



MURIEL BOWSER
MAYOR

September 17, 2026

The Honorable Phil Mendelson
Chairman
Council of the District of Columbia
John A. Wilson Building
1350 Pennsylvania Avenue, NW, Suite 504
Washington, DC 20004

Dear Chairman Mendelson:

I am pleased to submit to the Council of the District of Columbia the enclosed "District of Columbia Green Building Report 2020-2022," which was prepared by the Department of Energy and Environment ("DOEE") in coordination with the Green Building Advisory Council pursuant to section 10(f) of the Green Building Act of 2006, effective March 8, 2007 (D.C. Law 16-234; D.C. Official Code § 6-1451.09(f)).

This report tracks the implementation of the Green Building Act of 2006 and the progress made toward a more sustainable build environment in the District in 2020, 2021, and 2022.

My administration is available to answer any questions you may have regarding this report. In order to facilitate a response to any questions you may have, please contact Richard Jackson, Director, DOEE, at (202) 654-6017.

Sincerely,

A handwritten signature in black ink, appearing to read "Muriel Bowser", written over a large, stylized circular flourish.

Muriel Bowser
Mayor

2020-2022

District of Columbia

Green Building

Report

★ ★ ★ DEPARTMENT
OF ENERGY &
ENVIRONMENT

★ ★ ★ WE ARE
WASHINGTON
GOVERNMENT OF THE
DISTRICT OF COLUMBIA
DC MURIEL BOWSER, MAYOR

Contents

2

Executive Summary

3

Greenhouse Gas Emissions

7

Green Building Metrics

13

Building Energy Performance

21

Project Spotlights

25

Policies and Programs

29

Green Building Fund

31

Conclusion

Executive Summary

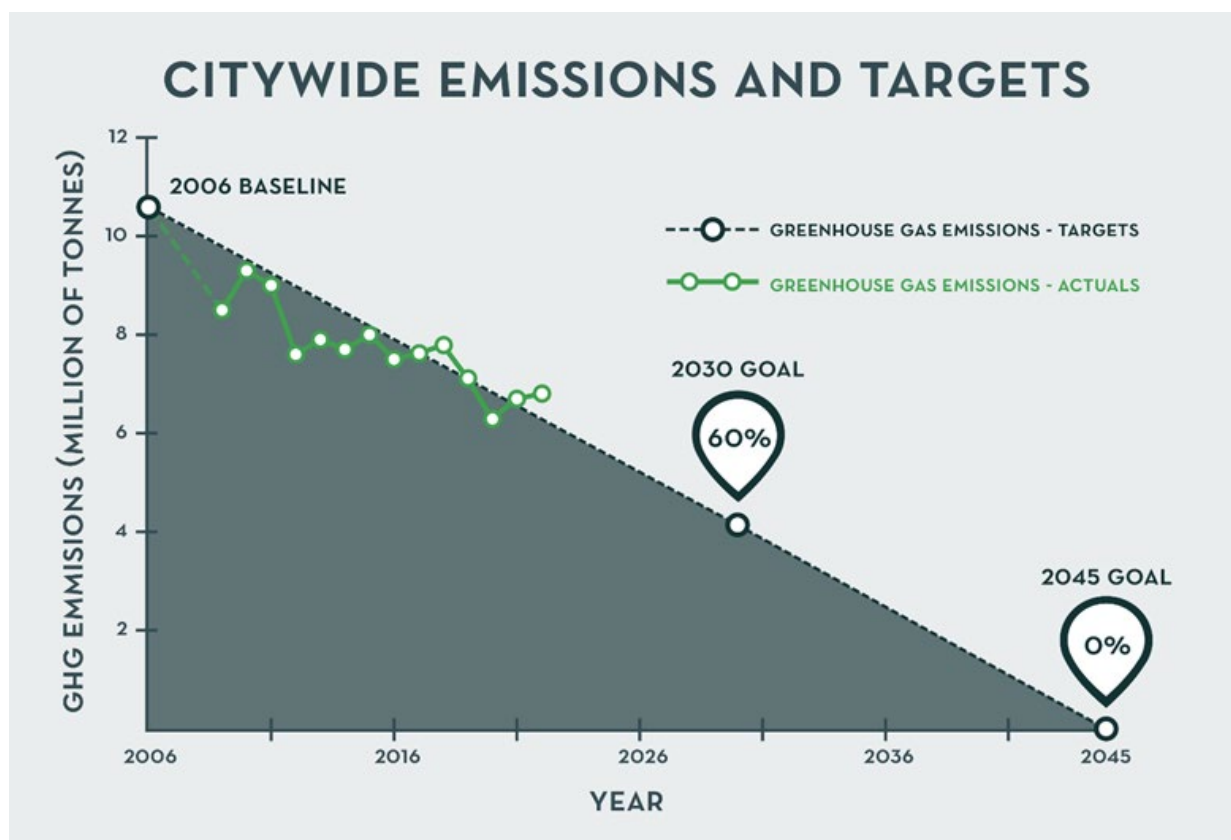
This is the eighth edition of the Green Building Report, a report required by the Green Building Act of 2006 (GBA). It is intended to track the implementation of the GBA and the progress made toward a more sustainable built environment in the District of Columbia. The report is published as a joint effort between the Department of Energy and Environment (DOEE) and the Green Building Advisory Council (GBAC). The report summarizes green building efforts and data from calendar year 2020 through 2022.

A few notable highlights from this report include:

- The District's 2022 greenhouse gas (GHG) emissions inventory showed a 35% reduction in greenhouse gas (GHG) emissions, compared to the 2006 baseline inventory.
- The District remains a national leader in Leadership in Energy and Environmental Design (LEED), Enterprise Green Communities (EGC), and ENERGY STAR certifications.
- Between 2020 and 2022, the District installed over 1.8 million square feet of green roof.
- The District continues to ensure equitable access to the benefits of clean, renewable energy through the Solar for All program, which has enrolled over 8,500 households.
- Data collected through the District's energy benchmarking and Building Energy Performance Standards (BEPS) programs shows that building GHG emissions and energy use intensity (EUI) continues to decrease in both public and private buildings.

NOTE: From March 2020 to April 2022, a public health emergency related to the COVID-19 pandemic was declared in the District. The public health emergency had far-reaching impacts across the District and the nation. As a result, some data and information included in this report may be atypical.

Greenhouse Gas Emissions



The Department of Energy and Environment (DOEE) tracks the District's greenhouse gas (GHG) emissions in order to measure progress toward the District's emissions reduction goals. The Climate Commitment Amendment Act of 2022 set targets to reduce greenhouse gas emissions by no less than 60% relative to 2006 levels by 2030 and to reach carbon neutrality by 2045.

EMISSIONS BY SECTOR



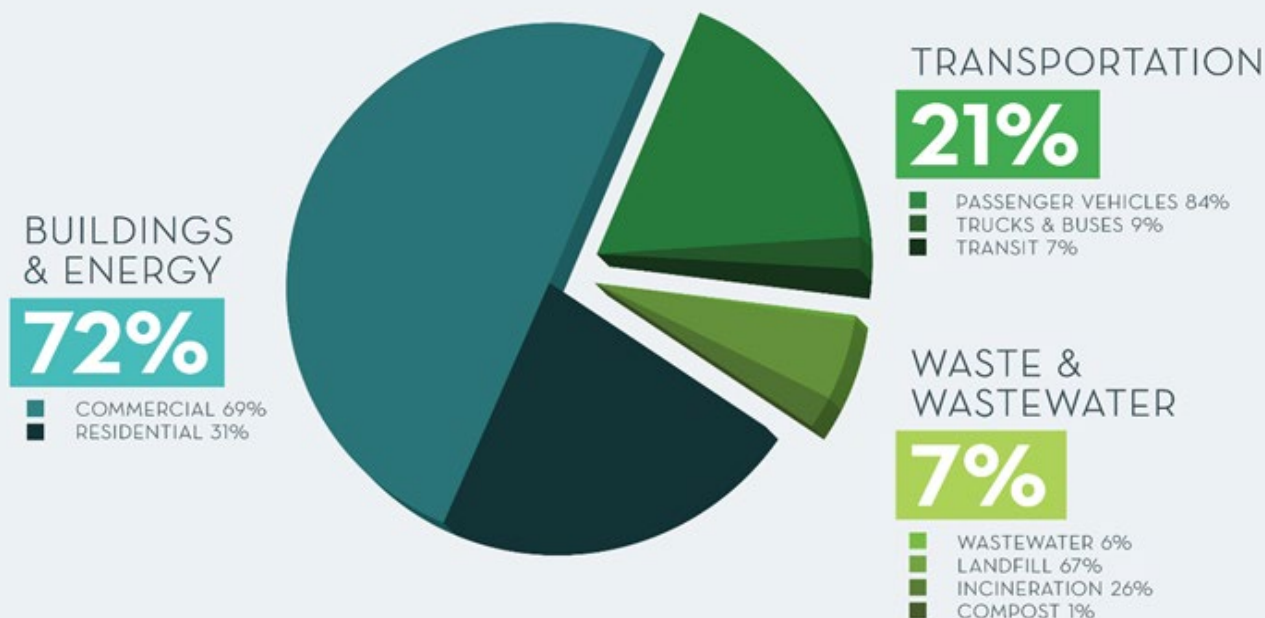
In 2022, the District saw a 35% decrease in citywide emissions compared to the 2006 baseline inventory. This data reflects the significant impacts of the COVID-19 public health emergency that began in 2020, including the reduction in non-residential building energy use and transportation. As a result, city-wide emissions appear to increase in 2021 and 2022 (compared to 2020) but overall, the District has demonstrated strong progress toward its 2030 goal of reducing GHG emissions by 60% and its 2045 goal of carbon neutrality. Analyzing lasting impacts on the city's long-term GHG emissions trends will require several years of future data.

Prior to 2020, the 2019 inventory showed a 30% decrease in citywide emissions compared to the 2006 baseline inventory. Changes to the regional electrical grid were by far the most significant factor driving emissions reductions between 2006 and 2019. This is largely due to the regional decline in power generated from coal-fired power plants. Shifting from burning coal to fossil gas has reduced the GHG emissions associated with each kilowatt of electricity used in the city.

In addition to the greening of the electric grid, the decrease of large building energy use and improvements in the vehicle fuel economy, combined with fewer miles driven per resident, have also helped to reduce emissions. These changes have allowed the city's emissions to fall, even as other factors have put upward pressure on emissions, including growth in both residential population and in building square footage, and a warmer summer in 2019 compared to 2006.

The District's Clean Energy DC plan, finalized in 2018 and currently being updated, calls for ongoing local action to reduce emissions by cutting energy use in buildings and shifting to clean energy sources. Clean Energy DC's transportation sector goals also highlight the importance of the District's moveDC plan, which aims to enable more trips via biking, walking, and public transportation. Ensuring residents, workers, and visitors have access to this type of transportation options reduces single-occupancy vehicle use and vehicle congestion and pollution.

2022 EMISSIONS BY SECTOR



The District's GHG emissions are broken down into three main sectors: **Buildings & Energy** (72%), **Transportation** (21%), and **Waste & Wastewater** (7%). With the Buildings & Energy sector accounting for nearly three-fourths of all GHG emissions in the District, reducing energy use from buildings is critical as the District moves towards its goal to be carbon neutral by 2045. Across these sectors, the main sources of emissions are electricity (49%), fossil gas (22%), and gasoline (20%).

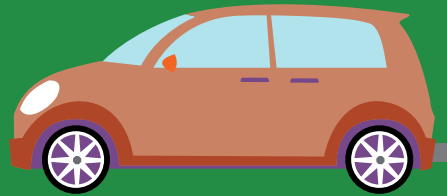
- **Buildings & Energy:** The building and energy sector includes both residential and non-residential usage, including federal properties managed by the General Services Administration (GSA).
- **Transportation:** Transportation emissions come mostly from the fuels used in on-road vehicles. These include passenger cars, trucks, and buses. Emissions also come from the generation of the electricity used to power the electric DC Circulator buses, the DC Streetcar, and Metrorail throughout the District.
- **Waste:** The waste sector encompasses emissions associated with the treating and disposing of waste and wastewater generated in the District. These emissions include those that are released from landfills, incinerators, and the Blue Plains wastewater treatment facility.

For more information, visit DOEE's [Greenhouse Gas Inventories webpage](#).

Avoided Greenhouse Gases

Between 2006 and 2022, the District reduced its annual GHG emissions by 3.75 million metric tons of carbon dioxide equivalent. This reduction is equivalent to:

Removing
890,000 cars
from U.S. roadways
for one year



Powering
489,690 homes
for one year



The carbon
sequestration
power of a
**4.3-million-acre
forest** for one year



These metrics were calculated using the Environmental Protection Agency's (EPA's)
[Greenhouse Gas Equivalencies Calculator](#).

Green Building Metrics

The District's Performance Nationally

The District has been recognized as a national leader for its green building practices and policies, which are described in more detail below. The District's approach to green building strategies has evolved over time, beginning with a focus on green building standards, such as Leadership in Energy and Environmental Design (LEED) or Enterprise Green Communities (EGC), that target sustainable design at the beginning of a building's life. The approach has expanded to incorporate performance enforcement through Building Energy Performance Standards (BEPS). The District's BEPS program was the first of its kind in the country and ensures that existing buildings increase energy efficiency and reduce reliance on fossil fuels. The following accomplishments are highlights of the District's green building successes as of 2022.

Home to the most
LEED certified gross
square feet per
capita, when
compared to states.¹

Over 6 million
square feet of
green roof on
over 2,400
buildings.²

Most robust
solar renewable
energy credits
(SREC) market in
the nation.³

Metropolitan area
with the second
most ENERGY
STAR certified
buildings.⁴

1. <https://www.usgbc.org/articles/infographic-top-10-states-leed-2020>

2. https://www.energystar.gov/buildings/about_us/newsroom/top_cities/top_cities_past_rankings

3. [https://dcpssc.org/PSCDC/media/Images/2021-RPS-report-FINAL-\(1\)_1.pdf](https://dcpssc.org/PSCDC/media/Images/2021-RPS-report-FINAL-(1)_1.pdf)

4. <https://www.epa.gov/greenpower/green-power-partnership-top-30-local-government>

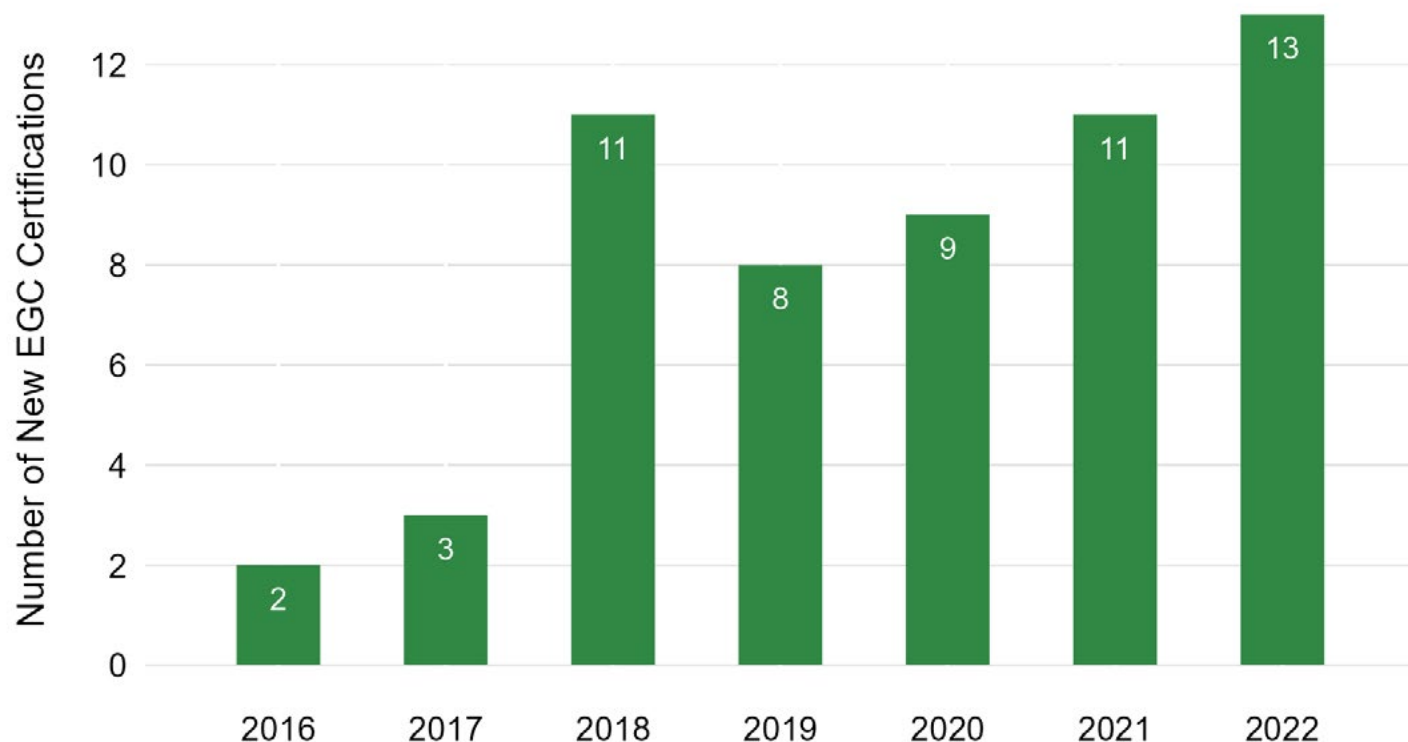
LEED Certifications



As a result of the [Green Building Act](#), the District boasts consistently high numbers in LEED-certified buildings. [LEED](#) is one of the most widely used green building rating systems in the world, providing a framework to promote healthy, efficient, and cost-saving buildings. LEED-certified spaces generally use less energy and emit fewer GHG emissions than their non-certified counterparts.

In 2022, 115 buildings in the District earned LEED Certification, bringing the District's total number of LEED certified buildings to 1,760.

Enterprise Green Communities Certifications

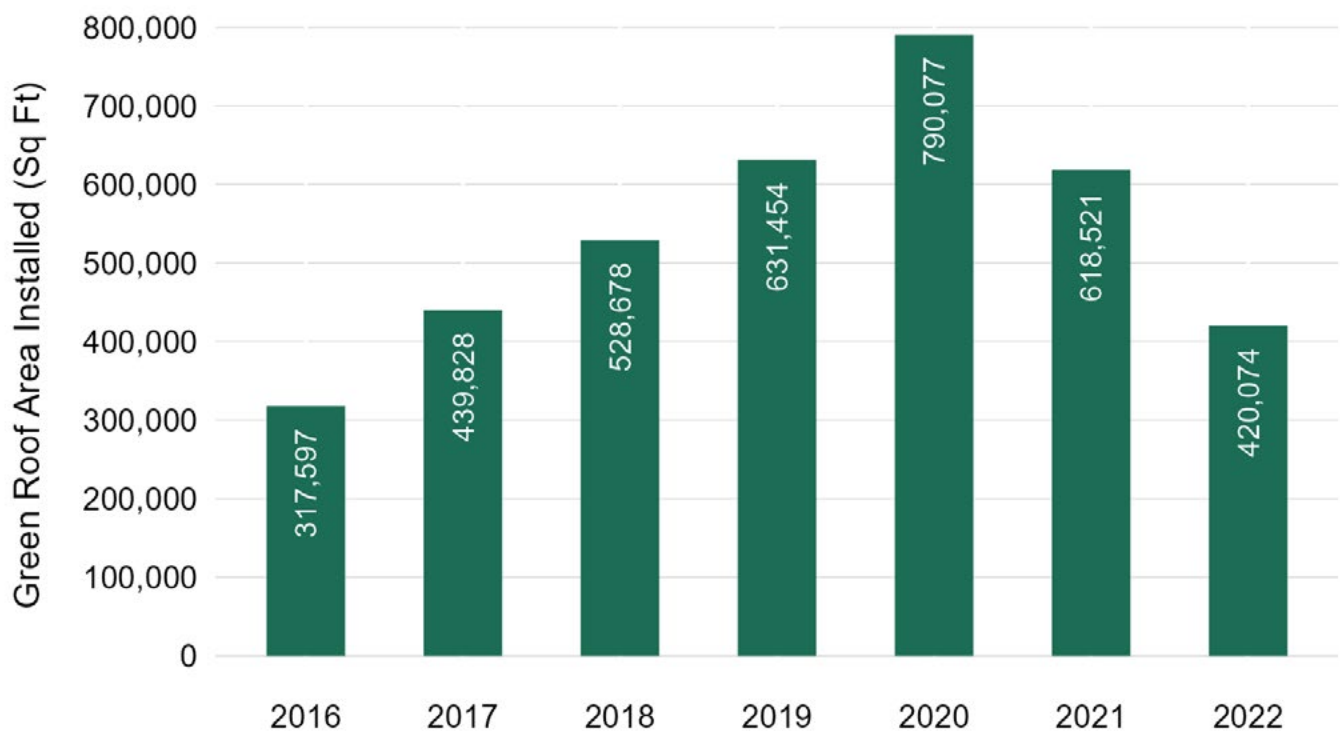
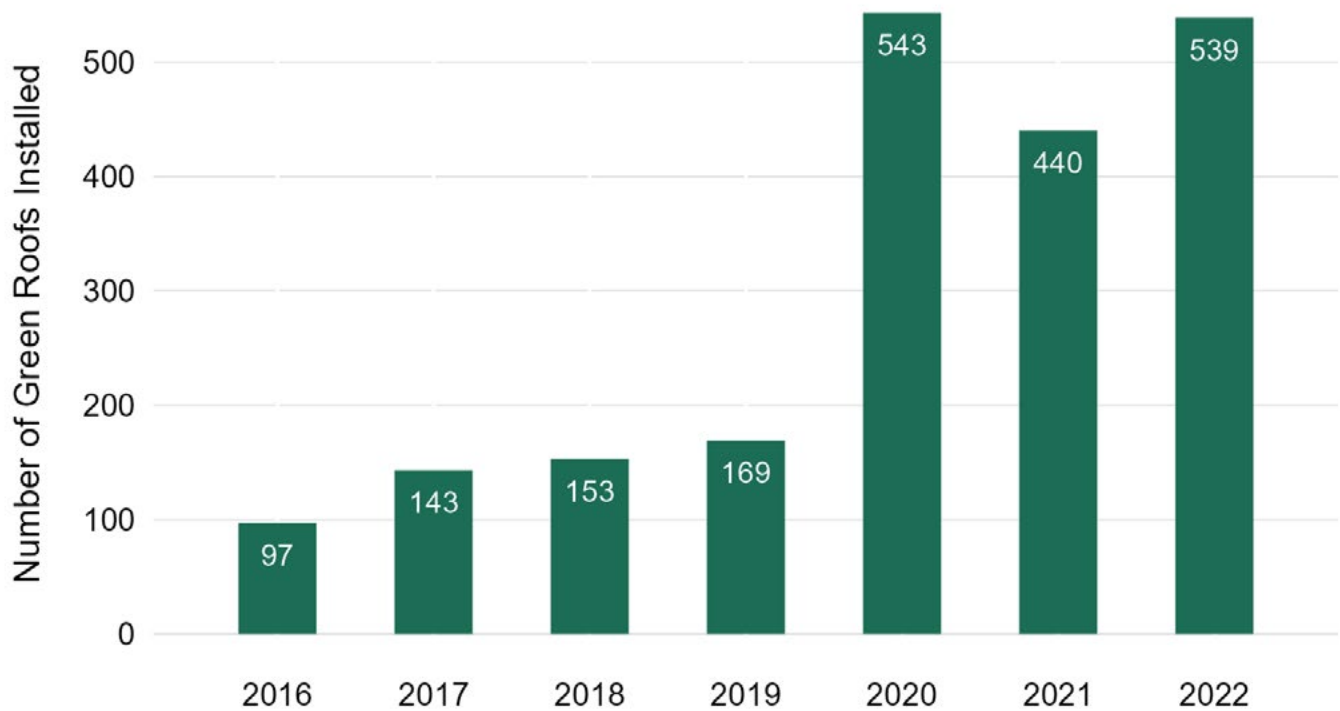


The [Green Building Act](#) requires residential properties receiving public funding to achieve [Enterprise Green Communities](#) (EGC) certification. EGC is a green building program designed for affordable housing projects. Like LEED, EGC certification leads to healthy, efficient, and environmentally responsible homes. EGC certification is a two-phase process that consists of pre-build and post-build approval. A project earns pre-build approval by successfully employing an integrative process to set goals and design the project using the EGC criteria. Post-build certification is earned after the project has been constructed to EGC standards and received its Certificate of Occupancy.

Between 2020 and 2022, 33 building projects achieved EGC certification by completing the post-build process. Of these 33 certified projects, 15 are moderate rehabilitation, 3 are substantial rehabilitation, and 15 are new construction.

Green Roof Installations

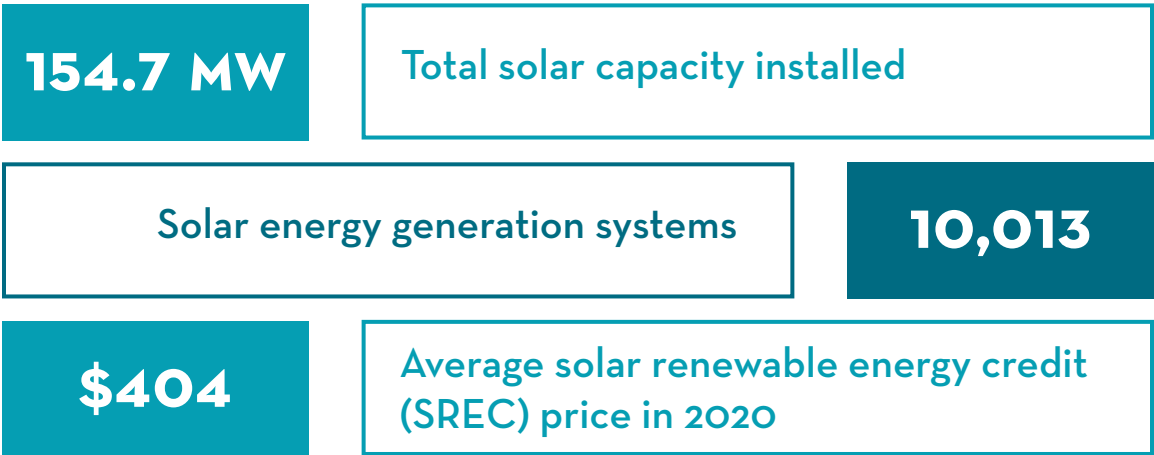
According to the District's [Green Roof Inventory](#), the District has installed over 6 million square feet of green roofs. Between 2020 and 2022, over 1.8 million square feet of green roof area was installed.



Solar in the District

The District has passed several key pieces of legislation to support the development of solar, including:

- [Clean and Affordable Energy Act of 2008](#)
- [Distributed Generation Amendment Act of 2011](#)
- [Community Renewable Energy Amendment Act of 2013](#)
- [Renewable Energy Portfolio Standard Amendment Act of 2014](#)
- [Renewable Portfolio Standard Expansion Amendment Act of 2016](#)
- [Clean Energy DC Omnibus Amendment Act of 2018](#)



As of May 2022, a total of 154.7 megawatts (MW) of solar have been installed across the District. Between 2020 and 2022, the District added 63 MW of capacity from District-based solar energy systems. The District continues to have the strongest Solar Renewable Energy Certificate (SREC) market in the country. An SREC is a financial incentive that allows solar owners to sell a claim to the environmental benefits of the clean energy generated by their solar panels. A homeowner earns one SREC for every 1 megawatt-hour (MWh), or 1000 kilowatt-hours (kWhs), produced by their solar panel system. In the District, homeowners can sell SRECs directly to their utility company. In 2022, the average price of an SREC generated in the District was \$404, increasing \$16 since 2020.

For more information, read the Public Service Commission's [Renewable Energy Portfolio Standards report](#).

Solar for All

Solar for All is the District's initiative to provide 100,000 low-to-moderate income residents with the benefits of locally generated clean energy. Partnering with organizations across the District to install solar on single family homes and develop community solar projects, DOEE aims to benefit income-qualified homeowners, renters, and residents in multi-family buildings by reducing their electricity bills 50%. Community solar project are typically developed on large buildings or parcels of land, and they allow residents who live in multifamily buildings or whose roofs are not suitable for solar to access savings from Solar for All. Income-qualified homeowners can have rooftop solar photovoltaic (PV) systems installed by local solar contractors at no cost.

In keeping with the District's commitment to advancing racial equity, the Solar for All initiative aims to ensure equal access to the benefits of clean, renewable energy by deploying solar technology to slash utility burdens for low-to-moderate income residents, particularly those living in communities most burdened by the impacts of climate change and pollution.



In keeping with the District's commitment to advancing racial equity, the Solar for All initiative aims to ensure equal access to the benefits of clean, renewable energy by deploying solar technology to slash utility burdens for low-to-moderate income residents, particularly those living in communities most burdened by the impacts of climate change and pollution.

Between FY 2020 and FY 2022, 7,528 new households registered with Solar for All. As of FY 2022, the total number of households receiving benefits through the program was 8,533. The average annual reduction in utility bills for participating households is \$500.

For more information, visit [DOEE's Solar for All webpage](#) or DC Sustainable Energy Utility's (DCSEU's) [Solar for All webpage](#).

Building Energy Performance

Benchmarking 101

Energy benchmarking involves tracking a building's energy and water use and using a standard metric to compare the building's performance against its past performance and the performance of similar buildings. These comparisons have been shown to drive energy efficiency upgrades and increase occupancy rates and property values.

The **Clean and Affordable Energy Act of 2008** requires that owners of all large private buildings over 50,000 square feet and District owned buildings over 10,000 square feet annually benchmark their energy and water efficiency and report the results to DOEE for public disclosure.

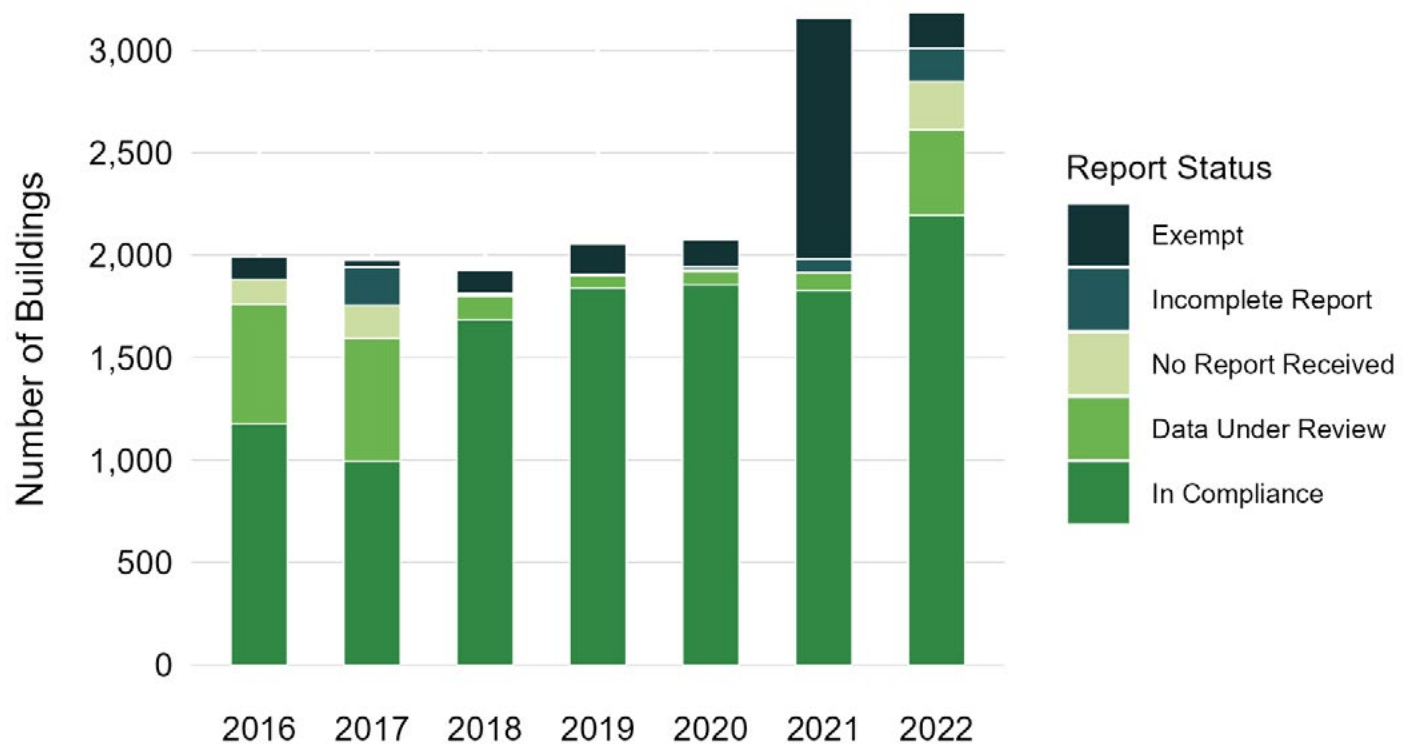
The **Clean Energy DC Act of 2018** extended the benchmarking requirement to private buildings under 50,000 square feet. All privately owned buildings over 25,000 square feet will be required to benchmark, starting with their calendar year 2021 data, and all privately owned buildings over 10,000 square feet will be required to benchmark, starting with their calendar year 2024 data.

Building Size	Reporting Requirement Begins
>50,000 ft ²	2014 (with calendar year 2013 data)
25,000 - 49,999 ft ²	2022 (with calendar year 2021 data)
10,000 - 24,999 ft ²	2025 (with calendar year 2024 data)

Benchmarking Program Improvements

The graph below shows the number of buildings reporting benchmarking data between 2016 and 2022.

For more information, visit [DOEE's Building Performance dashboard](#) or the [Building Performance Helpdesk](#).



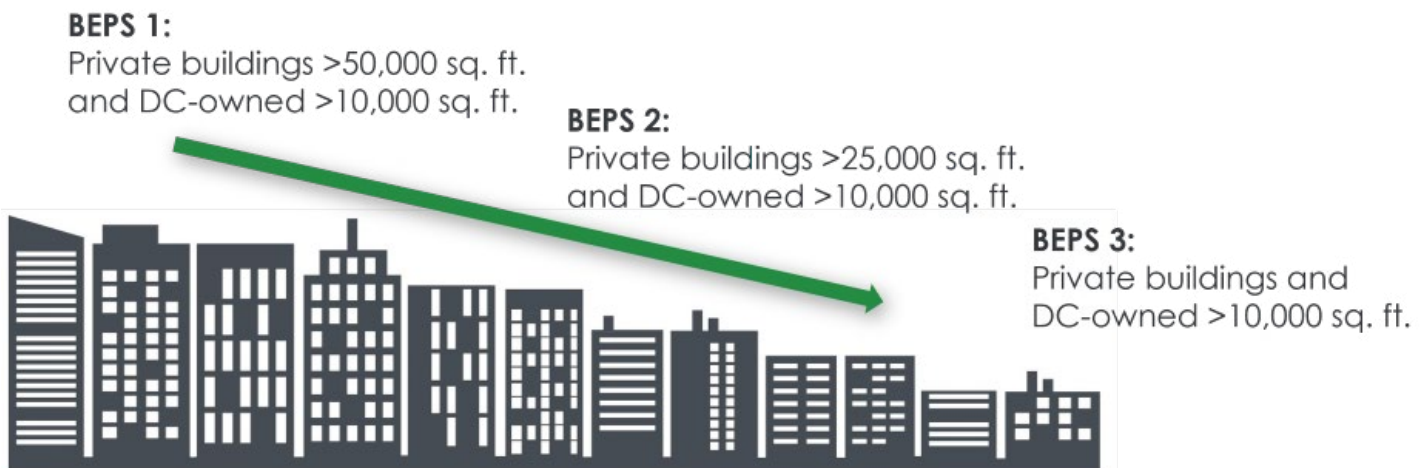
Building Energy Performance Standards (BEPS)

The Clean Energy DC plan includes an action to increase energy efficiency in existing buildings and reduce their reliance on fossil fuels. The Building Energy Performance Standards (BEPS) were set forth in Title III of the Clean Energy DC Omnibus Act of 2018. The Act states that, starting in 2021, owners of buildings over 50,000 sq. ft. that do not meet a specific energy performance threshold will be required to improve their energy efficiency over a six-year compliance cycle. Owners have until the end of the BEPS cycle to bring buildings into compliance. Compliance paths are as follows:

- Performance: Reduce energy usage 20%
- Prescriptive: Implement cost-effective energy efficiency measures
- Standard Target: Reach the standard for property type
- Alternative Compliance: Available under special circumstances

DOEE established the first set of BEPS on January 1, 2021, which were no lower than the local median ENERGY STAR score (or the equivalent metric of source EUI). As the benchmarking requirements ratchet down in square footage over time, buildings will be required to meet the BEPS in the following periods until all buildings 10,000 square feet and larger are following the performance standards. These requirements build upon the success of the District's energy benchmarking program, which has been collecting energy and water performance data on properties over 50,000 square feet since 2013.

Standards will be re-established at regular intervals, which will create BEPS Periods (i.e., BEPS Period 1, 2, etc.) with requirements that apply to buildings with a smaller footprint by square footage over time:



For more information, visit DOEE's [BEPS webpage](#) or the [Building Performance Knowledgebase](#).

Building Energy Performance and Emissions Data

Key Terms

- **Energy Use Intensity (EUI)** represents a building's energy use in terms of its size. It is expressed in energy per square foot per year. A low EUI means a high energy performance, while a high EUI signifies a low energy performance.
- **Weather-normalization** is a process by which data is cleaned. The data is processed to reflect energy use as it would have been if the weather experienced was the 30-year average temperatures. Weather-normalized data is used to eliminate outliers and to ensure that data can be compared.
- **Site EUI** represents the total heat and electricity used by the building. It is a reflection of the energy bought directly for use at a building.
- **Source EUI** represents the total amount of raw fuel that is needed for a building to operate. It is a reflection of the total energy consumed including that from delivery and production losses.

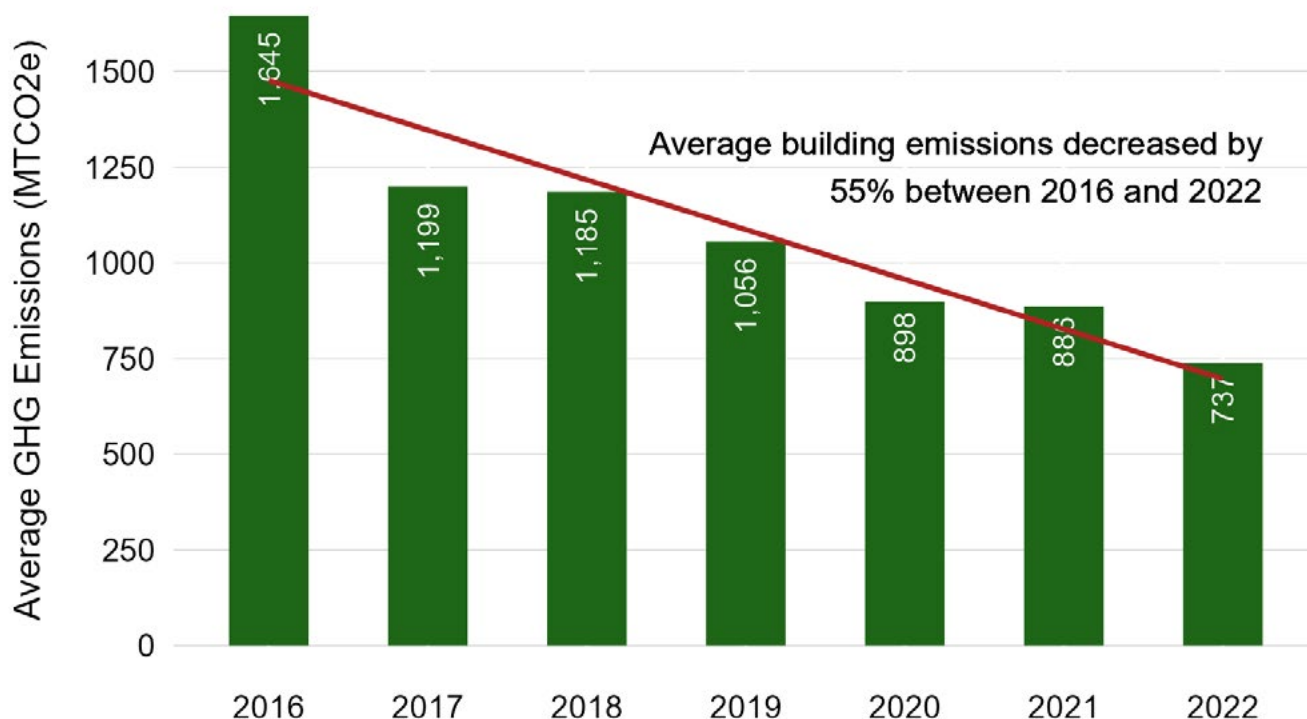
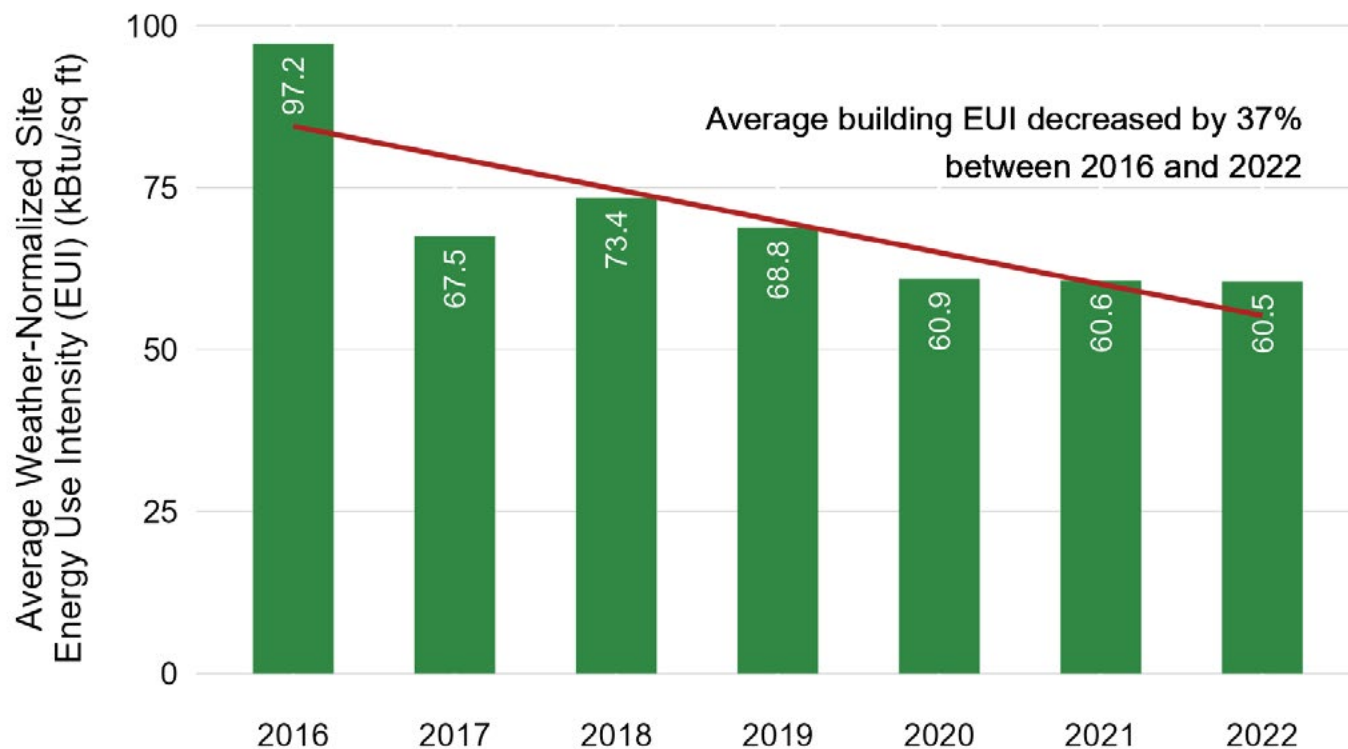
The data throughout this section is based on weather-normalized site energy use intensity (EUI), which measures the building's energy use per square foot per year, and GHG emissions equivalents, which provide an associated emissions value based on energy use.

EUI represents the amount of energy a building uses, while the GHG emissions equivalents give a comprehensive view of the building's contribution to climate change based on its annual energy use. While buildings of similar sizes and uses often have similar EUIs, GHG emissions vary across buildings due to fuel sources (e.g., electricity, fossil gas, fuel oil, etc.) and the transmission factors associated with each source. Buildings that use electricity often have lower GHG emissions and climate impacts than buildings that rely on fossil gas or fuel oil.

The following sections provide an overview of the changes in building energy use and emissions by ownership and use since 2016.

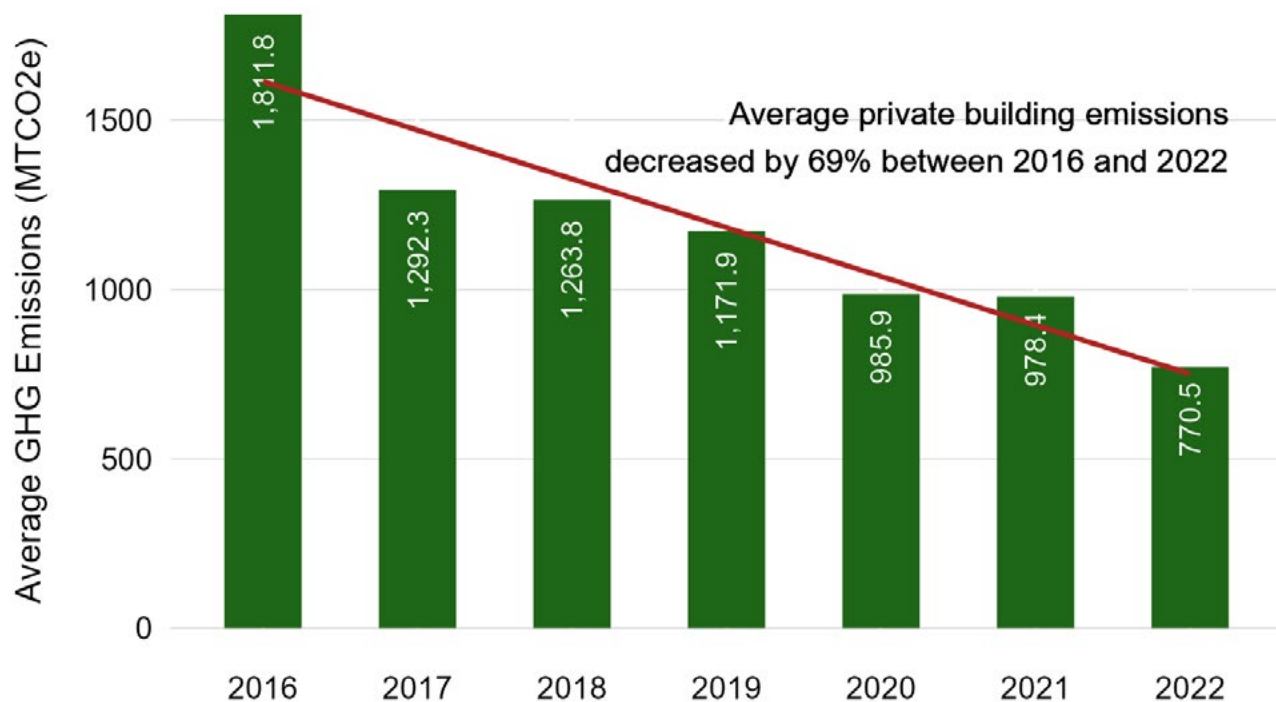
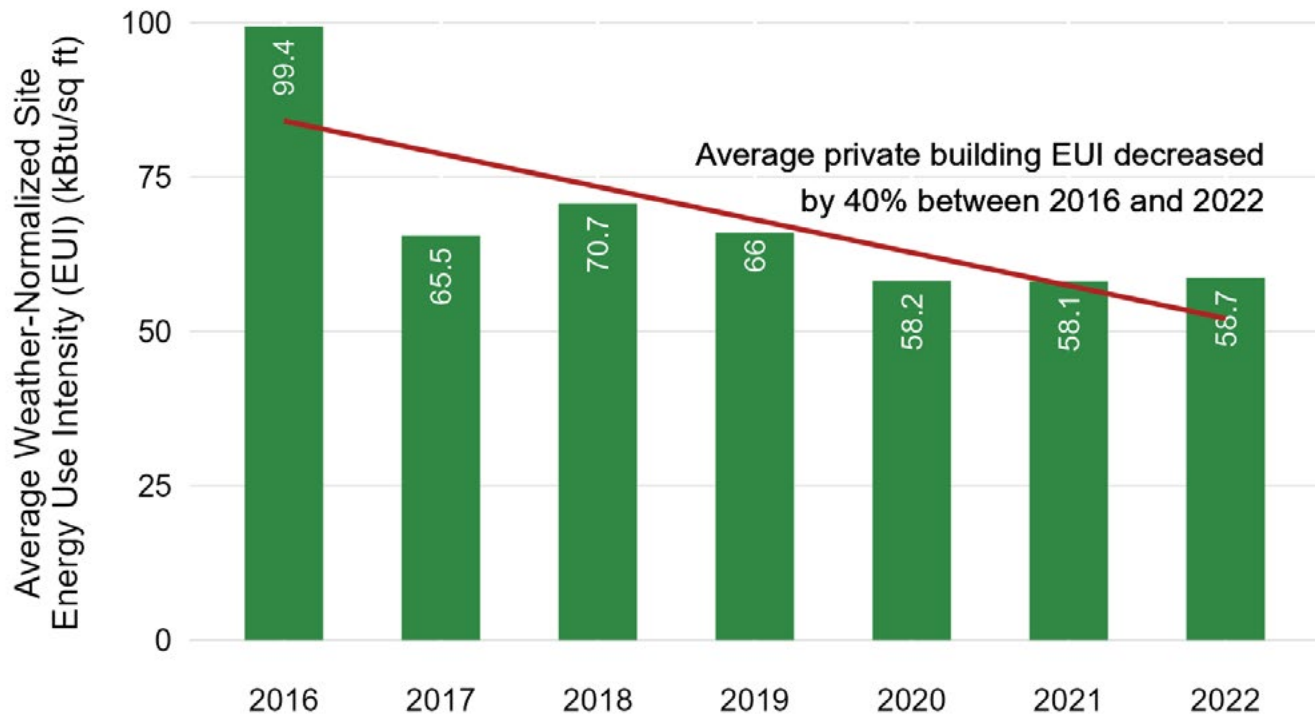
Overall Building Performance

Since 2016, overall energy use and GHG emissions from benchmarked buildings in the District continue to decline as the District moves toward its climate goals. The remainder of this section provides a look at how energy use and emissions have decreased in public buildings and private buildings over the years.



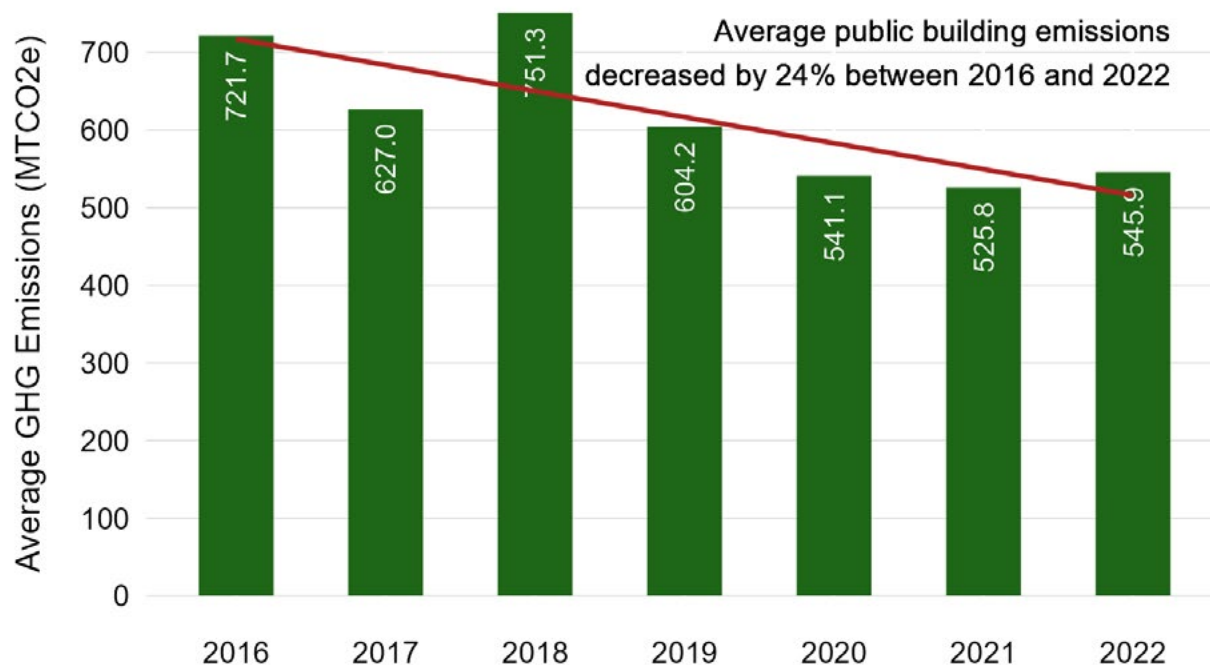
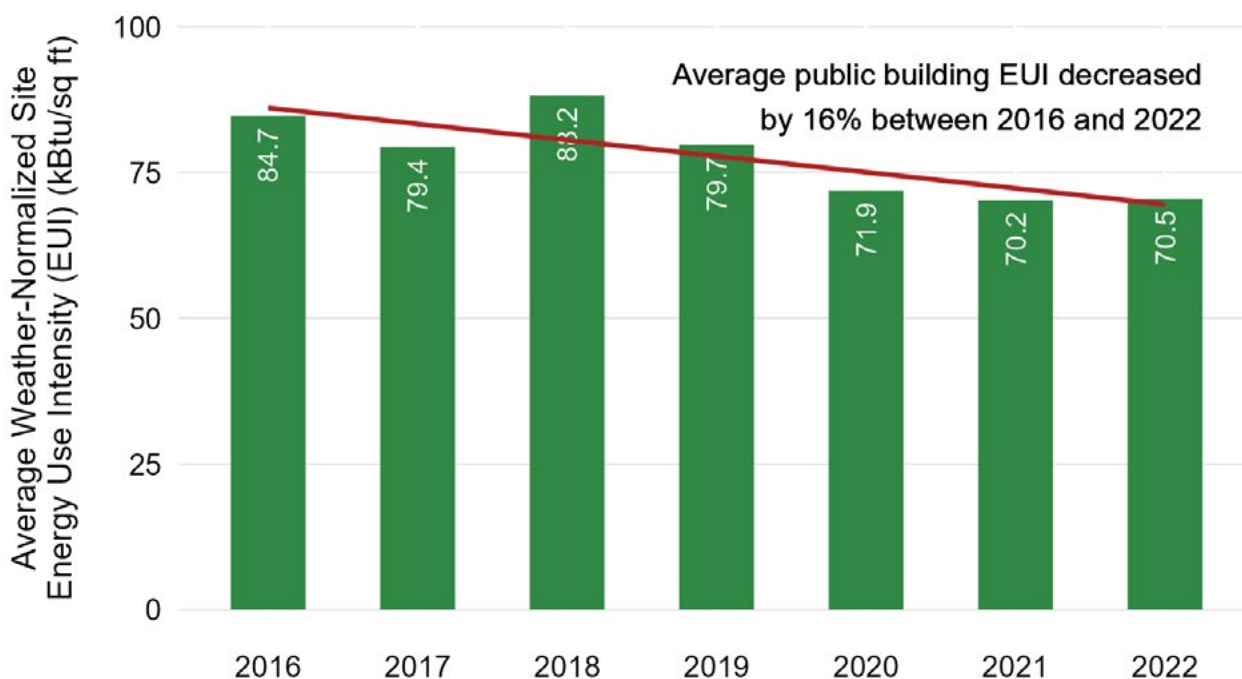
Private Building Performance

Energy use and emissions in private buildings covered by the law also continue to decrease. Policies like the Clean Energy DC Building Code Amendment Act and programs like BEPS will ensure private buildings continue to make progress toward District-wide goals.



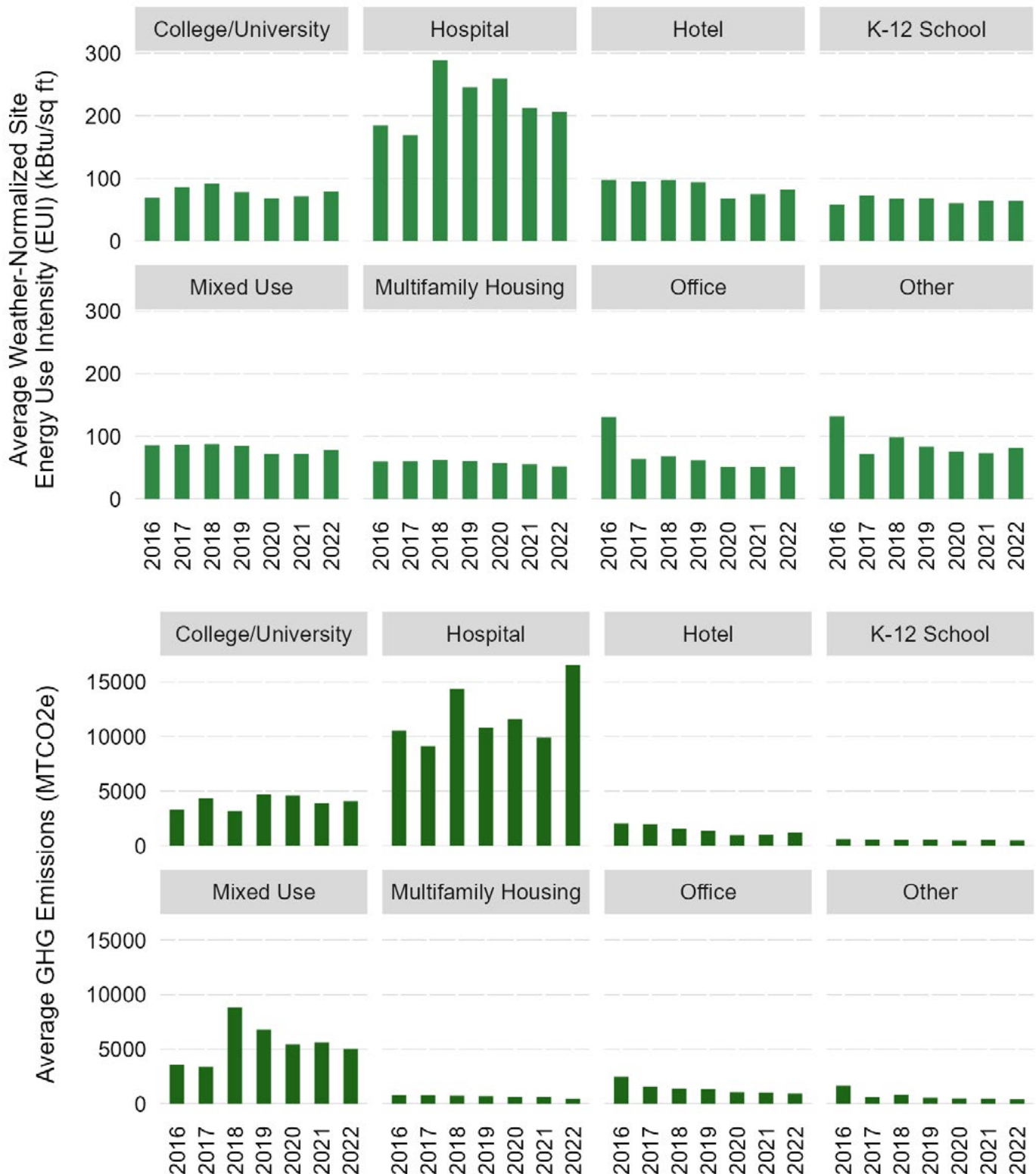
Public Building Performance

Energy use and emissions in public buildings continue to decline, but at a slower rate than private buildings. However, public buildings had lower baseline (2016) energy use and emissions values due to foundational policies like the Green Building Act of 2006. District-owned buildings are also subject to policies like the Clean Energy DC Building Code Amendment Act and programs like BEPS to ensure that public buildings are also contributing to District-wide goals.



Building Performance by Use

A building's energy use and GHG emissions will often differ based on the building's particular use. Data on energy use and emissions reductions progress for buildings used for colleges and universities, hospitals, hotels, schools, mixed use buildings, multifamily housing, offices, and other buildings are presented below.



Project Spotlights

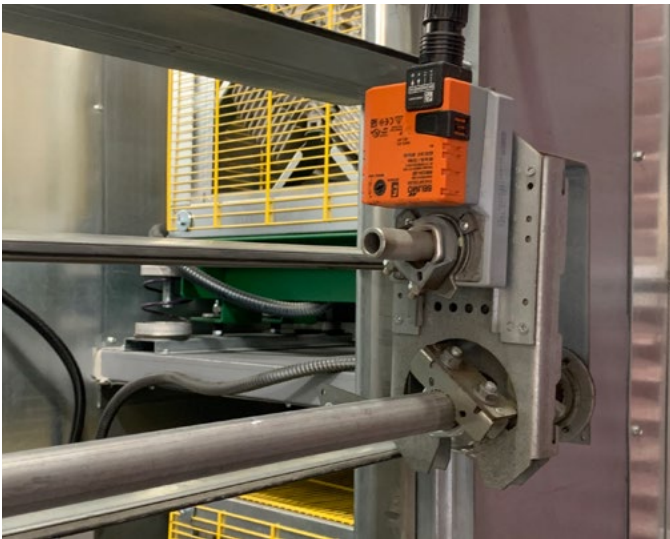
1441 L Street NW



1441 L Street NW underwent a renovation in 2019 to update the façade and energy efficiency of the 1960s commercial office building. A recipient of a 2019 DOE Net-Zero Energy Project Design Assistance grant and 2020 District Sustainability Award, 1441 L Street achieves near net-zero energy performance, despite using 100% outdoor air ventilation for improved indoor air quality. This 12-story commercial office building is a demonstration that occupant health and environmental sustainability goals can coexist.

The building's heating, ventilation, and air conditioning (HVAC) system delivers 100% outdoor air using a dedicated outdoor air system (DOAS) that is 2.5 times larger than required by code. This reduces the accumulation of air pollutants, including carbon dioxide and airborne pathogens, like coronavirus. It also creates a healthy and productive atmosphere for office tenants.

1441 L Street NW generates 100,000 kWh of solar energy per year and achieves a near net-zero EUI of 17.4 kBtu/ft²/year. The building features maglev compressors, numerous energy valves and airflow measuring dampers. Its building automation system (BAS) uses sensors to monitor light, ambient air temperature, humidity, and carbon dioxide.



DOAS Unit

The building's HVAC system combines a DOAS with a chilled beam. This system effectively filters the outdoor air while controlling for both humidity and air temperature to improve indoor air quality and occupant comfort. The system also captures 1,440 gallons of water on an average summer day, which provides approximately one-third of the cooling tower make-up water.



Chilled Beam

The chilled beam system uses natural convection currents to cool the space. Warm air rises to the ceiling and passes through the chilled beam's water coils and then sinks back into the occupied building space, providing cooled, 100% outdoor air. In tandem with the DOAS unit, the chilled beam decouples the sensible (temperature) and latent (humidity) loads in the building, which makes the chilled beam unnecessary seven months out of the year. Thanks to the deep energy savings delivered by the DOAS and chilled beam design, the building demonstrates a near-net-zero EUI of 17.4 kBtu/ft²/yr.



Solar Array

232 solar photovoltaic (PV) panels line the roof at 1441 L Street and offer the capability of producing 100,000 kilowatt-hours of electricity per year. Since the renovations, the building's solar array has been operational for a year during the public health emergency. During this time, the building's energy consumption was offset up to 10-20% daily, during peak sunlight.

The Southwest Neighborhood Library



The newly opened Southwest Neighborhood Library is the first LEED Platinum public library in the District. It encompasses resiliency, biophilia, and reduced embodied carbon while serving as a public space for all residents. It includes features such as:

- Green roof
- 160,000 kWh/year solar array
- 2 XR4 battery cabinets
- Low-e glazing and auto-daylight controlled sun-shades
- Prefabricated timber structure
- Resilient landscaping
- Use of natural light and connection to the neighborhood
- Acts as a community resilience center during emergency events
- Reflects the culture and history of the community
- 69 kBtu/ft²/year targeted



Flooding Adaptation

The building design accounted for climate stressors and implemented strategies to minimize the heat island effect, solar heat gain, and flood risk. The rebuild eliminated the sub-terranean level to alleviate impacts from flooding and severe weather events. Landscaping around the building employs all indigenous and adapted species that buffer water surges and improve the quality of water that gets discharged into the combined sewer system.



Design Innovation

The design of the library's distinctive "crinkle" roofline and tall timber structure is a move towards modern technologies and low-carbon materials. The result is a series of dowel laminated wood panels that create a unique building massing and a memorable space within, while replacing carbon intensive concrete and steel. The roof and tall timber structures are prefabricated, significantly reducing the project's construction waste.



Solar For All

The Solar for All array atop the Southwest Library is designed to generate 160,000 kWh/year, offsetting the public and community amenities within the library. Any excess production is distributed to low-income families in the form of a utility credit through the Solar for All program.

The library's solar array is paired with battery storage to enable the building to serve as a community resilience center in the event of an emergency.



Policies and Programs

Key Milestones

The [**Clean Energy DC**](#) plan, finalized in 2018, lays out a roadmap for achieving the District's goal to cut GHG emissions, while modernizing the District's energy system. The plan focuses on emissions reductions in buildings, the energy supply, and transportation. Within the building sector, the Clean Energy DC plan focuses on a series of strategies to reduce energy use in both new and existing buildings.

In 2018, Mayor Bowser signed the District of Columbia [**Green Finance Authority Establishment Act of 2018**](#), officially making the District the first city in the United States to establish a green bank. The DC Green Bank's mission is to provide access to capital to grow the clean energy economy and develop a more equitable, resilient, and sustainable District.

The [**Sustainable DC 2.0**](#) plan, released in 2019, is the city's plan to make DC the healthiest, greenest, most livable city for all residents. It covers 13 topics: governance, equity, built environment, climate, economy, education, energy, food, health, nature, transportation, waste, and water. Each topic is organized into distinct goals, targets, and actions. Actions in the Built Environment section of Sustainable DC 2.0 make buildings healthier and more energy and water-efficient through data collection, regulation, and incentives.

The [**Clean Energy DC Omnibus Amendment Act**](#), passed by Council in 2018 and signed into law by Mayor Bowser in 2019, codifies many of the key strategies from the Clean Energy DC plan. One key component of the Clean Energy DC Act is the establishment of [**Building Energy Performance Standards**](#) (BEPS). The BEPS require large buildings that fail to meet a minimum energy performance standard to reduce their energy use within a six-year compliance cycle. The first set of BEPS were established on January 1, 2021.

The [**Clean Energy DC Building Code Amendment Act of 2022**](#) mandates the implementation of net-zero energy building codes by 2026, which was a major goal of both the Clean Energy DC and Sustainable DC 2.0 plans. These new codes will require that new or substantially improved buildings achieve net-zero energy use or better. Reaching the District's goal to eliminate carbon emissions by 2045 will require all new buildings to achieve net-zero energy in the near term, as the buildings built today will exist well into the future.

Further, at the Global Climate Action Summit in 2018, the District joined 18 global cities in adopting the C40 Cities [**Net Zero Carbon Buildings Accelerator**](#). As a signatory, the District has pledged to ensure that all new buildings would meet net-zero carbon standards by 2030 and that all buildings, new and existing, will be net-zero carbon by 2050. This is an additional commitment, instituted by C40 Cities, to deliver on the goals of the Paris Agreement. Because buildings account for roughly 72% of the District's greenhouse gas emissions, this net-zero carbon pledge is a critical step to drastically reduce building emissions and to meet the District's 2045 carbon neutrality goal.

The Clean Energy DC Building Code Amendment Act of 2022 mandates the implementation of net-zero energy building codes by 2026, which was a major goal of both the Clean Energy DC and Sustainable DC 2.0 plans. These new codes will require that new or substantially improved buildings achieve net-zero energy use or better. Reaching the District's goal to eliminate carbon emissions by 2045 will require all new buildings to achieve net-zero energy in the near term, as the buildings built today will exist well into the future.

With the passage of the [**Climate Commitment Act of 2022**](#), the District has accelerated the emissions reduction targets laid out in the Sustainable DC 2.0 and Clean Energy DC plans. The District will now pursue a 60% reduction in emissions by 2030 and carbon neutrality by 2045. To achieve these targets, the District must continue to be a national leader in creating bold policies and setting high standards for the built environment.

The [**Greener Government Buildings Amendment Act of 2022**](#) (GGBA) amended the Green Building Act of 2006 to require District-owned and -financed new construction and substantial improvement projects to maintain net-zero energy compliance. Under this law, a net-zero energy building conserves as much or more energy than the building uses in operation, obtains energy from renewable energy sources, and does not use on-site fuel combustion for the provision of thermal energy.

In 2022, the DCSEU completed its [**Low-Income Decarbonization Pilot**](#), which aimed to reduce energy costs and greenhouse gas emissions by replacing fossil fuel systems with high-efficiency electric alternatives like heat pumps and water heaters, paired with weatherization. Through the pilot, DCSEU assessed the costs, benefits, and challenges of electrification for low-income households. The pilot completed 10 projects, including upgrades to both single-family homes and a multifamily building- improving energy efficiency and comfort for residents.

Green Building Incentives

DC Sustainable Energy Utility

The [District of Columbia Sustainable Energy Utility \(DCSEU\)](#) helps District residents, businesses, and institutions save energy and money through energy efficiency and renewable energy programs. DCSEU does this by administering rebates and providing technical assistance for measures or improvements that provide cost-effective electric or fossil gas savings for all building types, including institutional, residential, and commercial. For institutional and commercial buildings over 100,000 square feet, a pay for performance incentive is available for energy conservation measures based on pre- and post-project metered data that determines actual energy saved. Funding can be obtained for measures implemented such as upgrading lighting, HVAC and refrigeration equipment, and smart thermostats. DCSEU has a team of experts available to provide building owners and design teams with personal business guidance and technical support. DCSEU also offers training, credentialing, and certification courses to District businesses to expand the local green workforce and local business opportunities.



Affordable Housing Retrofit Accelerator

The DCSEU, in partnership with DOEE and the DC Green Bank, is offering enhanced technical and financial assistance to owners and managers of qualifying affordable multifamily buildings that do not meet the District's Building Energy Performance Standards (BEPS) through the [Affordable Housing Retrofit Accelerator](#). Subject to funding availability, multifamily buildings over 50,000 square feet that do not meet the 2021 BEPS and that meet multifamily affordable housing criteria will be prioritized for FY 2022 assistance from the Affordable Housing Retrofit Accelerator. The program will help building owners:



- Understand the BEPS and how they apply to their building(s)
- Uncover energy-saving opportunities in their building(s)
- Identify resources, including financial incentives and financing opportunities, to help make upgrades that will reduce energy use
- Choose a Compliance Pathway and get support towards compliance with the BEPS requirements as determined by DOEE
- Cut energy costs, run the building more efficiently, and reduce GHG emissions

Solar for All

Through [Solar for All](#), a DOEE program, the DCSEU is working with local solar contractors to design and install solar photovoltaic (PV) systems at no cost to income-qualified District homeowners. In addition to installing solar directly on income-qualified single-family homes, the DCSEU is also working with solar developers to install large community renewable energy facilities (CREFs), or community solar, on structures around the District. Once installed and operational, these systems can provide electricity bill credits to save income-qualified District residents up to 50% off their electricity bill each year. This allows residents who live in multifamily buildings or whose roofs are not suitable for solar to access savings from Solar for All.



DC PACE

The [DC Property Assessed Clean Energy Program \(PACE\)](#) provides affordable, long-term funding for building upgrades and new construction that reduces utility bills and operating costs. Projects can receive up to 100% financing with no upfront costs to cover costs associated with energy, water, and stormwater upgrades. The program offers fixed and adjustable rates with terms of 20 years or more. The funding can be used to finance anything that contributes to efficiency beyond code requirements and has a return on investment. A special assessment is placed on the property taxes and is paid back over time. Currently, the program is available for all project types, except single family residential homes.



Green Bank

The goal of the [DC Green Bank](#) is to accelerate energy efficiency improvements and the deployment of clean energy technology by leveraging private investment, removing up-front costs, and increasing the efficiency of public dollars. Since its launch, the DC Green Bank has worked to:



- Attract private capital by leveraging public investment
- Use financial tools to increase capacity, accelerate lending, and recapitalize funds to support the Bank's mission
- Become a go-to resource for District residents, small business owners, and commercial developers interested in energy efficiency improvements, clean energy installations, and construction of green infrastructure
- Be a break-even entity, where the revenues earned from financing activity cover its operating costs over the long term

As of [2022](#), the DC Green Bank has issued \$31.1 million through loans, loan guarantees, credit enhancements, and bonds for clean energy and sustainability projects. In [2021](#), The DC Green Bank provided a \$250,000 pre-development loan to integrate energy efficiency and sustainability planning into the early phases of design for a Ward 7 building. In 2022, the DC Green Bank closed a \$7 million deal with PosiGen to deliver over 300 residential solar projects for low- and moderate-income residents, which resulted in an additional 3,600 kW of solar capacity within the District.

Green Building Fund

Overview

Fiscal Year	Revenues	Expenditures	Fund Balance
2017	\$1,896,147	(\$1,892,839)	\$1,148,255
2018	\$1,953,422	(\$2,086,206)	\$1,015,471
2019	\$2,054,092	(\$1,890,097)	\$1,179,466
2020	\$1,917,432	(\$1,926,324)	\$1,170,574
2021	\$1,853,673	(\$1,728,935)	\$1,295,312
2022	\$1,631,020	(\$1,418,706)	\$1,507,626

Ending Fund Balance = Beginning Fund Balance + Current Year Revenues – Current Expenditures – Any Fund Balance Sweeps

Financed through the financial security and green building fees that were also established by the Act, the Green Building Fund's purpose is to advance green building in the District. More specifically, the fund is used for several key purposes:

- Providing funds for the staffing and operating costs to provide technical assistance, plan review, inspections, and monitoring for green building projects;
- Education, training, and outreach to the public and private sectors on green building practices;
- The research and development of new green building practices; and
- Seed funding for projects that advance sustainability in the District.

Green Building Fund Grant Program

		Research	Educate	Engage	Innovate	Implement	Award
2020	Carbon Neutrality Strategy				X		\$39,050
	Net-Zero Energy Design Assistance			X	X	x	\$59,995
	Marketing & Behavior Change Study	X					\$90,000
	High Performance Building Hub		X	X			\$50,000
2021	Building Innovation Design Assistance		X		X	x	\$52,770
	High Performance Building Hub		X	X			\$100,000
2022	Deaf-Reach		X	X			\$65,000
	Community Forklift		X	X		x	\$15,000
	Euclid Strategies			X	X	x	\$26,070
	High Performance Building Hub		X	X			\$100,000
	NHT Communities		X	X		x	\$24,843

DOEE uses the Green Building Fund to support innovative projects to advance green building in the District through the [Green Building Fund Grant Program](#). Projects that receive grants focus on research, education, engagement, innovation, and implementation. Since 2013, over \$2.9 million dollars have been awarded through the Green Building Fund Grant Program.

DOEE awarded over \$600,000 in grants to multiple projects between 2020 and 2022. These funds were used to create and support a High-Performance Building Hub, conduct a marketing and behavior change study, develop a carbon neutrality strategy, create and implement equitable building electrification engagement, and assist various projects with green and net-zero building design. More information about each past project and their outcomes can be found on [DOEE's Completed Green Building Fund Grant Projects webpage](#).

Green Building Act Waiver Requests

The Green Building Act mandates that any exemptions granted to the requirements of the Act be reported. Exemption requests are reviewed on a case-by-case basis by the Green Building Advisory Council and DOEE and DOB staff after proper documentation is provided by the owner or owner's representative. No Green Building Act waivers were requested from 2020 to 2022.

Conclusion

The District has made significant progress toward its ambitious green building and climate goals, and this report highlights only a fraction of these accomplishments. For a more complete picture of the District's progress, see the Sustainable DC, Clean Energy DC, and Climate Ready DC progress reports available on the [**Sustainable DC website**](#).

Moving forward, new policies, programs, and incentives aim to accelerate the District's momentum and bolster its reputation as a leader in green building and climate action. District residents, businesses, nonprofit organizations, and government agencies are finding creative solutions and adopting innovative technologies to improve sustainability in the built environment. It will take continued collaboration between all of these stakeholders for the District to meet its climate targets and become the nation's healthiest, greenest, most livable city for all residents.

DOEE Contact:

Maribeth DeLorenzo

Deputy Director

Urban Sustainability Administration

Email: [**maribeth.delorenzo@dc.gov**](mailto:maribeth.delorenzo@dc.gov)

Website: [**doee.dc.gov**](http://doee.dc.gov)

DOB Contact:

Michael Brown

Deputy Chief Building Official

Office of Construction and Building Standards

Email: [**green.building@dc.gov**](mailto:green.building@dc.gov)

Website: [**dob.dc.gov**](http://dob.dc.gov)

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WE ARE WASHINGTON
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DC MURIEL BOWSER, MAYOR