

# A LEGACY OF SUSTAINABILITY

THE ARCHITECT OF THE CAPITOL'S REPORT ON ENERGY AND CONSERVATION

JUNE 2021



# OVERVIEW

The Capitol campus is an intricate network of buildings, infrastructure and thousands of people who work in or visit the properties managed and maintained by the Architect of the Capitol (AOC). The agency develops its commitments for sustainability within this same complex matrix of buildings, infrastructure and people.

The AOC's practices in the design, construction, maintenance and preservation of our nation's cultural assets epitomize sustainable development. We believe that sustainable buildings can be maintained indefinitely and represent the potential for significant resource conservation.

The AOC focuses on energy conservation, which saves utility funding, allowing savings to be reinvested into our buildings and infrastructure. The AOC has used energy performance contracting and energy savings over the past twelve years to fund more than \$200 million in building and infrastructure energy improvements. These investments have resulted in reduced long-term energy demand and reduced greenhouse gas emissions across Capitol Hill.

Over the last fifteen years the AOC has reduced its energy intensity level by more than 50 percent. As a result of these energy savings, the U.S. House of Representatives building-related carbon footprint has been reduced by 48 percent. The AOC uses Department of Energy (DOE) calculations and tools to validate and track these energy intensity and greenhouse gas emission reductions.

These energy savings and greenhouse gas emission reductions were made possible because of significant project funding support and performance contracting approval from numerous groups including the House Committee on Appropriations.

The AOC focuses and carries out its sustainability and energy conservation efforts through three primary channels: **Buildings and Landscapes, Infrastructure and People.**



# BUILDINGS AND LANDSCAPES

- The AOC is responsible for the operation and care of more than 18.4 million square feet of facilities, thousands of fine art works including sculptures and paintings, more than 570 acres of grounds and a fleet necessary to support operations.
- This responsibility also includes building exterior envelopes, mechanical and electrical systems, digital data, interior finishes and historically significant architectural elements, art and library collections.



# INFRASTRUCTURE

- One major component of the AOC's infrastructure is the Capitol Power Plant (CPP) and utility distribution system.
- The CPP provides steam and chilled water for heating and cooling to over 20 buildings across Capitol Hill, as well as the Government Publishing Office, Folger Shakespeare Library, Postal Square Building and Union Station.
- The CPP produces more than 60 million kilowatt hours of electricity annually via its cogeneration system, which is equivalent to the electricity consumed by 5,700 homes.
- Building systems are controlled using a large-scale infrastructure automation network with nearly one million individual control points.
- Water is distributed and collected through miles of water main pipes, irrigation systems and stormwater collection systems.
- The AOC manages additional infrastructure essential to the safe and secure operation of the Capitol campus, such as high voltage electrical systems, telecommunication controls, security systems and transportation within the Capitol campus.



# PEOPLE

- The AOC employs over 2,200 full-time employees, serves 30,000 tenants and welcomes nearly 5 million visitors annually.
- Across Capitol Hill, architects, engineers and technicians design, enhance and maintain new and historic structures, spaces and building systems. Employees in various trades such as electricians, mechanics, gardeners, masons and carpenters maintain the buildings and infrastructure.
- The facilities maintained by the AOC are occupied by U.S. senators, representatives, Supreme Court justices and thousands of other public servants.
- The AOC works to positively influence the behavior of the tenants and visitors with design elements that promote environmental responsibility.
- The AOC works with other congressional stakeholders such as the House Chief Administrative Officer (CAO), Library of Congress and U.S. Capitol Police to implement energy conservation and waste reduction strategies across the Capitol campus.

# ★ SUCCESS

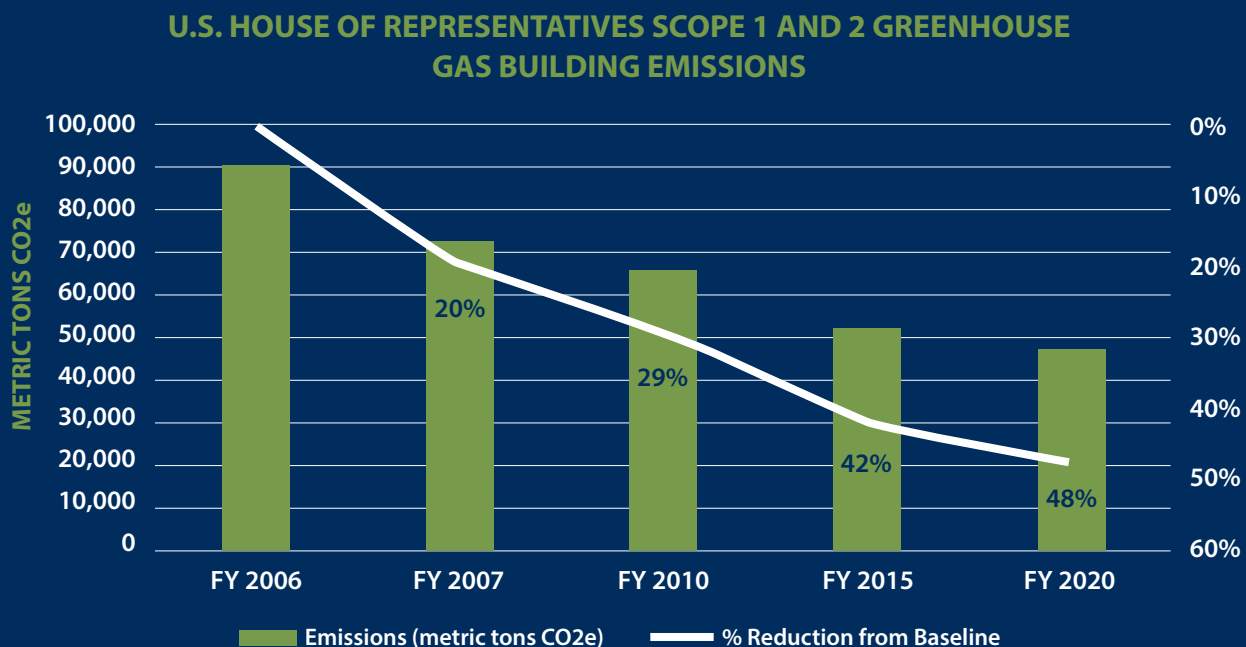
Fifteen years ago, with the support and encouragement of Congress, the AOC embarked on an aggressive plan to implement sustainable systems and practices across the Capitol campus. As a result, the campus is more efficient and resilient.

In Fiscal Year (FY) 2015, the AOC was one of a handful of federal agencies — and the only legislative branch agency — to successfully meet the final Energy Independence and Security Act of 2007 (EISA 2007) mandate, reducing energy intensity consumption by 30 percent from an FY 2003 baseline. After achieving the EISA 2007 energy reduction goal, the AOC established a new goal to reduce energy intensity by 50 percent by FY 2025.

Through our continued and sustained focus on **Buildings and Landscapes, Infrastructure and People** the AOC has accomplished extraordinary results. The AOC continues to be among federal government leaders with respect to energy conservation.

According to recent DOE data, the AOC outperformed all but three federal agencies with respect to energy intensity reductions. By the close of FY 2020, the agency had reduced its energy use intensity by 50.8 percent from FY 2003 levels. This monumental achievement allowed the AOC to fulfill its 50 percent FY 2025 energy reduction goal five years early. Through ongoing funded efforts, further energy reductions are expected.

With these impressive energy reductions, the AOC and House of Representatives greenhouse gas emissions have been significantly reduced. As shown in the figure below, through FY 2020 the House of Representatives Scope 1 and 2 building-related greenhouse gas emissions are down 48 percent from the FY 2006 established baseline.



Water usage in FY 2020 was 28.8 percent below our benchmark FY 2007 levels, exceeding our FY 2020 goal of a 26 percent reduction.

Over the same 15-year period, the AOC grew its recycling program tenfold. In FY 2020, the AOC recycled 1,900 tons of office waste, achieving a 38 percent occupant waste diversion rate. This diversion rate was down from previous years, impacted by the COVID-19 pandemic as more office staff worked from home, producing less paper. Paper is the largest recycled item by weight. Additionally, as our staff worked to keep the facilities and themselves safe, significant amounts of personnel protective equipment entered the waste stream.

As construction projects continued in earnest during the pandemic, the AOC diverted 10,000 tons of construction and demolition debris from the landfill, recycling 98 percent of all construction debris generated. The AOC's Capitol Grounds and Arboretum and U.S. Botanic Garden teams have also expanded composting of green waste and reduced pesticide applications and chemical-based fertilizers across the Capitol campus.

Fifteen years ago, water and utility consumption in the AOC's buildings was unmetered. With funding support from the House of Representatives in the late 2000s, the AOC installed 230 building-level meters to track steam, electricity, chilled water, potable water and steam condensate. The agency also has export meters at the CPP for steam and chilled water. These meters populate an enterprise meter data system, providing real-time consumption metrics to energy managers and facility personnel. Instantaneous information allows AOC staff to monitor and quickly adjust systems that fall out of tolerance with their established performance metrics. The agency has implemented energy and cost saving technologies such as new lighting and occupancy sensors across the Capitol campus. Through continued House support of our appropriations requests, the AOC successfully installed a green roof on the U.S. Botanic Garden Conservatory and maintains two other green roofs on congressional office buildings. The agency has adopted new technologies and equipment, including heating, ventilation and air conditioning (HVAC) equipment, plumbing equipment, computer servers and other machinery that are environmentally friendly. These efforts have realized savings through increased efficiency, improved occupant comfort, lowered emissions and decreased replacement cycles.

The AOC has integrated pest management (IPM) and planting practices on the grounds and at the U.S. Botanic Garden, including certification of Bartholdi Park as a sustainable initiatives (SITES) Gold facility. SITES-certified landscapes help reduce water demand, stormwater runoff, energy consumption and improve air quality.

In 2018 the AOC activated the cogeneration turbine at the CPP. Cogeneration uses highly efficient, clean, fuel-burning technology, which supplies both steam and chilled water to 23 facilities across the Capitol campus. The cogeneration turbine provides two-thirds of the electricity needed annually to operate our chilled water system, which supports air conditioning needs across Capitol Hill buildings. This on-site electricity production provides an important resiliency capability within the power plant in the event of electrical grid outages. With the completion of the cogeneration system, the AOC achieved significant energy intensity savings, enabling it to meet the FY 2025 50 percent energy reduction target five years early. As operation of this system continues, it will enable the AOC to continue providing a clean and reliable source of chilled water and steam while decreasing unnecessary fuel consumption.

We are pleased to offer this report on the AOC's commitment to energy conservation and sustainability and highlight significant greenhouse gas reductions and sustainability practices throughout the U.S. House of Representatives.



# AOC COMMITMENT TO ENERGY AND SUSTAINABILITY





# BUILDINGS AND LANDSCAPES

The Architect of the Capitol operates and maintains more than 18.4 million square feet of facilities and 570 acres of grounds. By maintaining an enterprise-wide focus on energy conservation and sustainability, we have helped make all of our buildings more efficient and sustainable. The AOC focuses conservation and sustainability efforts on building systems throughout our portfolio to positively impact building ventilation, thermal comfort, material selection, construction practices and maintenance material usage. During the design, construction and operation of Capitol campus facilities, the AOC promotes sustainable practices in our buildings.

## ACCOMPLISHMENTS

- Exceeded agency goals to achieve a 50 percent energy intensity reduction by FY 2025 and a 35 percent greenhouse gas emissions reduction by FY 2021.
- Provided employee training to address building controls operations and maintenance skills gaps in support of more comfortable and efficient buildings.
- Formulated customized building performance plans with targets that are reviewed and updated annually to support continued energy conservation efforts.
- Converted major legacy building mechanical systems to state-of-the-art, direct digital control systems in support of occupancy comfort and energy conservation goals.
- Implemented four energy savings performance contracts (ESPC), which invested \$150 million in building upgrades funded entirely through energy savings.
- Used a building energy performance monitoring program that data mines thousands of devices throughout our facilities for irregular or inefficient operation to drive continued performance improvements, which save energy.
- Upgraded light fixtures in the House office buildings with energy efficient components. Newer LED technologies, dimming, occupancy and daylight harvesting components have provided more than 50 percent energy fixture savings in most cases.
- Implemented the industry-leading sustainability SITES initiative to support healthy green spaces on new landscaping projects.
- Certified green roof installations with the District of Columbia to quantify stormwater runoff reductions. The O'Neill House Office Building green roof diverts 18,000 gallons of stormwater runoff per year. Certification allows the AOC to cost effectively use these savings to comply with stormwater requirements for other construction projects.
- Employed a sustainability scorecard system to highlight and incorporate sustainability best practices for all Line Item Construction Program projects.
- Implemented sustainable planting practices with native plants, reduction of annuals and use of perennial plantings to improve landscape health.
- Applied enhanced IPM practices through careful maintenance applications, training and use of organic-based pesticides.
- Received SITES Gold certification for Bartholdi Park for capturing 100 percent of rainfall and keeping runoff out of local storm sewers.
- Continued to maintain over 4,600 trees that provide eco-benefits worth \$250,000 to the Capitol Hill community:
  - 700,000 pounds of CO<sub>2</sub> sequestered annually
  - Nearly 8 million gallons of water saved annually through interception and avoided runoff
  - Over 250,000 kilowatt-hours saved annually

# CURRENT U.S. HOUSE OF REPRESENTATIVES BUILDING INITIATIVES

## BUILDING ENERGY CONSERVATION EFFORTS

The AOC continues to implement new energy conservation measures throughout the House office buildings. During the pandemic, the House Office Buildings jurisdiction completed significant work to make the building lighting systems more efficient. As LED lighting technology has progressed and costs have come down, the House Office Buildings initiated a program to update hallway light fixtures with new LED bulbs. These lighting retrofits produce significant electricity savings. Hallway lighting has also been dimmed to save energy during low building occupancy periods. The newly renovated Rayburn House Office Building parking areas have LED lights with integrated occupancy sensors, enabling thousands of light fixtures to dim when there is no activity in an area.

Significant work is underway to keep the mechanical systems operating efficiently. Steam trap audits are routinely conducted to ensure that heating systems operate at maximum efficiency; failed steam traps are identified and replaced. As interior office areas are renovated, new digitally controlled mechanical devices are installed and connected to our building automation systems. The addition of these new devices allows more precise monitoring of these spaces for comfort and efficiency.

Through the Cannon House Office Building Renewal effort, the building will become one of the most energy efficient in the AOC's portfolio. After renovations are complete, the Cannon Building will consume 56 percent less energy and use 30 percent less water. The building exterior landscapes were designed to conserve water and the AOC anticipates the building's post-renovation irrigation water usage will be 50 percent lower. These energy and water savings and the reuse of the historic structure provide significant carbon emission savings.

## RETRO-COMMISSIONING EFFORTS

Retro-commissioning is a focused effort to review building mechanical systems and operating parameters to validate efficient operation and functionality of equipment. Over time, building energy systems fall out of peak efficiency ranges. The AOC has used retro-commissioning throughout our energy conservation program to periodically retune buildings and bring them back to peak efficiency. In FY 2021, we will begin retro-commissioning efforts in the Rayburn Building, Longworth House Office Building and Capitol Visitor Center. During this retro-commissioning effort, all the major building mechanical systems will be reviewed for peak operation. Any issues will be identified and repaired by AOC staff. We expect these efforts to produce additional energy savings and help to ensure conservation strategies are operating effectively.

## RENEWABLE ENERGY OPPORTUNITIES

The AOC is partnering with the DOE's National Renewal Energy Laboratory (NREL) to complete an analysis of potential renewable energy opportunities. NREL will use their REopt™ modeling platform, which identifies the combination and size of distributed energy technologies and cost-optimal control strategies to minimize the life-cycle cost of energy to a site. REopt™ is a techno-economic optimization model that considers a range of value streams for renewable energy and energy storage. Based on the available value streams, as well as site characteristics, technology costs, and current cost of energy, it determines the optimal dispatch strategy to maximize revenues for a given scenario. This analysis will be completed in early 2022 and used to inform future energy reduction and greenhouse gas reduction opportunities. Early analysis shows outstanding economic payback for rooftop solar photovoltaic opportunities on Capitol Hill. Additional work is underway to fully validate rooftop solar photovoltaic feasibility.





# INFRASTRUCTURE

The AOC operates and maintains a vast network of infrastructure assets. Major components include the CPP, steam and chilled water distribution system, extensive irrigation systems and a large building automation system network. The AOC maintains an extensive sidewalk and road transportation infrastructure system as well as a large critical power infrastructure to keep our most critical assets operational. The AOC aims to reduce its energy, greenhouse gas and water footprint through a sustained focus on our infrastructure assets across the Capitol campus.

## ACCOMPLISHMENTS

The agency's implementation of multiple ESPCs, a Utility Energy Service Contract (UESC) and other infrastructure investments have saved the AOC more than \$200 million over twelve years through cost avoidance and reduced the agency's long-term energy demand. Much of these savings have resulted from significant improvements to our infrastructure assets. Some of our most impactful accomplishments include:

- Implemented a UESC and completed the construction of a cogeneration system that provides for more efficient production of electricity and steam heat.
- Renewed the CPP Refrigeration Plant, which resulted in significant efficiency and reliability improvements for our chilled water system that supports Capitol campus building air conditioning systems.
- Significantly reduced the use of coal as a steam generation fuel source, which has resulted in significant greenhouse emission reductions.
- Focused on maximizing the use of free-cooling, which uses lower outdoor air temperatures to meet year-round cooling demand for spaces like data centers and IT closets, to improve CPP efficiency and save resources.
- Optimized the O'Neill House Office Building chiller plant to incorporate free-cooling strategies. This plant, which serves the O'Neill and Ford Buildings now provides more efficient air conditioning by automatically using free-cooling when outside temperatures allow.
- Focused on operational improvements to save energy by minimizing in-plant losses, making distribution system repairs and conducting steam and chilled water system audits to identify savings opportunities.
- Used advanced plant-level energy meter data to closely monitor and improve steam and chilled water system performance.
- Installed advanced utility meters to support energy conservation strategies and created a utility data enterprise system that summarizes hundreds of utility meters throughout our infrastructure.
- Completed a potable water system assessment for buildings and landscapes. This assessment provided building-specific water consumption metrics that have been used to identify and resolve areas of abnormally high water consumption.
- Reduced the size of the internal vehicle fleet to lower the emissions associated with transportation, while replacing older vehicles with low-greenhouse gas and zero-emissions vehicles.

## CURRENT INFRASTRUCTURE INITIATIVES

### UTILITY METERING

Early investments in utility metering allow continuous monitoring of all major utility systems throughout the AOC's building portfolio. These meters and the corresponding data are used to monitor and improve energy performance. The AOC's House Office Buildings jurisdiction is installing and integrating energy submeters to provide more refined energy consumption information. These submeters will provide electricity and chilled water usage data at an end-use level versus the current building-level information. This increased granularity of utility meter data will allow for more focused analysis of consumption and efficiency. The new submeters will be integrated into our building automation systems to allow monitoring by our building analytics software tool.

The main steam station in the Longworth Building is being upgraded to provide for a safer and more efficient steam system. This project is also installing steam submeters to provide additional steam consumption information. This new infrastructure will allow the building to improve steam usage efficiency.

### BUILDING AUTOMATION SYSTEM NETWORK EXPANSION

Numerous older building components are controlled by legacy building operation control systems. These older control systems often operate locally at the building equipment level, which does not allow for real-time monitoring via the building automation network or optimization through the building analytics system. The AOC has documented all of these legacy devices and has begun to retrofit the most critical systems to allow real-time control and monitoring within our building automation systems.

### CAPITOL POWER PLANT UTILITY MASTER PLAN UPDATE

The CPP is currently updating its Utility Master Plan with a focus on supporting these long-term goals:

- Provide energy to Capitol Hill that is safe, reliable and resilient
- Minimize costs associated with delivering energy to Capitol Hill
- Provide energy in a sustainable and environmentally responsible manner

This utility master planning effort is being supported by a diverse independent panel of district energy industry subject matter experts. The DOE's NREL is also providing objective project review and feedback. The Utility Master Plan process is scheduled to be completed in early 2022. The Utility Master Plan will provide an important road map of projects and priorities in support of a reliable, resilient and sustainable utility system infrastructure.

### TRANSPORTATION

The electric vehicle charging system continues to grow as more staff purchase electric vehicles. As required in legislation, 2 U.S.C. §§ 2070-2171a, the costs associated with private vehicle charging are collected and deposited into a U.S. Department of Treasury account. The AOC is expanding the charging infrastructure to provide for high-capacity charging locations in the Rayburn and Cannon building garages. As with current infrastructure, these new, higher capacity charging stations will fully recover costs to comply with legislative requirements.

In support of growing bicycle commuters, the AOC has installed several bike service stations. These service stations offer a range of bicycle tools and pumps in areas with heavy bicycle usage. Bike storage infrastructure and helpful

pavement marking have been incorporated into the Rayburn Garage Interior Rehabilitation Project. The House provides shower facilities for walkers and cyclists, in addition to the showers located in the CAO House Staff Fitness Center. Bike racks are available for more than 200 bicycles inside and outside of the House office buildings.

The AOC is currently conducting a Transportation and Mobility Study for the U.S. Capitol campus. This study will provide the foundational documentation for moving the Capitol campus toward an innovative, forward-thinking, transportation network that improves safety, security, efficiency, sustainability and accessibility across all modes of travel. The study will evaluate existing conditions and contemplate the impacts of various options on users, visitors and the surrounding neighborhoods and city. When complete, it will serve as one of several inputs to the upcoming Capitol Complex Master Plan (CCMP).



## PEOPLE

The AOC works to positively influence and promote environmental responsibility. The operation and maintenance of the Capitol campus involves a great number of materials that enter and exit the campus, whether they relate to construction, daily operations, site maintenance or generated waste. Through education and training the AOC aims to empower our staff to maintain and operate the facilities in a sustainable, environmentally conscious manner.

## ACCOMPLISHMENTS

- Strengthened recycling programs by following best standards and practices to maximize waste reduction; AOC jurisdictions increased diversion rates and improved communications and engagement in recycling programs, especially with vendors and visitors.
- In FY 2020, the AOC's House Office Buildings jurisdiction recycled 99 percent of the 8,350 tons of construction debris generated. This volume of recycled material is the equivalent of 1,350 construction debris dumpsters.
- Created a House sustainability community, which meets quarterly to bring together sustainability subject matter experts in the legislative branch to share best practices, identify areas for improvement and develop solutions.
- Executed a sustainable cleaning and a vendor-managed inventory contract to provide certification training for labor/custodial and other trade shops to meet Green Seal and Cleaning Industry Management standards. The Green Seal program supports a more sustainable building environment by adopting green cleaning products and standards.
- Coordinated with the House CAO and food service vendor Sodexo on increasing compostable or recycling takeaway containers. This work supports our recycling waste diversion and composting goals.
- Developed a comprehensive scrap metal recycling program, which produces revenue that is reinvested back into energy conservation and recycling initiatives.
- Doubled the collection of outdoor recycling materials across Capitol Hill. Annually, 2.1 million bottles and cans are recycled from the outdoor recycling containers.
- Instituted sustainable design standards for construction and renovation projects to support healthier indoor air quality and use of recycled content materials.
- Conducted monthly lessons-learned sessions to share best practices with designated energy managers across the agency.

## CURRENT PEOPLE INITIATIVES

### DIGITAL CONTROL TECHNICIAN SKILLS GAP INITIATIVE

As our building automation system has grown, the AOC has identified a skills gap of adequately trained technicians to maintain and optimize these new digital systems. The AOC is creating a new digital control technician job series targeting growth and skill development for entry-level technicians through senior leader mechanics. The program also includes a detailed training program to help entry-level technician's advance through their career ladder. Using this targeted training program, the AOC expects to fill much of this critical gap with existing staff members looking for technical career advancement opportunities.

### COMPREHENSIVE WASTE REDUCTION AND RECYCLING PROGRAM

The AOC tracks more than 20 different consumable waste streams, or materials consumed by building occupants on a daily basis. In an effort to identify more opportunities for improvement, the House Office Buildings jurisdiction conducts a buildings-wide waste audit every two years. The last waste audit recommended the House Office Buildings increase its diversion rates by adding a composting program. In April 2021, the House Office Buildings joined the Senate and U.S. Capitol composting program and will focus on collecting pre-consumer kitchen food waste for composting in the Rayburn, Longworth and Cannon building cafeterias. The AOC worked closely with the House CAO to train Sodexo staff to ensure adoption of this new program in the food service areas. There are also e-waste collection locations in each House office building where occupants can recycle old cords, chargers, batteries, printer toners and other personal, small electronic devices. Together these initiatives support a robust waste reduction and recycling program within the House of Representatives.

### SUSTAINABLE PURCHASING

In FY 2019, the House Office Buildings jurisdiction implemented a sustainable green cleaning supply contract. The contract consolidated vendors and provides the necessary green cleaning products needed for all House Office Buildings jurisdiction cleaning efforts. This ongoing contract provides sustainable or certified products for use in all building cleaning applications, including sustainably sourced paper products and Green Seal and Cleaning Industry Management standard-certified cleaning products. The program includes dilution control and storage systems to support improved indoor environmental conditions for all House building occupants and visitors.

### CONSTRUCTION WASTE MANAGEMENT

All the major construction projects in the House of Representatives contain contract clauses to maximize diversion of construction debris from landfills. Minimum standards in these contracts typically call for a 90 percent construction debris recycling rate. The majority of the construction debris is collected and sorted off-site for recycling. In FY 2020, the House projects recycled 99 percent of the 8,350 tons of construction debris generated through renovation efforts.

### OUTREACH AND INTERNAL PARTNERSHIPS

The House Office Buildings jurisdiction initiated a House sustainability community with partner House agencies, including the House CAO, U.S. Capitol Police House Division and the House Sergeant at Arms offices to collaborate on programmatic areas and transition to a more sustainable operation in the House office buildings. This partnership promotes a holistic approach and provides a platform for AOC staff to collaborate with their counterparts and participate in mutually beneficial endeavors, such as the House Wellness event that educates House staff on sustainability efforts.

# FUTURE OPPORTUNITIES

The AOC is confident that it has the programs, systems and management in place to support a sustainable environment. In positioning itself for success, the AOC will continue investing responsibly and will proactively enable the integration of modern eco-friendly technologies. Upcoming initiatives the agency is exploring include, but are not limited to the following:

PROJECT	IMPLEMENTATION	COMPLEXITY	COST (\$-\$\$\$)
Eliminate coal infrastructure at the Capitol Power Plant	▲▲▲	■ ■ ■	\$\$
Install a second turbine at the Capitol Power Plant (cogeneration)	▲▲▲	■ ■ ■	\$\$\$
Increase House green and pervious space by 15 percent	▲▲	■	\$\$
Install electric/thermal/water submetering	▲▲	■	\$\$
Employ alternate stormwater capture technologies	▲▲	■ ■	\$\$\$
Complete interior/exterior lighting system upgrades	▲▲	■	\$\$
Ensure comprehensive upgrade to complex irrigation systems	▲▲	■ ■	\$\$\$

# AOC OF THE FUTURE

Under Mr. Blanton's leadership, the AOC has begun a focused transformation effort to create the AOC of the future. Central to creating the AOC of the future is a sustained focus on several initiatives: Vision 2100, Enterprise Asset Management (EAM) and AOC University will play an important role in shaping and influencing the sustainability, energy conservation and greenhouse gas emissions goals for the AOC and the House of Representatives. Other important initiatives supporting energy conservation and sustainability goals include our reorganization effort and the development of a Building Official Program.

## ENTERPRISE ASSET MANAGEMENT AND BUILDING OFFICIAL PROGRAM

The AOC is embarking on a revision of internal processes and procedures to enable a more transparent connection between the work the AOC does managing and operating AOC assets and the value delivered to our stakeholders. The AOC is using the ISO 55000 Enterprise Asset Management standard as the basis for developing enterprise asset management. The EAM initiative includes a green team focused on incorporating energy conservation and sustainability processes into the EAM system. Currently, much of our energy conservation, recycling and sustainability performance information is housed within different systems and programs. Consolidating all these disparate systems under one, overarching EAM program will support better decision-making across our entire asset portfolio.

The AOC has launched a Building Official Program to minimize and manage risk. This program will improve our safety and code compliance, to keep our iconic buildings maintained for future generations. A formal Building Official Program centralizes building code supervision and ensures that infrastructure and construction work being performed at AOC-managed facilities and grounds consistently meet established building code standards. This initiative will support energy conservation and sustainability goals by ensuring compliance with the AOC energy conservation code used for new construction and renovation projects.

## VISION 2100

Through the Vision 2100 effort the AOC will engage with congressional stakeholders in helping to map the vision for the Capitol campus. Within the Vision 2100 development process, stakeholders will have the opportunity to provide feedback related to long-term energy conservation and sustainability goals. Specific environmental goals developed through the Vision 2100 process could include a new commitment to energy conservation, energy generation, resiliency and greenhouse gas emission reductions. The ongoing CPP Utility Master Plan will provide valuable input to this effort, helping to validate the feasibility of any new long-range energy conservation and sustainability goals. With the culmination of the Vision 2100 planning effort, the AOC will complete a CCMP update and develop a five year fiscal plan. The CCMP and five year fiscal plan will provide an implementation road map of projects necessary to support future sustainability, environmental and greenhouse gas emissions goals.

## AOC UNIVERSITY

Under the AOC University, the AOC will foster individual and organizational learning and knowledge that drives business results and supports the AOC in achieving its goals. Transforming employee learning requires stronger alignment of training and development offerings with our current and future business needs in addition to implementing cross-agency efficiencies. The AOC will use the AOC University to train technical staff on energy conservation principles in support of conservation and sustainability goals. A recently created customized training curriculum for HVAC digital control technicians will help create a group of highly skilled technicians to operate and harness the power of our vast campuswide digital control systems. An additional focus area will be to use the AOC University to inform our entire staff of AOC sustainability goals and how their actions can help to support achieving these goals.

## REORGANIZATION

The reorganization initiative includes reassigning our high voltage electricians and emergency generator technicians to the CPP. Under this new organization, these technicians who support our critical power systems are centralized with other critical utility system support staff. Centralizing the critical power function with the existing CPP utility group enables the AOC to be more resilient to utility and electrical power issues.

The AOC is committed to strengthening a culture of sustainability aligned with fiscal responsibility. We appreciate Congress' support of our efforts to continue a legacy of resource conservation. We take seriously our commitment to improving the well-being of the environment for current and future generations of employees, Members of Congress and the millions of visitors who visit the Capitol campus annually.

