

SUSTAINABLE DEVELOPMENT

A RESOURCE FOR ADVISORY NEIGHBORHOOD COMMISSIONS

BUILDINGS ARE AN INVESTMENT IN OUR COMMUNITIES.

They provide critical services, housing and create jobs. The ANC serves a critical role in the evaluation of development projects to ensure that new and significantly renovated projects benefit the neighborhood.

Below is a list of possible opportunities available to developers that would benefit the community. Development teams should incorporate these strategies in order to achieve greater environmental and sustainable performance. Additional resources and references are available at doee.dc.gov.



CLIMATE & RESILIENCE

Build developments that anticipate the impacts of climate change and help achieve the actions proposed in the [Climate Ready DC Plan](#).

- Locate developments outside of flood-prone areas and at least 1.5' above the 100-year floodplain elevation.
- Incorporate district energy, resilient electric [microgrids](#) and renewable energy to reduce greenhouse gas emissions.
- Cool roofs, trees, light colored pavement, and green space should be incorporated to reduce [urban heat island](#) impacts and save lives.

GREENING THE BUILT ENVIRONMENT

In the District, large development projects must meet the Green Building Act and DC Green Construction Code. This is similar to LEED Silver certification.

High performance buildings that exceed that baseline move the District closer to net-zero energy construction by 2032, provide healthy indoor environments for our residents, and increase the vibrancy and walkability of our neighborhoods.

Projects should be built to achieve one of the following certification levels:

- ↑ **LIVING BUILDING CHALLENGE** Comprehensive program for buildings that move beyond being less bad to become truly "regenerative"
- ↑ **NET-ZERO ENERGY CERTIFIED** Buildings that generate as much energy as they require with on-site technology such as solar panels.
- ↑ **PASSIVE HOUSE INSTITUTE US (PHIUS)** Program that supports highly insulated and extremely energy efficient buildings
- ↑ **ENTERPRISE GREEN COMMUNITIES** (affordable residential development only) Incorporate credit 5.2b: Nearing Net-Zero - to create net-zero "ready" buildings that could be energy neutral by installing additional generation or battery storage
- ↑ **LEED CERTIFICATION V4 AT THE GOLD LEVEL OR HIGHER** Holistic green building program that supports energy efficiency and healthy indoor air quality

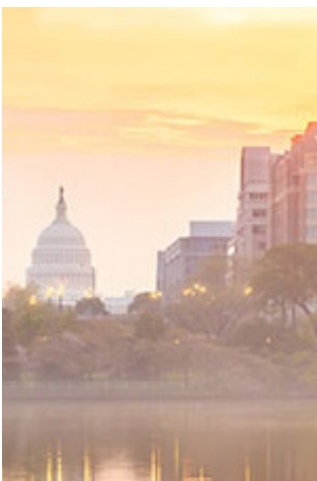
ENERGY EFFICIENCY

Buildings that use less energy reduce pollution, conserve resources, and support economic development. Incorporate strategies to achieve minimum efficiencies of 10% or more beyond baseline building code.

- [Integrated design techniques](#) and energy modeling save construction cost and should be used throughout each phase of the design process.
- Incorporate automatic lighting controls and daylight harvesting along with building automation systems to save energy and reduce light pollution.
- Incorporate innovative technology including: fuel cell, CHP micro turbine, geothermal, wastewater heat recovery, variable refrigerant flow heat pumps, and other technology to reduce the building's energy use.



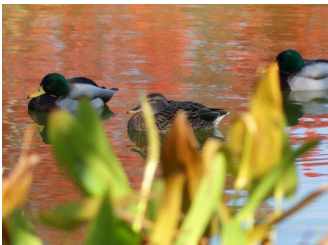
Owners reported ROI improved by 19.2% for existing building green projects and 9.9% for new construction.



Learn more about Green Buildings at doee.dc.gov

SUSTAINABLE DC GOALS FOR BUILDING AND DEVELOPMENT

Cut energy use 50%
Cut GHG emissions 50%
Cut GHG by 80% by 2050
Increase renewables by 50%
Cut water use by 40%
Net-zero energy new buildings
Retrofit 100% to meet NZE



Shade trees capture stormwater, provide habitat for wildlife, and reduce the urban heat island effect.



SOLAR & CLEAN ENERGY

Renewable energy increases resilience, reduces greenhouse gas emissions, and decreases pollution. DC has among the best financials for solar in the U.S. because of the Renewable Portfolio Standard bill.

- Maximize opportunities for roof and wall mounted solar panels. Incorporate solar to supply a minimum of 3% of the building's energy use.
- Incorporate energy sourced from wind, solar, biogas, or other renewable energy sources.
- Measure, report, and take actionable steps to reduce the building's carbon emissions including the purchase of clean power.

WASTE MANAGEMENT

In 2015 the District of Columbia disposed of over 115,000 tons of waste. Reducing waste reduces pollutions in our neighborhoods, streams and rivers, creates jobs, and saves money.

- Conveniently locate recycling facilities. Include adequately sized trash and recycling bins on each floor, and built-in trash and recycling bins in residential units to encourage recycling.
- Anticipate waste reduction requirements and design loading docks to have adequate space for future waste stream separation including recycling and organic composting.
- Install smart-sensors on dumpsters to track and minimize truck routes, reduce trash pick-up, and maximize operational savings.

WATERSHED & HABITAT

Green infrastructure captures stormwater and reduces pollution and reduce flood risks while also helping keep neighborhoods cool.

- Exceed minimum green area ration (GAR) and stormwater retention requirements and install voluntary green infrastructure to generate and sell Stormwater Retention Credits.
- Maximize opportunities to capture street runoff including engineered tree pits, bioretention facilities with curb cuts for roadway runoff, and permeable pavement.
- Landscape with native plants that support pollinator species and diverse natural habitats.
Increase tree canopy by providing adequate structural soil volume and planting large shade trees.

WALKABLE & BIKABLE COMMUNITIES

Promote walkable, bike able, transit oriented development that helps to reduce GHG emissions.

- Check out DDOT's MoveDC Plan for strategies to increase neighborhood connectivity.

FINANCING & INCENTIVES

DOEE provides many incentives to help developers take reduce first costs and maximize operational savings.

DCSEU: Provides financial incentives, no cost upgrades, and technical assistance

PROPERTY ASSESSED CLEAN ENERGY (PACE): Funding for energy efficiency improvements and clean energy

RIVERSMART: Rebates for rain gardens, trees, rain barrels, pervious pavement and more

RIVERSMART REWARDS: Earn discounts on stormwater fees on the property's water bill by reducing stormwater runoff.

STORMWATER RETENTION CREDIT TRADING PROGRAM: Earn revenue by installing green infrastructure that protects rivers and provides other benefits.

CONTACT AT DOEE:
MIKE MATTHEWS
(202) 536-7666
MICHAEL.MATTHEWS@DC.GOV

★ ★ ★ DEPARTMENT
OF ENERGY &
ENVIRONMENT
GOVERNMENT OF THE DISTRICT OF COLUMBIA