2024 SUSTAINABILITY REPORT
David L. Lawrence Convention Center

August 2025

TABLE OF CONTENTS

HISTORY 3
- LEED Certifications 4
- Building In Operation Case Study 4

SUSTAINABLE EVENTS 5
- Event Industry Council (EIC) Sustainable Event Standards 5

LOCATION AND TRANSPORTATION 6
- Walkability 6
- Public Transportation 6
- Bicycles And Other Options 6
- Electric Vehicle Charging 6

OUTDOOR SPACES 7
- Riverfront Plaza And 10th Street Water Feature 7
- 4th Floor Rooftop Terrace 7
- 3rd Floor South Green Roof 7
- 4th Floor South Green Roof 8
- Environmental Benefits 8
- Maintenance & Operations 8

WATER 9
- Municipal Water 9
- Wastewater Treatment Plant 9
- Aquifer 9

ENERGY 10
- Heating 10
- Cooling 10
- Ventilation 10
- Natural Ventilation 10
- Daylighting 11
- Energy Efficiency Measures 11
- Energy Audit And Retro-Commissioning 12
- Demand Response 12
- Renewable Energy Purchasing 12

PERFORMANCE AND EMISSIONS 13
- Energy Performance 13
- Water Performance 14
- Total Emissions 14
- Pittsburgh 2030 District 14

INDOOR AIR QUALITY AND HEALTH 15
- Ventilation 15
- Cleaning 15
- Healthy Product Purchasing 15

SUSTAINABLE PURCHASING 16

WASTE AND RECYCLING 17
- Waste Diversion Performance 17
- Waste Reduction And Prevention 18
- DLCC Recycling, Composting, And Donation Entities 18

FOOD AND BEVERAGE 19
- Purchasing 19
- Waste 19
- 4th Floor Rooftop Garden 20
- Sustainable Pittsburgh Restaurant 20

David L. Lawrence Convention Center

HISTORY

Located in downtown Pittsburgh, adjacent to the Allegheny River, the 1.5 million square foot David L. Lawrence Convention Center (DLCC or Convention Center) is a symbol of the City's economic and environmental revitalization. The DLCC opened in 2003 and is owned by the Sports & Exhibition Authority of Pittsburgh and Allegheny County (SEA). The SEA contracts with SMG a/k/a ASM Global (ASM), a professional management company, for the day-to-day operations of the facility.

The DLCC was built as a public investment to attract non-resident attendees to the region and to grow tourism spending in Pittsburgh. With encouragement and support from local organizations, an additional goal was decided upon: to create an innovative and environmentally responsible facility that would showcase the benefits of sustainable building design and operations.

Pittsburgh's philanthropic community played a major role in the development of the DLCC by supporting an international green building design competition for the planning of the convention center. The $750,000 design competition was funded by the Heinz Endowments, the Hillman Foundation, the Claude Worthington Benedum Foundation, the Buhl Foundation, the Richard King Mellon Foundation, and an anonymous foundation.

In February 1999, the Southwestern Pennsylvania Convention Center Design Commission unanimously selected the design proposal of Rafael Viñoly Architects (RVA). Inspired by the "Three Sisters" suspension bridges near the site, RVA's design uses a cable support system to suspend a dramatically sweeping roof. Daylighting, natural ventilation, and water reclamation strategies were implemented throughout the facility to an extent that was unprecedented in the meeting and convention industry during that time. In addition, the DLCC was constructed on the same site as the previous convention center facility which virtually eliminated the need for the construction of additional supporting roads and utility infrastructure.

LEED CERTIFICATIONS

LEED was integrated into the design of the building from its inception. To further the environmental goals of the building, the Heinz Endowments provided $7 million in grants and loans, administered by Green Building Alliance (GBA), for costs associated with green building consultation services, commissioning, and integration of green technologies.

In 2003, the DLCC became the **first convention center to be certified LEED Gold® for Building Design + Construction: New Construction (LEED BD+C)**. The DLCC was one of only seventy-five LEED BD+C certified projects and the largest building to achieve LEED certification at the time.

In 2012, the SEA completed its interior office space, located within the DLCC. The location was previously used for storage. The **SEA Office renovation earned LEED Platinum® for Interior Design + Construction: Commercial Interiors** in April 2013 (LEED ID+C).

Continuing a commitment to sustainability, the DLCC earned **LEED Platinum® for Existing Buildings: Operations and Maintenance** (LEED O+M). The first LEED v2009 O+M certification was earned in 2012 and the building was recertified in 2017.

As LEED evolves into updated versions of the rating system, the bar is pushed higher for the built environment to have more positive environmental outcomes and reduce impacts on greenhouse gas emissions. The DLCC decided to pursue LEED version 4.1 O+M for recertification as it was the newest version of the rating system available when the project was registered. A LEED v4.1 project needs to meet more stringent requirements than a LEED v2009 project and uses USGBC's Arc platform to track performance. In 2023, the DLCC was recertified as **LEED v4.1 O+M Gold**. LEED v4.1 O+M projects need to be recertified every three years and ongoing data collection, indoor air quality testing, and occupant surveys occur annually.

BUILDING IN OPERATION CASE STUDY

The DLCC was the subject of the report titled *David L. Lawrence Convention Center: A Building in Operation Case Study* in 2011. The case study process was initiated to evaluate building performance, facility management, occupant satisfaction, and organizational sustainability. The case study concluded that DLCC's original green design created an organizational identity, resulted in significant energy savings, and generated significant direct spending from "green seeking" events that come to the DLCC.

2024 Department of Energy : Energy Exchange

SUSTAINABLE EVENTS

The sustainable construction and operations of the DLCC attract event organizers who seek such facilities. These green-seeking major events[1] are responsible for more than **$302 million in direct spending since tracking began in 2006** (18.1% of direct spending since 2006).[2]

The DLCC's commitment to sustainability provides events with environmentally-friendly practices at no additional cost.

The DLCC staff coordinates with events on energy saving actions such as setting occupancy hours and conditions with the event schedule and attendee profile to reduce utility consumption. Events are also encouraged to consider sustainable purchasing and waste reduction strategies including using complimentary water stations over bottled water; using sustainable products for event takeaways, signage, and packaging; encouraging attendees to recycle and compost when possible; and working with the food service provider, Levy Restaurants, to use locally grown products and understand the importance of purchasing in bulk.

After the event, an event report provides information and data on a variety of sustainability indicators including waste diversion and energy usage.

EVENT INDUSTRY COUNCIL (EIC) SUSTAINABLE EVENT STANDARDS

The EIC Sustainable Event Standards are a collection of standards developed by over 100 of the industry's leading practitioners (including staff from DLCC) that assess events and industry suppliers on a wide range of sustainability criteria in support of environmental and social responsibility.[3] The standards align closely with the 17 United Nations Sustainable Development Goals. The standards include criteria specific to different industry sectors including: Event Organizers, Accommodations, Venue, Destination, Food & Beverage, Audio-Visual Production, and Exhibition. Certification levels include: Bronze, Silver, Gold, and Platinum. **The DLCC is a Silver certified facility.**

[1] "Major events" are (a) larger events that typically book 18 months and further into the future, (b) require the DLCC's facilities (i.e. there is no other local venue that can physically accommodate the event), and (c) use a significant number of hotel rooms.

[2] Source: VisitPittsburgh

[3] https://insights.eventscouncil.org/Sustainability/Sustainability-Standards-and-Registry

LOCATION AND TRANSPORTATION

The DLCC is located in Downtown Pittsburgh, within 500 miles of more than half of the U.S. population and less than a ninety-minute flight from half of North America's population. The City is less than six hours travel by car or train to nine states, Washington, D.C., and Canada.

WALKABILITY

The DLCC's downtown location provides access to accommodations, dining, entertainment, and recreation. Pittsburgh's compact layout means major destinations can be reached in a 25-minute walk. The City also boasts 24 miles of riverfront trails, which include the DLCC's Riverfront Plaza.

PUBLIC TRANSPORTATION

Pittsburgh Regional Transit (PRT) provides public transportation options throughout the region. The DLCC is within a ten-minute walk to over 20 bus and light rail routes that stretch to various parts of the City and region, including the Pittsburgh International Airport.

BICYCLES AND OTHER OPTIONS

Pittsburgh's network of bike lanes can be easily accessed from the facility. Five secure bicycle parking locations are available at the DLCC, providing visitors with an option for storing their bikes. Additionally, the city's bikeshare program, POGOH, offers 100 stations dispersed throughout Pittsburgh, including one located at the DLCC. This station includes e-assist bikes, providing riders with an eco-friendly and efficient mode of transportation.

ELECTRIC VEHICLE CHARGING

In 2012, the DLCC installed in its garage the first two free publicly accessible universal EV charging stations in Downtown Pittsburgh. In 2018, the DLCC installed four Tesla chargers, and two additional universal EV charging units at the garage. The DLCC's EV stations are on the registry of EPA Alternative Fuel Data Center vehicle chargers to assist EV drivers in finding charging stations.

Riverfront Plaza

OUTDOOR SPACES

Ecologist E. O. Wilson introduced the term "biophilia" to describe an intrinsic benefit to reconnecting humans to the environment. At the DLCC, proximity to vegetated spaces on an urban site has resulted in both environmental benefits and a biophilic advantage that enhances the visitor experience.

RIVERFRONT PLAZA AND 10TH STREET WATER FEATURE

The Riverfront Plaza links two previously disconnected components of Pittsburgh's 22-mile Three Rivers Heritage Trail, providing a safe route for walkers, bikers, and joggers to travel between the City's Strip District commercial area and Point State Park. The Riverfront Plaza also provides a docking area for waterway travelers. The landscaping alongside the Riverfront Plaza, as well as along the Convention Center's eastern side located on 11th Street, is exclusively composed of plants native to southwestern Pennsylvania.

The 10th Street Water Feature invites people to the Allegheny River from Penn Avenue. It runs under the Convention Center and descends 17 feet, with waterfalls and fountain pools on either side. In 2024, the water feature resumed operation after not operating from 2019-2023.

4TH FLOOR ROOFTOP TERRACE

The 4th Floor Rooftop Terrace was originally a 60,000 square feet continuous concrete slab. It was replaced in two phases - the first phase was completed in Spring 2020 and the second phase was completed in Summer 2022. The new space features herb and vegetable gardens, edible plants, hops, pollinator plants, shrubs, seating, and a Monarch Waystation that provides habitat for monarch butterflies.

3RD FLOOR SOUTH GREEN ROOF

The 3rd Floor South Green Roof is a 20,000 square feet space featuring a mix of sedum species, a meadow of native perennials, and a plaza for outdoor receptions. The 3rd Floor South Green Roof was completed in 2012.

10th Street Water Feature

4th Floor Rooftop Terrace

4th FLOOR SOUTH GREEN ROOF

The 4th Floor South Green Roof is located outside of meeting rooms 401 to 405. Three skylights on this roof provide views from the ballroom prefunction area below. This roof was originally part concrete slab and part ballasted. It was replaced in 2020 and now provides 8,460 square feet of green roof, pavers, and a weather station (to provide additional data for the operations of the building).

ENVIRONMENTAL BENEFITS

Heat island effect occurs primarily during the summer months when sunlight is absorbed by roofing and paving and then re-radiated as heat. This causes urban areas to warm resulting in increased cooling costs, air pollution, and health issues.[4] The use of vegetation or highly-reflective surfaces, like the DLCC's 250,000 square feet stainless steel roof, can mitigate the heat island effect.

Landscaped areas also mitigate rainwater runoff issues. Studies have shown that green roofs in Pennsylvania's climate retain 50% of rainfall on average, with up to 100% retention in the summer[5], which reduces runoff into the overburdened municipal sewer system.

Using the EPA National Stormwater Calculator, the stormwater diverted by the planted rooftops at the DLCC is approximately 233,000 gallons per year.

Through root intake processes, evaporation and transpiration, plants remove pollutants from the air and water. Based on information provided by the US EPA, it is calculated that the vegetated roofs at the DLCC remove more than 1,300 pounds of particulate matter from the air annually, equivalent to the annual emissions of 490 passenger vehicles.

MAINTENANCE & OPERATIONS

All landscape maintenance activities adhere to the DLCC's Integrated Pest Management, Erosion Control, and Landscape Management Plan. Landscaping is hand-weeded, and waste is collected for composting. Fertilizers are rarely used, and less hazardous products are used when needed. Permanent irrigation systems for outdoor spaces are fed by the aquifer and only used when conditions require it or to establish new plantings. The aquifer is also the water source for the 10th Street Water Feature.

[4] Heat Island Effect. US EPA, n.d. Source: https://www.epa.gov/heat-islands

[5] Penn State Center for Green Roof Research. "Stormwater Quantity." Source: https://plantscience.psu.edu/research/centers/green-roof/research

WATER

The DLCC, unlike a typical building, has multiple sources of water serving the needs of the building and its occupants. The DLCC uses municipal water, filtered aquifer water, and recycled wastewater. In 2024, 22% of the water used at the DLCC was municipal water and 61% was from the aquifer, and 17% was reclaimed from the on-site wastewater treatment plant. Figure 1 shows the 2024 water sources at the DLCC.

All plumbing fixtures and fittings meet plumbing code requirements that align with LEED standards. Fixtures in all restroom facilities are equipped with sensor controls.

MUNICIPAL WATER

Potable municipal water used at the DLCC is supplied by the Pittsburgh Water and Sewer Authority (PWSA). This water is used for drinking fountains, faucets, kitchen, and laundry purposes.

WASTEWATER TREATMENT PLANT

The DLCC has a 50,000-gallon on-site wastewater treatment plant that collects and treats wastewater from sanitary and municipal uses. This water is treated and re-used for toilet flushing only. The plant's treatment components include a sump tank, aerobic digester, carbon filter system, and ultraviolet disinfection system. In addition to reducing municipal water use, recycling wastewater on-site helps to mitigate combined sewer overflows into nearby streams and rivers, benefiting water management in the Pittsburgh region. In 2024, the wastewater treatment plant was managed through a contract with Veolia Water North America (Veolia).

The wastewater treatment plant requires a certain amount of activity to allow the microbes to survive. With limited activity due to the

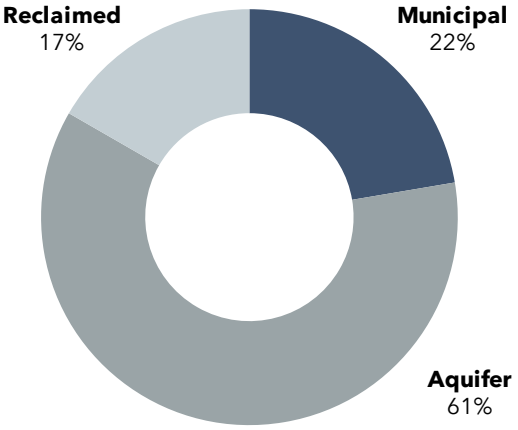


Figure 1. 2024 Water Sources

Covid-19 pandemic, the plant was shut down from May 2020 through November 2022. During that time, water pumps were replaced, and other needed maintenance was performed. The plant was fully operational in 2024.

AQUIFER

The Wisconsin Glacial Flow aquifer, sometimes referred to as Pittsburgh's "Fourth River," is located approximately 50 feet below the DLCC. Aquifers are geological formations containing or conducting ground water. Aquifers, when correctly managed, recharge through groundwater infiltration from precipitation.

The aquifer provides water for the cooling towers, the 10th Street Water Feature, and irrigation for vegetated spaces to establish plants and during periods of drought.

The use of the aquifer conserves municipal water. Every effort is made to withdraw water from the aquifer in a responsible way that allows for adequate replenishment. In 2021, the aquifer well was cleaned and rehabilitated, and the well pump was replaced. The variable frequency drive for the pump was replaced in 2022.

ENERGY

The DLCC is continually subject to variations in occupancy and energy demand. Occupancy may range from a few visitors in a meeting room to thousands occupying all five exhibit halls. The energy profile of the building also varies greatly from year to year. DLCC technicians minimize energy waste by carefully programming HVAC (heating, ventilation, and air conditioning) and lighting schedules through the building automation system to match each client's needs. HVAC zoning capabilities and the use of variable frequency drives allow HVAC levels to be adjusted incrementally. Lighting systems are controlled and customized to event and safety needs.

HEATING

The building uses district steam for heating, which is provided by Cordia. The steam is cycled through the buildings to heat air which is released through the air handling units. As the heat is utilized, the steam condenses into liquid condensate and is returned to the plant to be reheated and recirculated. The DLCC is equipped with a pump system to return 180°F condensate water, increasing the efficiency of the plant by providing hot water for its processes. Due to an issue with the district system condensate return line, Cordia was not able to receive condensate from the DLCC beginning in October 2023. Cordia repaired the issue in October 2024.

COOLING

Cooling is provided by an on-site chiller plant that is operated through a contract with Veolia. Water cooling is delivered to spaces through cooling coils in the air handling units. The plant consists of two 1,500-ton centrifugal chillers, a 750-ton centrifugal chiller with a variable frequency drive, and two 6,000-gallon capacity cooling towers.

The DLCC does not use equipment containing chlorofluorocarbons (CFCs), which are known to damage the ozone layer. Chilling equipment, primarily for food and beverage, uses hydro-chlorofluorocarbons (HCFCs) and hydrofluorocarbons (HFCs), which are less damaging and balance potential environmental impact with efficiency.

VENTILATION

Ventilation is essential to maintain good indoor air quality (IAQ) levels, which improve occupant comfort, increase productivity, and promote general well-being.[6] Increasing ventilation reduces indoor air contaminants and IAQ-related health issues.

Each air handling unit undergoes maintenance every 3,000 hours of runtime to keep all components working properly. Key IAQ-related factors such as CO_2 levels and temperature are monitored by the building automation system. Real-time adjustments can be made to maintain the temperature set-points needed for the event. If contaminants exceed acceptable levels, 100% outside air is brought into the system until IAQ is restored.

NATURAL VENTILATION

The DLCC has a natural ventilation system that delivers outdoor air to Exhibit Halls A, B, and C when weather conditions are suitable. Operable intake louvers are located along all four walls of the building between the second and third floor level. Cooler outdoor air is directly ducted to the exhibit halls at floor level and released through exhaust louvers at the higher end of the building's curved roof. This process is commonly referred to as the "chimney effect" or "stack effect." When the

[6] US Green Building Council LEED for Existing Buildings: Operations and Maintenance v4 Reference Guide

natural ventilation system is in operation, airflow and building pressure are automatically recorded by the building automation system. Mobile CO_2 monitors that communicate with the building automation system (placed in the breathing zone for each event layout) are used with the natural ventilation system to ensure IAQ standards are maintained.

Natural ventilation is used when the outside air temperature is between 45°F and 64°F, and during move-in/ move-out days. Using the natural ventilation system enhances IAQ and conserves energy by eliminating the need for mechanical heating and cooling. In 2024, the natural ventilation system was used for 1,315 hours during event days.

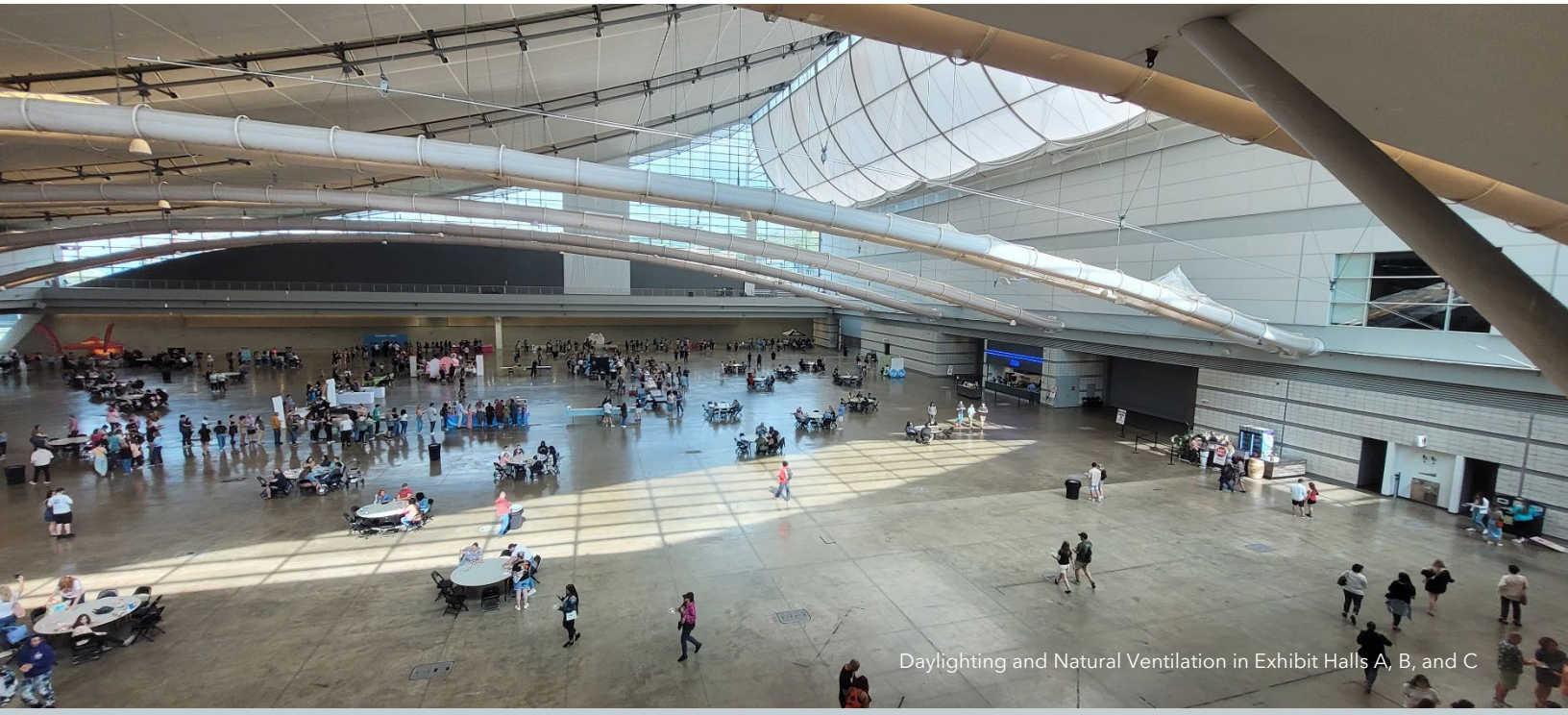
DAYLIGHTING

The DLCC was the first convention center in the world to implement daylighting on an extensive scale, departing from the typical "black box" convention center model. 85% of the regularly occupied spaces in the building can provide natural daylighting, reducing the need for artificial lighting. For example, Exhibit Halls A, B, and C can be lit entirely by daylight during daytime hours.

ENERGY EFFICIENCY MEASURES

The DLCC is committed to continuous improvement in energy efficiency. When determining whether to undertake energy efficiency improvements, special consideration is given to projects that qualify for rebates such as the PA Act 129 incentive funds. PA Act 129 requires electric distribution companies in Pennsylvania to reduce energy consumption across their service territory. Under PA Act 129, Duquesne Light provides a rebate for certain projects that provide electricity savings.

The DLCC also participates in a PJM (regional grid transmission organization) program that gives additional rebates for projects which result in a permanent load reduction. Duquesne Light and PJM have provided partial reimbursement for the following DLCC projects:



Daylighting and Natural Ventilation in Exhibit Halls A, B, and C

- Wastewater treatment plant control system upgrade
- Chiller plant controls upgrade
- Building automation system upgrade
- Chiller plant reconfiguration
- Parking garage lighting upgrade
- 10th Street Water Feature lighting upgrade
- Local cooling units
- Back of house lighting upgrades
- Natural ventilation system repairs
- 10th Street and Ft. Duquesne Blvd roadway lighting
- Air compressors
- Heat exchanger replacement
- Board Room lighting upgrade
- Exhibit Hall lighting upgrade
- Retro-commissioning

ENERGY AUDIT AND RETRO-COMMISSIONING

As part of the LEED v4.1 O+M recertification process, an ASHRAE Level 2 energy audit was completed in 2022. The energy audit included data analysis, on-site investigation and interviews, and evaluation of existing control sequences. The report identified both retro-commissioning measures, low-cost measures focused on the building automation system programming to achieve immediate savings, and energy conservation measures which are more cost intensive upgrades.

The retro-commissioning measures were implemented in May 2023 and resulted in verified savings eligible for the Duquesne Light rebate program.

DEMAND RESPONSE

The DLCC participates in two demand response programs. Demand response is a program to lower electricity consumption during high usage days to reduce stress on the electric grid that can cause brown- and black-outs. Through financial incentives, large scale users of electricity are asked to cut down on electricity usage (including for cooling) during key hours of peak usage days. In 2024, the DLCC participated in the Emergency Load Response Program for both summer and winter seasons through Enel X North America, Inc. and in a Synchronize Reserves Program through Voltus, Inc.

RENEWABLE ENERGY PURCHASING

Since 2012, the SEA, City of Pittsburgh, PWSA, and others (referred to as the Western PA Electricity Consortium, WPEC), have entered into aggregated electricity procurement agreements with goals to reduce costs, integrate renewable electricity, and ensure price stability. In July 2021, Enel X was engaged to advise WPEC on electricity purchases. At the same time, WPEC executed a memorandum of understanding with Direct Energy as its electricity supplier and established a PJM Subaccount.[7] Establishing a PJM Subaccount provides cost savings, improved control and flexibility, and transparency in the purchase of electricity.

In September 2023, WPEC executed a six-year contract to purchase renewable energy credits (RECs). This was a critical step in achieving WPEC's goal to purchase 100% renewable energy by 2030. In 2024, the RECs covered approximately 38% of the DLCC's annual electricity usage.

[7] PJM (Mid-Atlantic Independent Grid Operator) coordinates the movement of wholesale electricity in all or parts of 13 states and the District of Columbia. PJM operates several types of competitive wholesale markets through which large volumes of electricity are bought and sold.

PERFORMANCE AND EMISSIONS

Energy and water performance are measured by site energy use intensity (EUI, the total annual energy consumed in kBtu per gross square foot) and water use intensity (WUI, the total annual potable municipal water consumed in gallons per gross square foot).

The number and types of events can significantly impact energy and water use performance. However, the building has a base load for lighting and HVAC that is required regardless of events. While overall energy usage may increase with an increase in visitors, the usage per visitor becomes more efficient as attendance numbers rise.

Seasonal changes also influence performance, including the electricity used to produce chilled water in warmer months and the steam used in colder months. Heating Degree Days (HDD) and Cooling Degree Days (CDD) (the monthly sum of daily average temperature differences above or below 65°F) help track the impact of outdoor temperatures on indoor energy usage. While the use of steam for heat and electricity for air conditioning generally fits along the CDD and HDD fluctuations, there are also some months where the degree days do not correlate with energy usage, especially in shoulder months that have both cool and warm weather. In these cases, an especially warm day may spike electricity usage for an otherwise cooler month if it coincides with high building usage. A higher number of CDDs also typically requires higher cooling tower water usage.

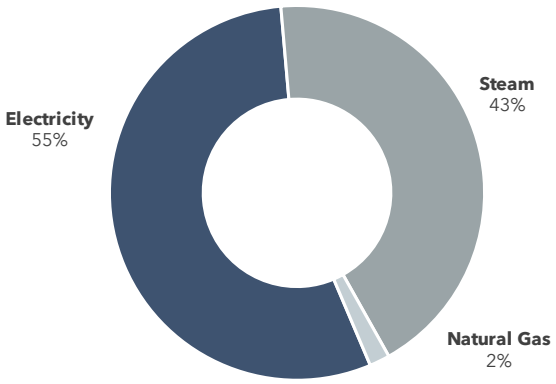


Figure 2. 2024 Energy Sources

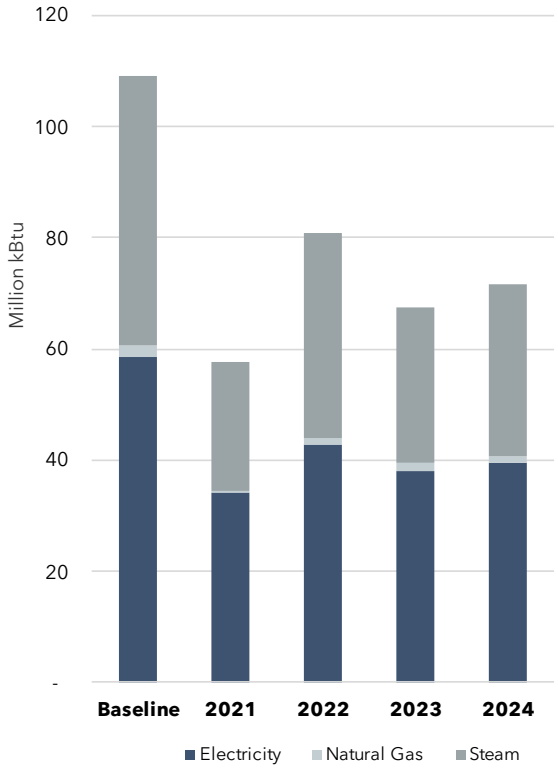


Figure 3. Energy Use

ENERGY PERFORMANCE

The total electricity use in 2024 (lighting, HVAC, plug loads, water heaters, etc.) was 11.6 million kWh. Approximately 20% of total electric use was for the chilled water plant operation. The total steam use in 2024 (heating) was 25,980 Mlbs. The total natural gas use in 2024 (cooking) was 1,220 mcf.

The 2024 EUI was 59.4 kBtu/sqft, a 34% reduction from the DLCC's 2004 baseline year.

WATER PERFORMANCE

Water usage in 2024 continued to trend toward aligning with pre-Covid-19 patterns. The wastewater treatment plant was operational in 2024 and the 10th Street Water Feature also resumed operation. Aquifer water usage for irrigation in 2024 was higher than previous years due to the establishment period for the 4th Floor Rooftop Terrace plantings.

The total water use in 2024 was 13,290,000 gallons. Total municipal water use (drinking and cooking water, faucets, and laundry) was 2,968,000 gallons. The total aquifer water use (cooling towers, irrigation, and 10th Street Water Feature) was 8,105,700 gallons. The total reclaimed water use was 2,216,300 gallons.

The 2024 WUI was 2.5 gal/sqft, an 80% reduction from the 2006 baseline year.

TOTAL EMISSIONS

The DLCC calculates annual greenhouse gas (GHG) emissions resulting from building energy consumption using the GHG Protocol methodology.[8] The DLCC strives to reduce impact by reducing total emissions.

The originally predicted performance from the energy model was 15,800 MT CO_2e. The 2004 actual performance was 15,400 MT CO_2e. The market-based emissions for 2024 were 5,400 MT CO_2e.

Since 2004, the DLCC saved approximately 94,000 MT CO_2e from baseline, equivalent to the annual energy use of more than 12,400 homes.

[8] The GHG Protocol is the most widely used and accepted emissions accounting methodology. More information may be found at ghgprotocol.org

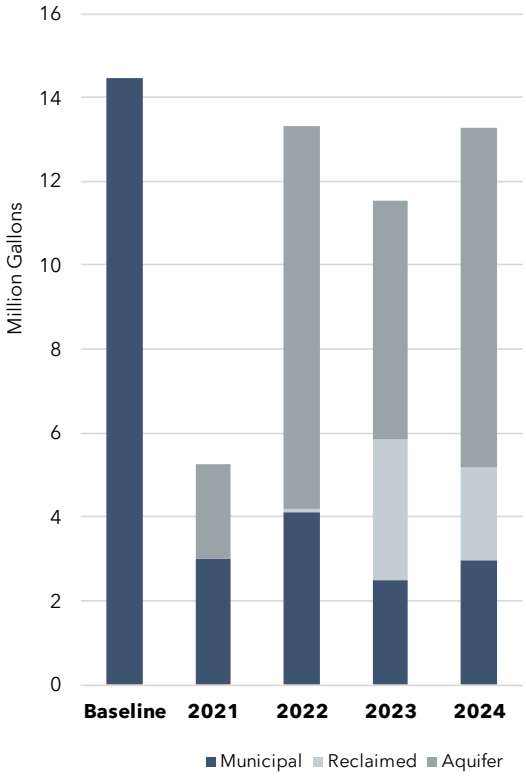


Figure 4. Water Use

PITTSBURGH 2030 DISTRICT

The Pittsburgh 2030 District[9] is a collaboration of property owners working to reduce carbon emissions, energy and water use, and improve indoor air quality. The 2030 District is facilitated by Green Building Alliance (GBA). **The SEA, as the building owner of the DLCC, is a founding partner of the 2030 District.**

Participating properties pledge to work toward a 50–65% reduction in carbon emissions by 2030, with a long-term goal of zero emissions by 2040. The DLCC's emissions baseline, based on 2004 performance, is 13.6 $kgCO_2e$/sqft. **In 2024, the emissions intensity was 4.4 $kgCO_2e$/sqft, a 67% reduction from baseline.**

[9] https://gba.org/initiatives/pittsburgh-2030-district/

INDOOR AIR QUALITY AND HEALTH

The DLCC is committed to the health and safety of visitors and employees. Creating an environment with high indoor air quality (IAQ) has been a priority since the initial design and construction of the building.

VENTILATION

All mechanical air-handling units are maintained and tested to ensure the equipment is functioning properly. Indoor air quality indicators like CO_2 levels and temperature are continuously monitored by the building automation system. If contaminants exceed acceptable levels, 100% outside air is introduced into the space to flush out contaminants. Additionally, Exhibit Halls A, B, and C are capable of being naturally ventilated with outdoor air under certain conditions. Ventilation systems are further described in the ENERGY section of the report.

The DLCC uses MERV 13 antimicrobial air filters. These filters are designed to effectively remove very fine particles from the air while controlling microbial growth such as fungus, mold, and bacteria.

CLEANING

The DLCC's Green Cleaning Policy and Plan specifies the use of sustainable cleaning products, including those which meet applicable Green Seal standards. These products are bio-based, made of biodegradable content, and/or have low/no volatile organic compound (VOC) concentrations. Green Seal standards are based on life cycle research of environmental impacts and are recognized by LEED.

Sustainability standards are also followed for cleaning equipment. All cleaning equipment purchased meets one or more sustainability criteria. Cleaning equipment is serviced regularly to ensure that the equipment continues to operate for optimal safety and efficiency as well as to maximize life-span.

HEALTHY PRODUCT PURCHASING

The DLCC reduces air pollutants by prioritizing healthy product purchasing. VOCs, commonly found in paints, adhesives, and furniture, are a source of IAQ-related health issues[10]. During the DLCC's construction, low-VOC materials were installed to prevent the accumulation of harmful chemicals. In accordance with LEED and as a continuation of the commitment to health, the DLCC's Sustainable Purchasing Policy requires products, such as paint, used during facility maintenance adhere to the VOC limits set forth by the South Coast Air Quality Management District (SCAQMD).[11]

[10] "Volatile Organic Compounds." An Introduction to Indoor Environmental Air Quality (IAQ). US EPA, 03 May 2012.

[11] http://www.aqmd.gov/home/rules-compliance/rules/scaqmd-rule-book

SUSTAINABLE PURCHASING

The DLCC's Sustainable Purchasing Policy quantifies purchasing practices and sets minimum standards for all purchases whenever possible. The standards are based on sustainability criteria for each purchasing category aligning to LEED standards.[12] The policy covers all purchases necessary for the DLCC including office supplies, furniture, electronics, lighting, and cleaning products. Criteria for each category, along with the performance goal, are listed in Figure 5 (food and beverage information is provided on page 19).

Whenever practical, the DLCC purchases goods that are manufactured within a 100-mile radius of the DLCC in order to support the local economy and reduce transportation emissions. During the event planning process, clients are also encouraged to use local suppliers to reduce the environmental impact from their operations.

Category	Criteria	Goal*
Ongoing**	• 10%+ post-consumer and/or 20%+ post-industrial content • 50%+ rapidly renewable • 50%+ materials harvested, extracted, and processed within 500 miles • 50%+ FSC-certified products • Uses rechargeable batteries	50%
Furniture	• 10%+ post-consumer and/or 20%+ post-industrial content • 70%+ salvaged • 50%+ rapidly renewable • 50%+ materials harvested, extracted, and processed within 500 miles • 50%+ FSC-certified products	40%
Electronics	• Energy Star-labeled products • Electronic Product Environmental Assessment Tools (EPEAT) bronze-rated or better • Equipment and vehicles which replace conventional gas-powered equipment	40%
Cleaning Products	• Green Seal or Environmental Choice standard • EPA's Comprehensive Procurement Guidelines • USDA Certified Bio-based • Does not exceed the VOC limits specified by the California Code of Regulations	60%
Cleaning Equipment	• CRI Green Label or Seal of Approval • Operating sound levels less than 90 dBA (70 dBA for vacuum cleaners) • Equipped with filters for capturing fine particulates • Uses gel batteries	100%
Facility	• Paints and sealants meet the applicable Green Seal standard or VOC limits set by the South Coast Air Quality Management District • 10%+ post-consumer and/or 20%+ post-industrial content • 70%+ salvaged • 50%+ rapidly renewable • 50%+ materials harvested, extracted, and processed within 500 miles • 50%+ FSC-certified products	50%

* Each goal is based on the percentage of annual purchases within the category that meet at least one of the sustainability criteria

** Ongoing consumables are goods regularly used and replaced through the course of business. These include paper, toner cartridgers, binders, batteries, and desk accessories. Food and beverage are excluded from this category.

Figure 5. Sustainable Purchasing Criteria

[12] Per the DLCC's LEED O+M certification, up to 10% of the building's square footage can be exempt from the Sustainable Purchasing credit as the facility includes outside vendors whose purchases are not controlled through ASM.

WASTE AND RECYCLING

Reducing, re-using, and recycling is a cornerstone of the DLCC's sustainability efforts.

Diversion rate is the percentage of total waste leaving the building that goes to a non-landfill facility, such as recycling, donation, or composting. While ongoing improvements to the recycling plan have increased diversion rates, the reduced capabilities of local recycling entities to recycle glass continues to affect performance. Since the program's inception, the DLCC has diverted over 3,300 tons of recyclable, compostable, and donation worthy waste from landfills.

Waste is collected at stations throughout the DLCC and brought to a single point to be sorted into compost, recycling, and landfill. This ensures that waste diversion tracking is accurate, and that no waste leaves the building in uncontrolled methods.

DLCC management communicates with the recycling entities and conducts on-site visits to confirm that waste management practices meet the DLCC's sustainability standards.

WASTE DIVERSION PERFORMANCE

Waste is diverted from the landfill to recycling, composting, and donation facilities. The rates of diversion are tracked throughout the year and reported based on several major categories.

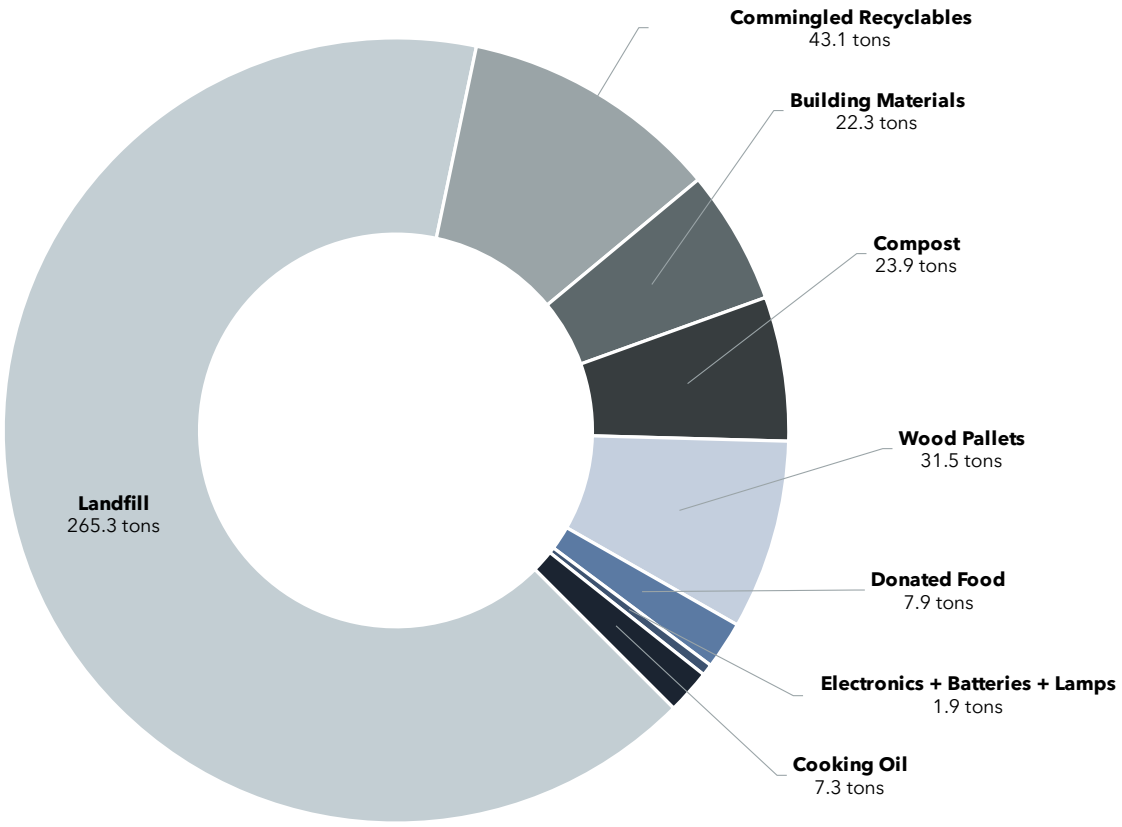


Figure 6. 2024 Waste Performance

In 2024, 265 tons of waste were sent to landfill and 138 tons of waste were diverted away from landfill, resulting in a diversion rate of 34%.

WASTE REDUCTION AND PREVENTION

Source reduction, or waste prevention, focuses on reducing packaging and potential for waste, as well as using more durable goods. The DLCC's food and beverage operations buy in bulk and require reduced packaging options for products.

To meet recycling and composting goals, careful planning on both sides of the client-facility relationship is required. Diversion rates are dependent on the volume and type of waste generated at each event or by DLCC building improvement. During pre-event meetings, event planners are encouraged to include reusable and/or recyclable materials in their own purchasing and operating decisions.

Public shows and trade shows with unusual waste streams pose the greatest challenge to the waste diversion program. Proper planning for diversion methods and for adequate labor is required. Strategies for diverting unusual materials are considered prior to the event.

DLCC RECYCLING, COMPOSTING, AND DONATION ENTITIES

AgRecycle: Compostable items such as food scraps, serve-ware, paper, and landscaping waste

Construction Junction, Habitat for Humanity, Free Store, Off the Floor: Usable construction waste, furniture, usable lighting, carpet scraps, surplus building supplies, furniture

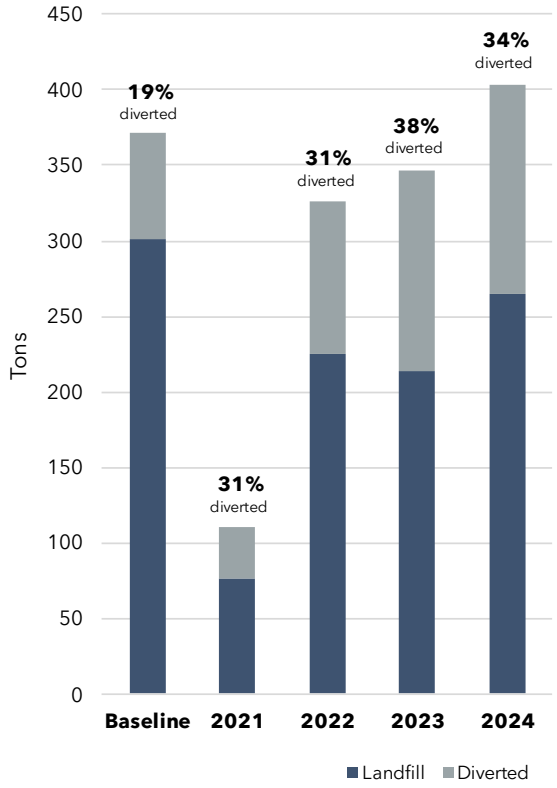


Figure 7. Waste Diversion

CyberCrunch / ITDI E-Cycling: Computers and monitors, small electronics, batteries, lamps, through August 2024 managed by CyberCrunch, changed to ITDI E-Cycling in September 2024

Greater Pittsburgh Community Food Bank, 412 Food Rescue, and Jubilee Soup Kitchen: Surplus prepared food

Largent: Pallets

New Market Waste Solutions: Cooking oil

Waste Management: Landfill waste, commingled recyclables, cardboard, and baled plastic films

Vegetables from 4th Floor Rooftop Garden

FOOD AND BEVERAGE

Food and beverage service at the DLCC is provided by Levy Restaurants. Levy is an essential partner in the sustainability efforts at the DLCC.

PURCHASING

Levy uses sustainable food and beverage products and employs sustainable practices for DLCC events whenever possible. Sustainable food and beverages are those that are organic, produced within a 100-mile radius of the site, and/or meet equitable harvesting standards. In 2024, 41% of food and beverage purchases were local. This included purchases from 25 local vendors.

In May 2023, the DLCC replaced plastic water bottles with aluminum water bottles for the entire food and beverage operation. **The use of aluminum water bottles eliminated more than 88,000 plastic water bottles in 2024.**

Additionally, 90% of Levy's cleaning products were ecologically friendly and 82% of the disposable serve-ware used was compostable.

WASTE

Levy contributes to the waste diversion efforts at the DLCC by separating waste in kitchens, concession stands, and catering areas, recycling cooking oil, purchasing compostable service ware, and donating food.

In May 2023, Levy implemented a company-wide program, Waste Not 2.0, to enhance their waste reduction and diversion efforts. Waste Not 2.0 allows Levy staff to track types of kitchen food waste and identify waste reduction opportunities. In 2024, all kitchen food overproduction and waste were either able to be donated to local food pantries or composted.

An aerobic digester was purchased in March 2024. The digester utilizes a biological process to break down organic waste into a liquid that goes down the drain and requires no additional handling. A tracking system for the digester was implemented in 2025.

In 2024, 7.9 tons of food were donated to local food pantries, and 7.3 tons of cooking oil were recycled.

4th Floor Rooftop Garden

4th FLOOR ROOFTOP GARDEN

Levy maintains rooftop planters to grow herbs and vegetables which are served during catered events. The rooftop garden reopened in May 2022 with the renovated 4th Floor Rooftop Terrace and consists of nine garden beds that are planted annually.

The DLCC partners with Chatham University's Agroecology Department to design and maintain the planting beds. The students create a theme for each planting bed to engage visitors in the ways that food can build relationships and honor heritage. The themes for the planter boxes in 2024 included: African Diaspora Garden; Honoring Ukraine; Lettuce Grow; Little Italy; Picklesburgh; Peppers, Peppers, Peppers; Strawberry Patch; Three Sisters; and Work of Change.

The 4th Floor Rooftop Terrace also features 5 hop trellises each with 8 hanging points. The hops are used in North Country Brewing's Rooftop Hops beer, which is served at banquets and shows at the DLCC. Approximately 8 pounds of hops were harvested in 2024.

SUSTAINABLE PITTSBURGH RESTAURANT

As a program developed by Sustainable Pittsburgh, a Sustainable Pittsburgh Restaurant demonstrates a commitment to managing the social and environmental impacts of its operations as a central strategy for business success. The designation levels for the Sustainable Pittsburgh Restaurant program are Bronze, Silver, Gold, and Platinum and are based on comprehensive sustainability performance across categories and actions. The actions include waste prevention, energy and water efficiency, food and product sourcing, and promoting equity within the restaurant industry, food system, and community.

The DLCC food service provided by Levy is designated as a Platinum Sustainable Pittsburgh Restaurant.

SUSTAINABLE PGH RESTAURANT
PLATINUM

APPENDICES

A. Reporting Scope
B. Glossary
C. Submeters
D. 2024 Pittsburgh 2030 District Report Excerpt

APPENDIX A: REPORTING SCOPE

ORGANIZATIONAL BOUNDARIES

Reporting boundaries typically follow the site boundary of the building. The DLCC encourages each event to adopt relevant sustainable practices, however, the DLCC cannot reasonably account for the impact of event purchasing, attendee transportation choices, and other externalities. Practices which do not directly affect the building's environmental performance have not been measured and included in this report.

BASELINES, METRICS, AND GOALS

To measure performance in a broadly accepted and translatable manner, the DLCC adopted the metrics and methodologies of LEED for Existing Buildings: O+M; the goals of the Pittsburgh 2030 District; and some performance indicators from the Event Organizers Sector Supplement of the Global Reporting Index (GRI) G4 Sustainability Reporting Guidelines.[1] It is important to note that the activity level and building demands at the DLCC are affected by externalities such as weather, event schedules, and event needs, type, and size.

2004 was the first full year of operations and data measurement and was generally adopted as the DLCC's baseline year. Baseline years are adjusted to reflect changes that significantly shift performance as follows:

- Water – The DLCC uses 2010 as a baseline year for internal tracking due to the change in water types used in building operations (filters were installed to allow aquifer water to replace potable water in the 10th Street Water Feature, reducing municipal water needs). The 2030 District uses 2006 as a baseline year due to the wastewater treatment plant coming online (as it reflects a significant change in overall water consumption consistent with their program parameters).

- Waste – The DLCC uses 2008 as the baseline year, due to a composting program that was added in that year (significantly increasing the diversion rate).

GREENHOUSE GAS INVENTORY METHODOLOGY

The DLCC quantifies annual greenhouse gas (GHG) emissions according to the methodology of the GHG Protocol Initiative[2] and the ENERGY STAR Portfolio Manager program. This methodology separates emissions into three different scopes according to the relationship between the emission's origination and the level of control over those emissions.

SCOPE 1

Scope 1 emissions, known as direct emissions, result from on-site emissions-releasing activities. The largest Scope 1 source at the DLCC is the combustion of natural gas used by the kitchen equipment, which only comprises 1% of the building's total emissions. All other

[1] The GRI is a nonprofit organization that develops and provides broad and consensus-based sustainability reporting guidelines. For more information, please visit globalreporting.org.

[2] The GHG Protocol Initiative is the most widely used and accepted emissions accounting methodology and is administered by the World Resources Institute and the World Business Council for Sustainable Development. More information may be found at ghgprotocol.org.

Scope 1 emissions are considered de minimus, and are not directly tracked at this time.[3]

SCOPE 2

Scope 2 is the carbon footprint of the facility that consists of emissions from the purchase of electricity and steam. Emissions resulting from electricity consumption are calculated based upon the most recent grid-specific factors reported to the US EPA. Emissions from district steam consumption are based on a national average reported by the Portfolio Manager program.

SCOPE 3

Scope 3 emissions are from sources outside the direct control of the reporting organization but may still be influenced by the organization's decisions or activities. Under the GHG Protocol, these emissions are optional to track because they do not fall within the organization's direct responsibility.

At the DLCC, Scope 3 emissions include those associated with purchased materials, waste management, and transportation of visitors. It is currently beyond the organization's capabilities to accurately track these emissions.

The carbon footprint given in the emissions section of this report represents only the facility footprint (i.e. the emissions associated with the use of the physical building and its systems).

[3] Defined by California Climate Registry as emissions comprising less than 5% of total footprint, de minimus emissions aren't tracked in an inventory unless deemed otherwise significant.

APPENDIX B: GLOSSARY

Act 129 rebate program: PA Act 129 requires electric distribution companies in PA to develop plans to reduce energy consumption. Electricity distributors often offer monetary incentives such as rebates to clients that make qualified energy savings upgrades.

aerating faucets: Controls faucet flow and regulates its pressure by adding air to the water flow.

air-handling units (AHUs): Device used to regulate and circulate air as part of a heating, ventilating, and air-conditioning.

aquifer: Geological formation containing or conducting ground water.

ASHRAE: The American Society of Heating, Refrigerating and Air-Conditioning Engineers.

building automation system (BAS): A comprehensive tracking and controlling system that monitors conditions inside the DLCC, like building pressure and air flow, and sets activation parameters for building elements. It is designed to keep guests comfortable and reduce the unnecessary use of energy.

built environment: The man-made spaces in which we all live, including buildings, developed open spaces, and transportation infrastructure.

carbon offset: A reduction in emissions of carbon dioxide in order to offset an emission made elsewhere. The reduction can be sold through certified agencies in order to allow others to compensate for their emissions.

centrifugal chiller: Removes heat from chilled water lowering its temperature in the process.

compostable: Organic substances that may be used to fertilize soil, like leaves, unused food, or paper and card- board products.

Cooling Degree Days (CDD): Days with an average temperature exceeding 65 degrees Fahrenheit, such days increase the strain on and use of building cooling systems. Taken in a year, the number of CDDs help put cooling-related energy usage into perspective.

cooling tower: Device that rejects waste heat to the atmosphere as a result of cooling a water stream to a lower temperature.

daylighting: The utilization of windows and other portals for natural light. This reduces electricity usage and improves the atmosphere of a building.

demand response: A program through which businesses receive payments for voluntarily reducing their electricity usage when heavy demand threatens the reliability of the region's electricity grid.

direct spending: Spending by attendees, exhibitors and organizers based on hotel-room consumption and other spending.

diversion rate: The rate at which materials are diverted from landfill by "reducing, re-using, and recycling".

Energy Star Portfolio Manager: A web-based energy management tool developed by the U.S. EPA and the U.S. Department of Energy as a component of the ENERGY STAR energy performance rating system.

Green Building Alliance (GBA): A regional non-profit that has been promoting sustainable practices in Western Pennsylvania since 1993.

Green-e certified: A clean energy certification that ensures that green energy purchases are regulated and confirm to standards.

greenhouse gas (GHG): Any gas that absorbs infrared radiation from the sun and re-radiates it, like carbon dioxide or chlorofluorocarbons. These substances are associated with climate change and the greenhouse effect.

"green seeking" events: Events that identified sustainability as a major objective in initial contacts.

heat island effect: The increased temperatures experienced in urban areas when sunlight is absorbed by roofing and paving materials and the light is re-radiated as heat energy, causing built up and paved areas to be significantly warmer than rural areas.

Heating Degree Days (HDD): Days with an average temperature below 65 degrees Fahrenheit. Such days increase the strain on and use of building heating systems. Taken in a year, the number of HDDs help put heating-related energy usage into perspective.

indoor air quality (IAQ): The air quality within and around buildings and structures, especially as it relates to the health and comfort of building occupants.

Integrated Pest Management, Erosion Control, and Landscape Management Plan: A DLCC management plan mandating landscaping and planters to be hand-weeded, and landscaping waste collected is composted. Fertilizers are to be used rarely, and when used, must be organic.

LEED (Leadership in Energy and Environmental Design) certification: Issued by the U.S. Green Building Council which is a globally recognized symbol of sustainable achievement in the built environment.

net emissions: The difference of total emissions less the emissions mitigated through carbon offset stages.

Site Energy Use Intensity (Site EUI): The total energy consumed by a building relative to its size. An output from the EPA's ENERGY STAR Portfolio Manager, this measure takes the building's annual energy performance over its gross square footage.

SCAQMD: South Coast Air Quality Management District, the air pollution agency responsible for regulating stationary sources of air pollution in the South Coast Air Basin, in Southern California. The regulations are used throughout the country.

stack effect: Also called the "chimney effect," this is the phenomenon of natural, cyclical ventilation and cooling that occurs when cool air enters a building to replace the warm air escaping upward.

sub-meters: Meters that measure water or energy usage in a sub-section or component of a building.

Thousand British Thermal Units (kBtu): A common standard unit for energy performance, used to ensure consistency and comparability across electricity, steam, and natural gas usages.

variable frequency drives (VFDs): Effective method of reducing the energy and operational costs of motors in air-handling units and allows HVAC systems to better adjust to changes in demand.

volatile organic compounds (VOCs): Components of many household and office products, like paint, adhesives, or furniture, that concentrate much more heavily inside of buildings and may have adverse health effects that range from simple eye/nose/throat discomfort to the long-term threat of cancer, depending on the chemical in question.

Water Use Intensity (WUI): Rate at which water is used in a given area.

wastewater: Any water that has been affected by human use.

APPENDIX C: SUBMETERS

The DLCC has implemented the use of submeters for electricity, cooling and water use in the building. These submeters help provide the DLCC with a record of energy, water, and cost savings resulting from building investments.

Energy Submeters

- Chiller Plant (800amp/400amp)
- 10th Street Water Feature motors
- AT&T cellular tower equipment
- Electric vehicle charging stations
- Wastewater treatment plant
- SEA Office
- Parking garage lighting
- 10th Street and Ft. Duquesne Blvd roadway lighting
- Jimmy John's
- YouthPlaces

Water Submeters

- Wastewater treatment plant
- Cooling tower make-up (aquifer water)
- 10th Street Water Feature (aquifer/municipal water)
- 11th Street irrigation (aquifer water)
- 3rd Floor South and 4th Floor Rooftop Terrace irrigation (aquifer water)
- SEA Office
- Jimmy John's
- YouthPlaces

APPENDIX D: 2024 PITTSBURGH 2030 DISTRICT REPORT EXCERPT

The Pittsburgh 2030 District is a collaboration of property owners working to reduce carbon emissions, energy and water use, and improve indoor air quality. The 2030 District is facilitated by Green Building Alliance (GBA). The SEA, as the building owner of the DLCC, is a founding partner of the 2030 District.

The 2030 District Property Partners share their utility data with GBA using ENERGY STAR Portfolio Manager. GBA compiles the data into a comprehensive report for the entire 2030 District and also provides individual reports to 2030 District Property Partners.

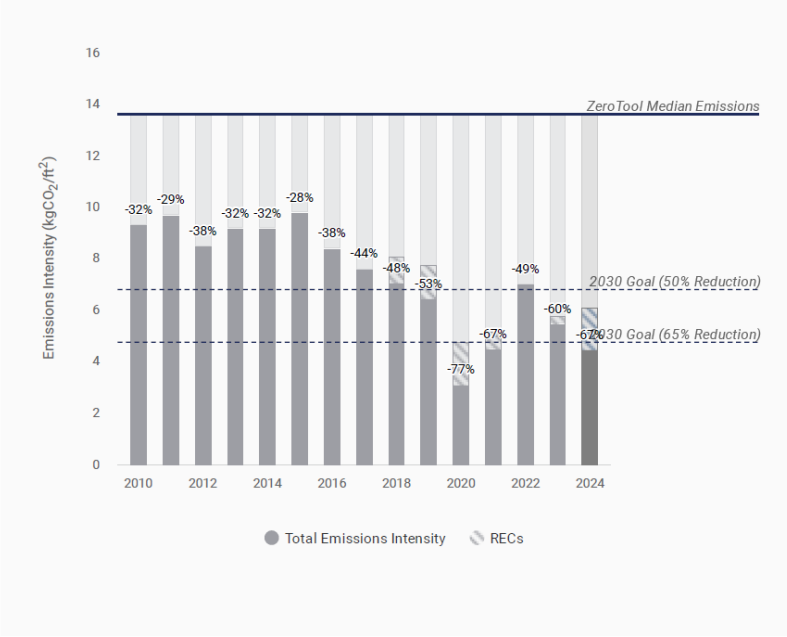
The following tables were provided by GBA in the DLCC's 2024 Pittsburgh 2030 District Report. Note that the energy performance numbers vary slightly from the DLCC reported performance since the 2030 report is normalized for weather.

Green Building Alliance

David L. Lawrence Convention Center

Emissions Reduction Progress

The graph below summarizes building emissions over time relative to building intensity baselines and targets. **ESPM updated their eGRID electric emissions methodology in Dec 2022** and continues to do so annually. This may change your three most recent years of emissions data. This site uses Emissions Factors for: ESPM-RFCW



Baseline
ZeroTool Median Emissions
13.6 EI
kgCO2e/ft²

2024 Performance
4.4 EI
67.32% below the baseline (with RECs & offsets)

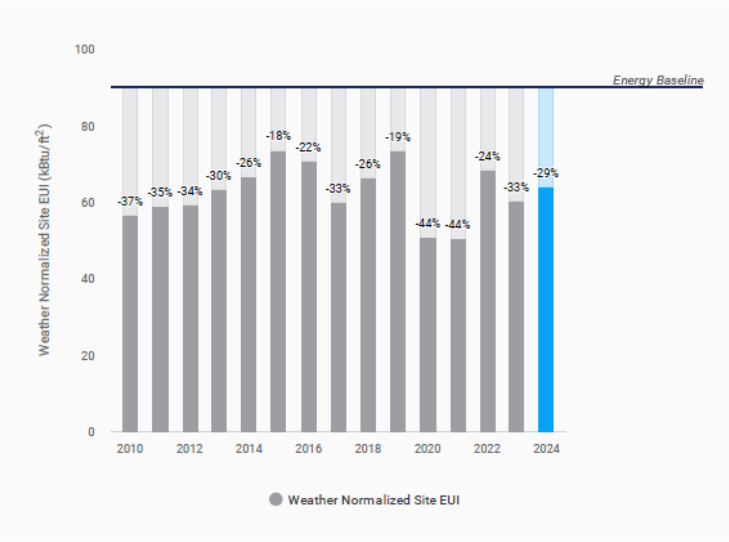
2023 Performance
5.5 EI
59.66% below the baseline (with RECs & offsets)

Green Building Alliance

David L. Lawrence Convention Center

Energy Reduction Progress

The graph below summarizes annual performance over time relative to building intensity baselines and targets.



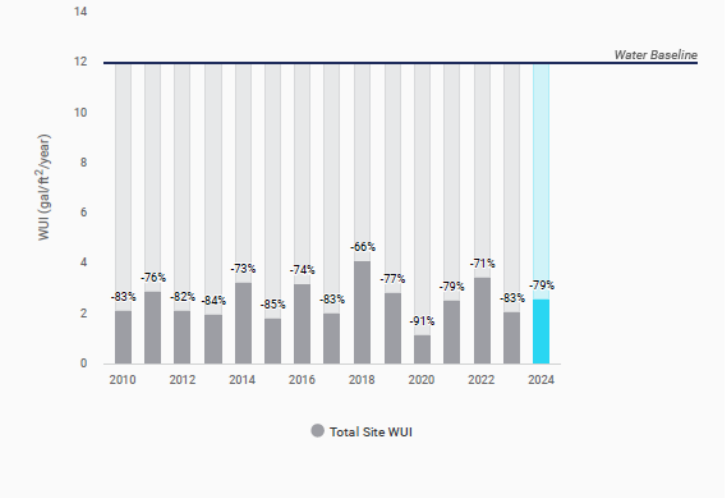
Baseline
Energy Baseline
90.1 EUI
kBtu/ft²

2024 Performance
64.2 EUI
28.75% below the baseline

2023 Performance
60.3 EUI
33.07% below the baseline

Water Reduction Progress

The graph below summarizes annual water performance over time relative to building intensity baselines and targets.



Baseline
Water Baseline
11.98 WUI
gal/ft²

2024 Performance
2.55 WUI
78.71% below the baseline

2023 Performance
2.04 WUI
82.97% below the baseline