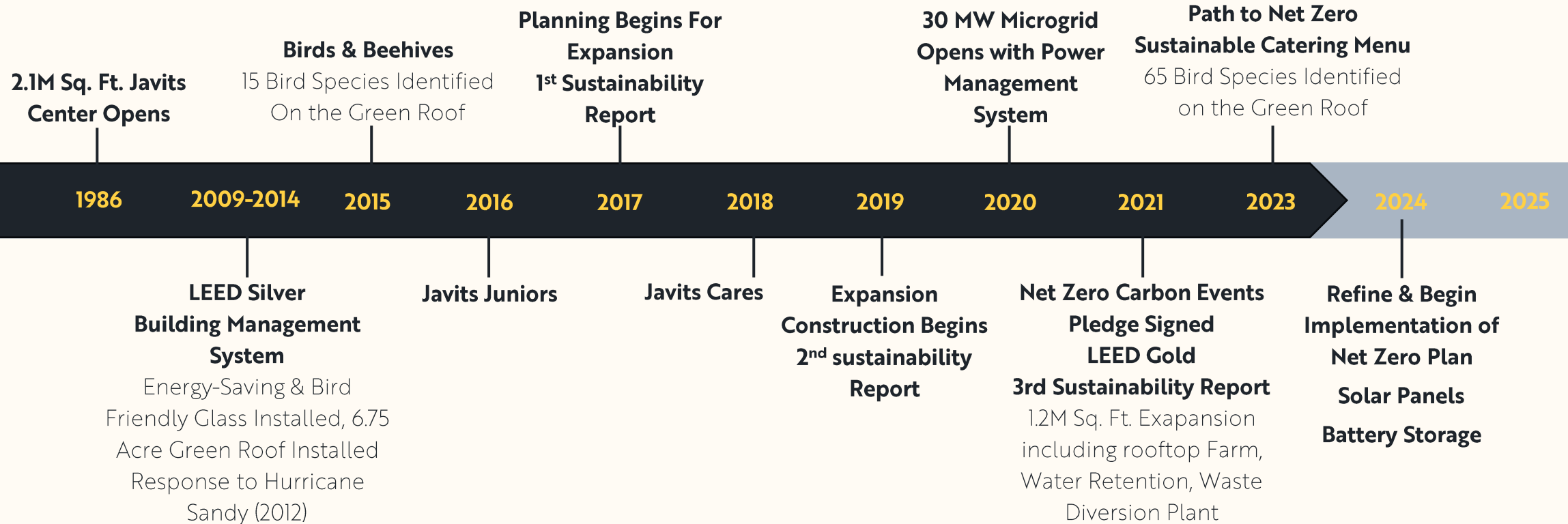
Javits is committed to meeting the targets set forth by NZCE and will continue to innovate and lead in the sustainable events industry with our sustainability plan. We look forward to sharing what comes next in our journey!



Timeline

Javits Center Path to Net Zero

5



This timeline captures key milestones and improvements that have contributed to the Javits sustainability and resiliency program. Efforts took full force in the aftermath of hurricane Sandy in 2012. With the facility being located on the Hudson River, it is at risk of flooding and sea level rise, with over 5 ft. of water infiltrating the building during hurricane Sandy and an extended loss of power. In 2024 Javits plans to expand on resiliency measures to floodproof and continue operation during natural disaster events through the development of a microgrid, solar energy integration, and battery storage.

Net Zero Carbon Events Initiative (NZCE) has established targets and action areas that will move the events industry towards net zero by 2050.

Net Zero Carbon Events Initiative

On September 2, 2021, the Global Association of the Exhibition Industry (UFI) announced the Net Zero Carbon Events initiative, which is hosted by the Joint Meetings Industry Council (JMIC) and supported by the United Nations Framework Convention on Climate Change (UNFCCC).

The Javits Center joined hundreds of organizations in signing the net zero GHGs by 2050 pledge ahead of the 2021 United Nations Climate Change Conference, COP26, in Glasgow. The commitment places signatories on a pathway to net zero carbon by 2050, with the first step being to define and develop a net zero plan by the end of 2023. By 2025, signatories are expected to measure and embed practices in place for data collection. By 2030, signatories must show a reduction of 50% when compared to a defined baseline year. By 2035-2040, signatories are expected to optimize performance and continue to reduce emissions. Finally, by 2050, signatories must be net zero carbon.

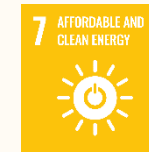
50% Reduction in GHG Emissions by 2030

100% Reduction in GHG Emissions by 2050

NZCE Action Areas

The five action areas of the NZCE pledge include UN Sustainable Development Goals (SDGs) 2, 7, 9, 12, 13, and 17. Through current initiatives, Javits is addressing all of the SDGs outlined.

Action Area 1: Power events efficiently with clean, renewable energy



Action Area 2: Redesign events to utilize sustainable materials and be waste free



Action Area 3: Source food sustainably, and eliminate food waste



Action Area 4: Move goods and equipment efficiently and transition to zero emissions logistics



Action Area 5: Work with and influence partners in the travel sector to reduce and mitigate the emissions of travel to events



Both New York State and New York City have passed legislation to decarbonize buildings and the electricity grid.

Javits has clear alignment with sustainability initiatives that are driven by policy.

Market Transformation

Legislative frameworks in New York are radically changing the economy by creating a catalytic market for green buildings and electrification.

New York State's "Green New Deal" is targeting net zero emissions economy-wide by 2050, 100% clean power by 2040, doubling distributed solar deployment, and increasing renewable energy storage capabilities. New York City is setting its own climate goals, coupled with initiatives to streamline, encourage, and fund energy efficiency and electrification efforts in buildings.

With investment in decarbonizing the grid on one end and increasing incentives for system electrification and energy storage at the building scale on the other, opportunities remain ripe for exploring and implementing best practice in decarbonization. Businesses and sophisticated building owners are rushing to use these opportunities to stand out as early adaptors and save money on long-term management.

Regulations

Regional regulation is offering guidance and setting mandatory performance requirements.

New York State recently passed Executive Order 22, requiring public agencies to lead by example in Adopting and implementing Sustainability and Decarbonization Programs. It sets clean electrification sourcing, energy efficiency improvements, waste reduction, and removal of fossil fuel heating as mandatory for all public buildings within the next five to ten years.

New York City goes one step further by requiring deep energy, water, and embodied carbon reductions in public buildings, as well as fines for all public and privately held buildings over 25,000 square feet that exceed a city-determined emissions cap under Local Law 97.

The events industry has recognized the importance of climate action, but leading organizations need to show the way.

Current Status

- Almost 9 in 10 industry respondents to a Global Business Travel Association (GBTA) 2022 study collectively say that sustainability is already a priority for their company.
- Only 14% of these respondents say that the industry is currently well advanced on sustainability – but improvements are being made as 76% of travel buyers have already incorporated or are planning to incorporate sustainability objectives in their travel policies.
- For industry professionals, among the biggest barriers to more sustainable business travel management practices are higher costs (82%) and lack of transparent information and data (63%). The key enablers include fostering change in industry culture (63%) and improved access to sustainability data (63%).
- Industry respondents say the most impactful actions for sustainable business travel programs are prioritizing energy efficient accommodations (81%), suppliers with sustainability certification (78%), and taking flights using sustainable aviation fuel (SAF) (73%).

Industry Trends

- After the pandemic, event industry peers are cautious about the status of the profession in a climate-sensitive environment and increasingly remote workplace. It is understood that sensitivity to climate impacts wherever possible will be important as organizers of large gatherings decide whether to return to in-person formats.
- A major focus for the past three years in corporate events has been emissions associated with transit, especially in air travel. Much of the Global Business Travel Association (GBTA) industry leadership research is associated with air travel.
- Food is also a growing area under consideration in the events industry. As a particular focus at COP28, the 2023 United Nations Climate Conference, food sourcing and waste is under a growing spotlight—and at the verge of major industry innovations.
- The Net Zero Carbon Events (NZCE) Pledge was founded in response to the need for leadership in the events industry to identify opportunities and best practice to drive down carbon emissions. As one of the few non-European signatories, Javits is leveraging best practice from across the globe by participating in NZCE.

Javits Center Emissions



Defining a Net Zero Carbon Events boundary for Scopes 1, 2 and 3

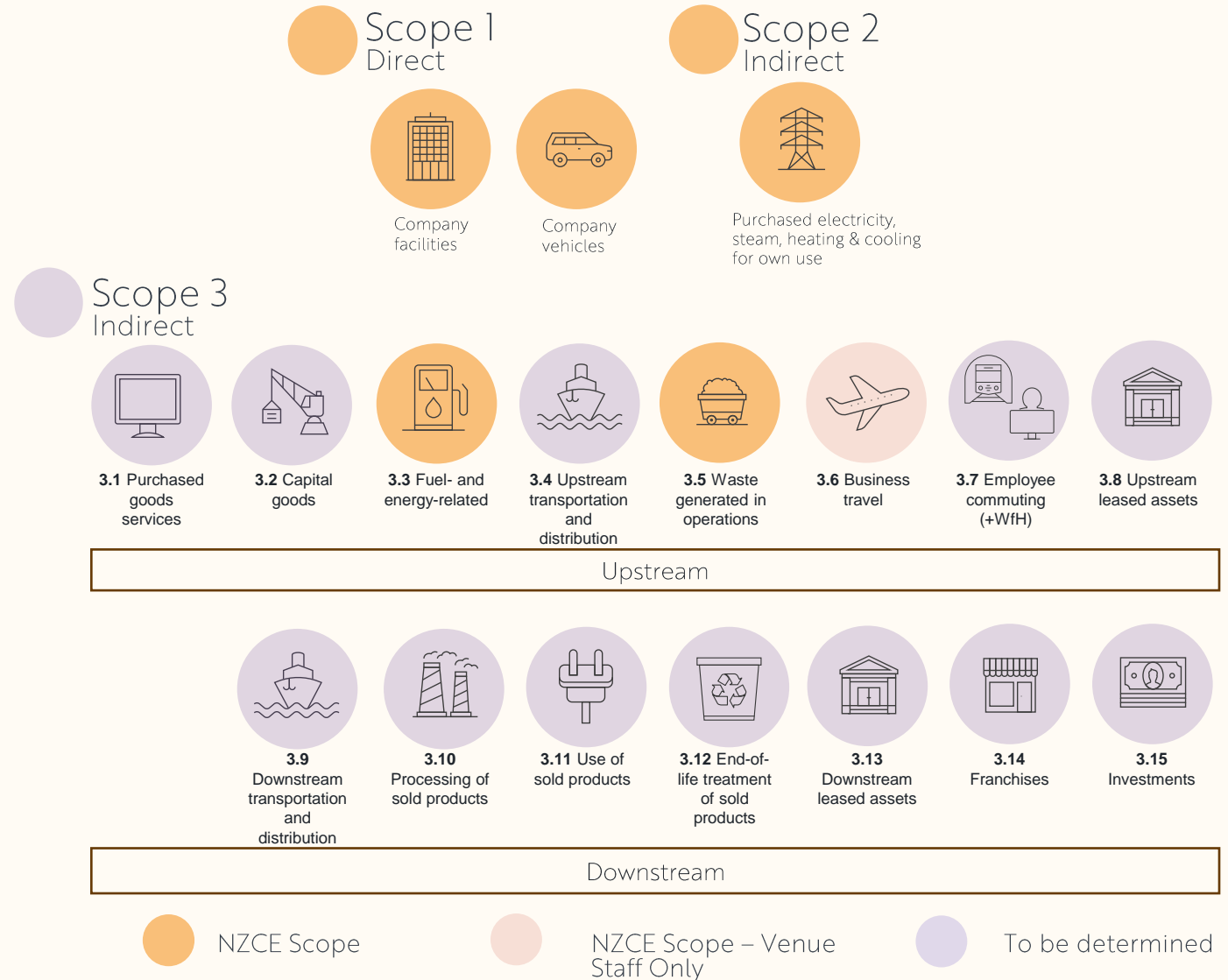
In accordance with the NZCE commitment, the Javits Center boundary for Scopes 1, 2 and 3, aligns with the Green House Gas Protocol. For Javits, Scope 1 and 2 boundaries are clearly defined, and data will be refined as a next step detailed in our data maturity plan. Scope 3 boundaries will be defined as part of a materiality assessment in 2024.

Scope 1 emissions are direct emissions from company facilities and vehicles. The Scope 1 emissions for Javits include natural gas, diesel, and refrigerants.

Scope 2 emissions are indirect emissions resulting from the purchase of electricity, steam, heating or cooling. Javits Scope 2 emissions are associated with purchased electricity.

Scope 3 emissions are the result of activities from assets not owned or controlled by the reporting organization, but that the organization indirectly affects in its value chain. Javits Scope 3 emissions may include several upstream and downstream sources.

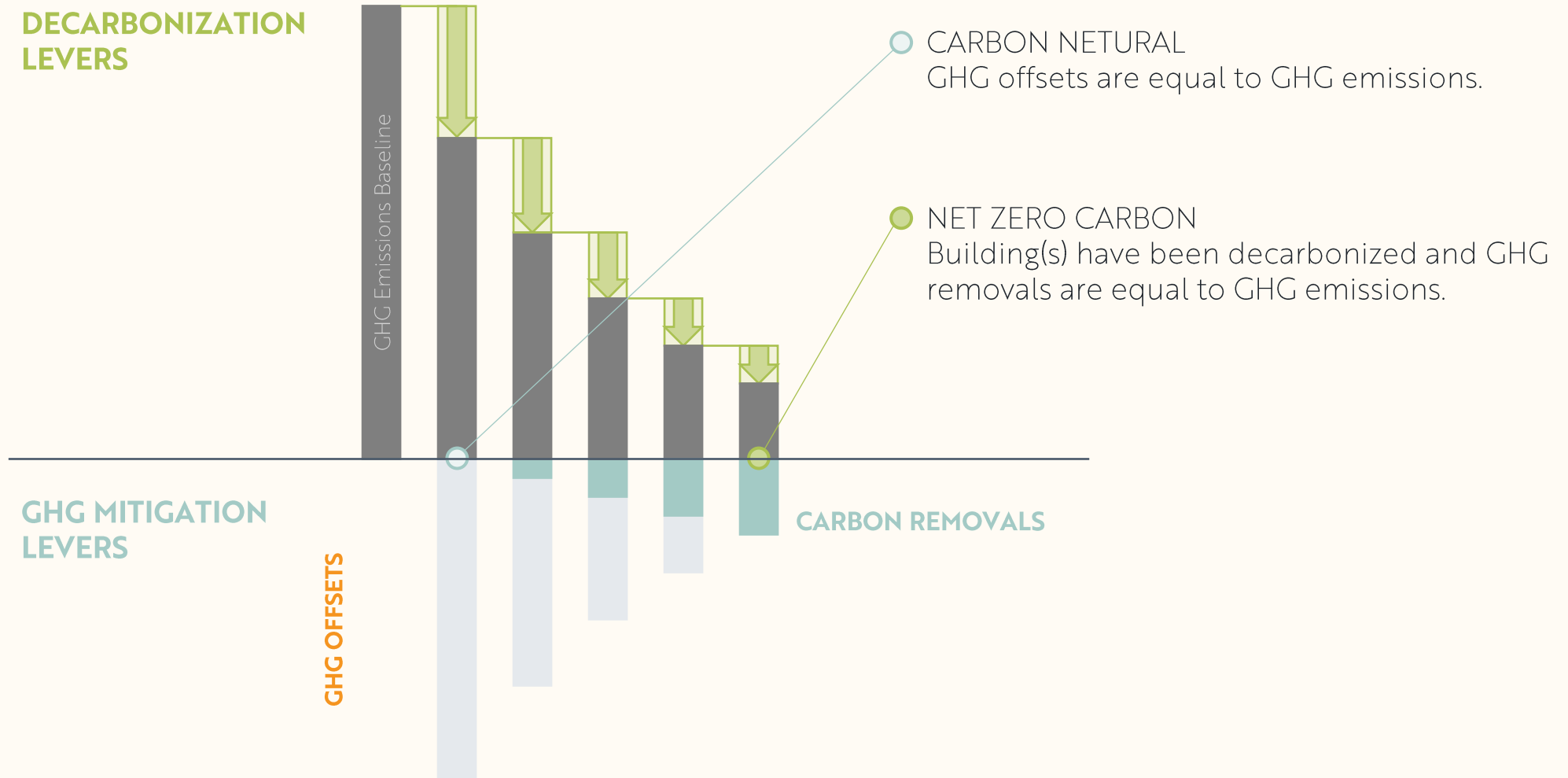
Once the Scope 3 boundary is clearly delineated, Javits will engage with the value chain to identify climate literacy and performance amongst stakeholders, detailing the highest emitters and advocate for reductions.



Net Zero organizations will significantly reduce GHG emissions and offset remaining emissions through permanent carbon removals.

Net Zero is much more stringent than Carbon Neutral.

DECARBONIZATION LEVERS



Javits is refining its GHG inventory, which will be published in 2024. Improved data collection will support regular reporting.

Plan for Data Maturity

To ensure a high level of data quality, Javits will improve collection of primary data and product specific emissions factors. Javits will develop a data management plan with data quality measures to mitigate data risks identified below.

For Scopes 1 & 2

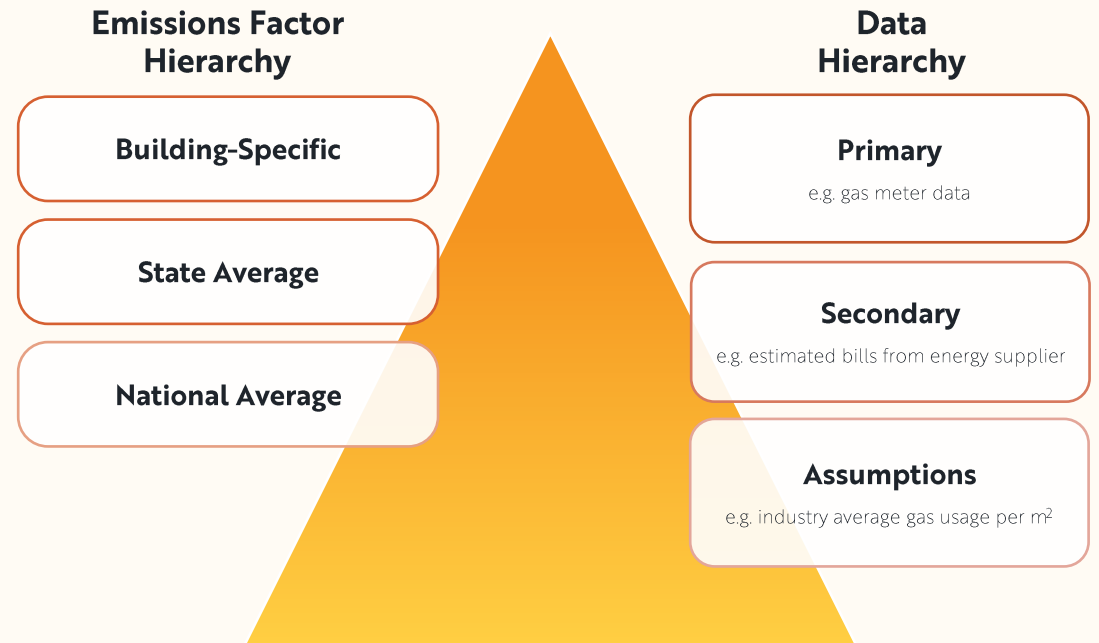
There are known gaps in data collection for Scope 1 emissions related to generators and historical data on previously owned company vehicles (current fleet only includes one owned vehicle).

- Improve data collection and calculation for refrigerant leakage to accurately reflect leakage rates.
- Track generator fuel use directly via volumetric accounting.

For Scope 3

Following the definition of the Scope 3 emissions boundary, Javits will begin to measure and report emissions data. To improve data quality:

- Simplify market-based accounting and shift towards use of supplier-specific factors.
- Identify highest level maturity data available.
- Data completeness checks, uncertainty estimates, and automation



Decarbonizing Scope 1 & 2 Emissions



2030/2050 Vision

By 2050, all electricity the Javits Center's uses will be renewable and all remaining GHG emissions will be offset through high quality GHG removals.

Javits is in a unique position in the urban landscape with the opportunity to install an expansive solar array. By 2030 Javits will have installed over 1.61 MW of solar energy on-site and will explore further options for on-site renewable energy generation. By 2030 Javits will develop and execute a strategy to offset and mitigate the remainder of our emissions needed to meet our targets, in accordance with the Paris Climate Accord.

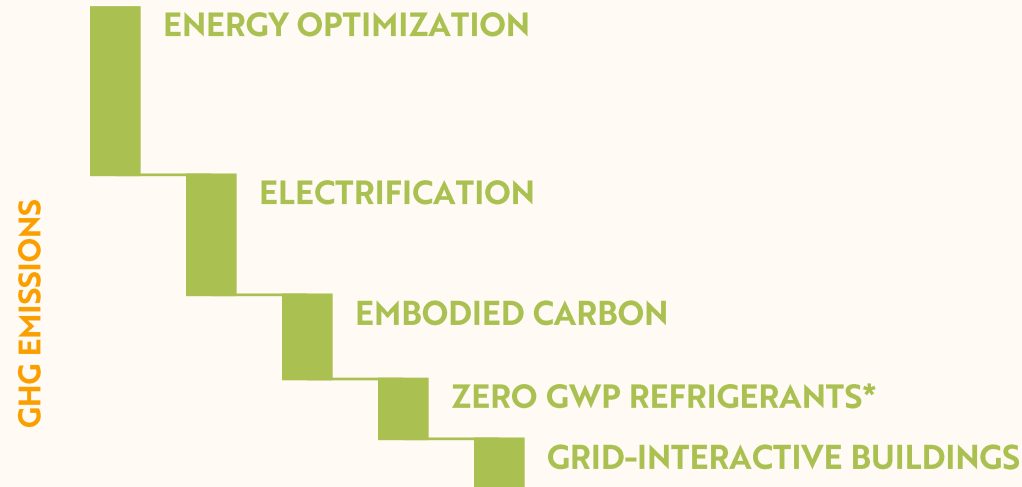
Baseline Activity	2025	2030	2050
Collect Data, Install measures needed to ensure data quality	Reach minimum requirements for measurement and monitoring	Have established feedback loops for improving data quality	Highest quality data possible, robust data quality management program
Establish Baseline Year	Conduct optimization upgrades to lower energy consumption	Show 50% reduction from baseline	100% reduction in emissions through decarbonization levers, offsets, and mitigation

Table 1. Scope 1 & 2 Emissions: Pathway to Net Zero in 2050

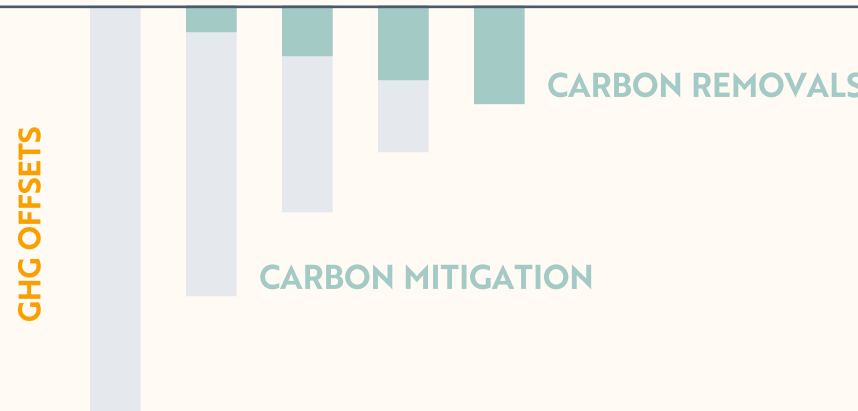


The following decarbonization and GHG mitigation levers will play an important role in the Javits Center's Net Zero journey.

DECARBONIZATION LEVERS



GHG MITIGATION LEVERS



Javits is assessing all options to reach the Net Zero Carbon Events pledge. The levers identified are the steppingstones to decarbonizing assets and reaching net zero carbon targets. The specific levers being prioritized will be further informed following the completion of the GHG inventory.

In 2024 Javits will identify the opportunities available for each lever and develop a detailed roadmap to reach net zero carbon targets for 2030 and 2050.

The following decarbonization and GHG mitigation levers will play an important role in the Javits Center's Net Zero journey.

1. Energy Efficiency & Optimization

The initial step to reach net-zero carbon targets is to assess the existing opportunities to reduce energy consumption by optimizing the building's systems. Javits has gone through extensive renovations and upgrades to reduce energy consumption and will continue to identify opportunities to optimize energy performance.

2. Electrification

The Javits Center is a mostly electric facility, but there are still opportunities to explore further reductions in Scope 1 emissions connected to Natural Gas and Diesel.

3. Embodied Carbon

In the past, the buildings sector has focused on operational energy reduction, driven in part through building regulations, planning requirements, and sustainability assessment rating schemes. The focus on embodied carbon presents an opportunity to reduce the carbon used to harvest, manufacture, transport, and dispose of materials.

4. Refrigerants and F Gases

Javits uses HFCs R-410a and R-22 refrigerants in the buildings mechanical and refrigeration systems. HFCs have been targeted as the next phase of refrigerants to be decommissioned and replaced with natural refrigerants with much less warming potential. Refrigerants are emitted into the environment during the production process, from refrigerant banks due to leakages, and during end-of-life disposal of appliances.

5. Renewable Energy and RECs (NZCE Action 1)

Javits has completed the design of 1.61 MW of solar energy to be installed on the roof of the facility, coupled with energy storage to provide the facility with clean electricity produced on-site. Another opportunity being explored is wind energy.

6. Carbon Offsets & Removals

Carbon offset strategies to reach net-zero carbon include Carbon Mitigation and Carbon Removals. Carbon mitigation entails the assessment of renewable energy on and off-site, including Renewable Energy Certificates (RECs) and Power Purchase Agreements (PPAs). Carbon removal strategies may vary, and the team will assess feasible options through a procurement strategy and plan. GHG offsets and removals will be required for >99% of all buildings.

Decarbonizing Scope 3 Emissions



2030/2050 Vision

Starting in 2024, Javits Center will take steps to drive change across the value chain by collaborating with its partners, suppliers and customers to reduce GHG emissions..

Javits has shown alignment with the action areas and has focused on waste diversion and reduction of food waste through the expanded diversion facility in 2021.

For the remaining Scope 3 emissions, Javits will establish proper data collection strategies to demonstrate compliance. In the coming years Javits will conduct a materiality assessment and identify the Scope 3 boundary, following best practices of the GHG Protocol.

By 2030, Javits will have been collecting the needed data for Scope 3 to track progress and meet the goal of 50% carbon reduction.

Baseline Activity	2025	2030	2050
Identify the boundary of Scope 3 emissions and strategize optimizations.	Measure and verify data. Communicate needs to other parties.	Show measurable progress. All emissions from events at Javits show significant reduction.	Net zero is met through all value chain involvement. >90% of waste diverted from to landfill.

Table 2. Scope 3 Emissions: Pathway to Net Zero in 2050

NZCE Action Area 2: Redesign events to utilize sustainable materials and be waste free

By 2050 events will send zero waste to landfill and all assets and materials will be hired, repurposed, refurbished, recycled or re-used.

NZCE Action Area 3: Source food sustainably, and eliminate food waste

The emissions associated with food and catering at events should be minimized using seasonal, organic and, where appropriate, local products, the elimination of high carbon foods and a circular approach to food production and waste.

NZCE Action Area 4: Move goods and equipment efficiently and transition to zero emissions logistics

The weight of materials and items which are freighted for events is significantly reduced and logistics planning is built around maximum carbon efficiency so that the emissions from logistics are minimized, using low carbon options, with any residual emissions offset in a robust way.

NZCE Action 5: Work with and influence partners in the travel sector to reduce and mitigate the emissions of travel to events

By 2050 travel and accommodation to events will be as low carbon as possible, and any residual emissions will be neutralized using accredited carbon capture or equivalent.

Levers

Scope 3 Boundary

The NZCE provides general guidance for best practices in establishing a boundary for events venues. As a venue, Javits provides energy, water, catering, and venue waste collection to event organizers. Javits will conduct a materiality assessment to determine the proper scope 3 emissions to track in the coming year.

Emissions Source	Venue
Embodied carbon in venue building	Included
T&D losses	Included
Water	Included
Space design and production (stands / booths, carpets, signage, AV, Furniture etc.)	Excluded (unless purchased directly by venue, embodied carbon of production materials)
Paper (site guides, newspapers etc.)	Excluded
Promotional material / merchandise	Excluded
Intangible communications (digital activities, livestream etc. includes emissions from data transfer, serves etc.)	Excluded (Intangible comms used by the venue during day-to-day management / offices would be included)
Production and transportation of food and drink	Included, when provider of catering
Freight transport	Excluded
Staff travel to event / accommodations	Included (own staff only)
Attendee local transport in destination	(Scope 1 if owned vehicles)
Venue generated Waste	Included
Event/Production generated Waste	Excluded
Food Waste	Included (when provider of catering)

Table 3. Venue Scope 3 Emissions (per NZCE)

What's Next?

Taking steps forward and reporting on our progress

Upcoming Net Zero Carbon Activities

In the next phase of the Net Zero Carbon plan, Javits will develop a roadmap to 2050, identifying the strategies and plans to reach near-term and long-term carbon goals.

- ❑ Develop and publish a complete Javits Center GHG inventory
- ❑ Conduct a materiality assessment for Scope 3 emissions
- ❑ Develop Javits Center's renewable energy production and procurement strategy
- ❑ Evaluate and publish opportunities to reduce emissions associated with embodied carbon at the Javits Center



Activities in 2024

Sustainability Report

Javits will produce its biennial Sustainability report in 2024 reflecting activities in 2022 and 2023.

Solar Energy

More than 3,000 solar panels, generating 1.61 MW of solar energy annually, have been installed on the existing and expanded rooftops of the Javits Center, making it the largest rooftop solar farm in Manhattan. Energization is anticipated to be complete by March 2024.

Battery Storage

By the end of 2024 Javits will have installed 3.5 MW of battery storage, providing the convention center with more than 2 gigawatt hours per year of renewable generated electricity.

Renewable Energy Innovations

Javits is exploring the use of wind energy technology to further the resiliency of the building and provide a second source of renewable energy. The project is currently in the R&D phase.



Long-term Actions

Scope 3 and Net Zero Events

Building upon the Sustainable Event Guide developed for organizers, Javits will continue to work to establish best practices for sustainable events and encourage participation in the NZCE for all organizers, service providers, and exhibitors.

Scrubbers on Generators

Scrubbers have been installed on kitchen equipment, but not generators. Javits is exploring options to install scrubbers on all on-site generators to reduce the associated emissions.





Glossary of Terms

The Net Zero Carbon Events Pledge (NZCE): a global industry effort to tackle climate change, reduce greenhouse gas emissions, and improve event sustainability – and participated in the presentation of the pledge at the United Nations Framework Convention on Climate Change’s Conference of the Parties 26, in November 2021.

Greenhouse Gas (GHG): Gases that trap heat in the atmosphere are called greenhouse gases. These include Carbon dioxide (CO₂), Methane (CH₄), Nitrous oxide (N₂O), and Fluorinated gases (common in refrigerants). GHGs are commonly converted to carbon dioxide equivalents or CO₂e to describe different greenhouse gases in a common unit.

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, relative to the emissions of 1 ton of carbon dioxide (CO₂). The larger the GWP, the more that a given gas warms the Earth compared to CO₂ over that time period.

