



Office of  
General Services

Department of  
Environmental  
Conservation

NYSERDA

NY Power  
Authority

# Greening New York State

## 10<sup>th</sup> PROGRESS REPORT ON STATE GREEN PROCUREMENT AND AGENCY SUSTAINABILITY FISCAL YEAR 2020–2021

Kathy Hochul, Governor | Jeanette Moy, Commissioner OGS | Basil Seggos, Commissioner DEC  
Doreen M. Harris, President and CEO NYSERDA | Justin E. Driscoll, Interim President and CEO NYPA





# Message from the Chairs

New York State's COVID-19 pandemic response taught us many lessons and underscored the increased appreciation New Yorkers have for their environment and their desire to ensure it is protected. It also gave us a glimpse into the greener future we are working hard to create here in New York—one with cleaner air and water.

During the pandemic, New Yorkers rose to meet the moment. We are especially grateful for our New York State employees who worked hard to increase the sustainability of State government while also becoming frontline workers in the State's response. Many volunteered to staff call centers, deliver supplies, or work at mass testing and vaccination sites, all while continuing to make important progress in their ongoing work of greening State operations.

As we emerge from the pandemic, New York State is accelerating efforts to lead the nation in protecting our environment. This report marks the tenth edition of the *Greening New York State* report. Over the past decade, State government has proven that operating sustainably is paramount to protecting the environment and ensuring sound fiscal management.

The FY 20–21 *Greening New York State* report highlights the impressive progress that State agencies are making toward lowering their environmental footprints. Accomplishments include a record \$300 million in spending by State agencies on green products and services; 4.4 trillion BTUs of energy-saving projects either completed or underway; adoption of four new green purchasing specifications and the tentative adoption of 21 more; and the launch of the “Train to Sustain” series, which has engaged nearly 300 staff with in-depth conversations on how to reduce emissions and costs within their agencies.

While progress has been made, there is much more work to be done. State agencies are continuing to identify and implement energy projects to meet the BuildSmart 2025 goal of 11 trillion BTUs of energy savings by 2025 and doubling down on efforts to transition the State's fleet to electric vehicles with Governor Hochul's recent commitment to an all-electric light-duty vehicle fleet by 2035.

We are proud of the work that State agencies have done to reduce the environmental footprint of State operations and look forward to continued progress in the coming years.



Jeanette Moy,  
Commissioner,  
Office of General Services



Basil Seggos, Commissioner,  
Department of  
Environmental Conservation



Doreen M. Harris,  
President and CEO,  
NYS Energy Research and  
Development Authority



Justin E. Driscoll, Interim President  
and CEO, NY Power Authority

# Table of Contents

<b>Guide to State Agency and Authority Abbreviations</b> .....	<b>2</b>
<b>Executive Summary</b> .....	<b>4</b>
Highlights from FY 20–21 .....	<b>4</b>
<b>Achieving the Promise of Sustainability</b> .....	<b>6</b>
<b>Savings and Costs</b> .....	<b>7</b>
<b>Operating Green</b> .....	<b>8</b>
Engaging the Green Team .....	<b>8</b>
Waste Reduction and Reuse .....	<b>10</b>
Recycling, Composting, and Special Waste .....	<b>12</b>
Refrigerant Management .....	<b>13</b>
Reducing Hazardous Chemical Use .....	<b>14</b>
Clean Energy .....	<b>16</b>
Sustainable Landscaping .....	<b>20</b>
Species and Habitat Protection .....	<b>22</b>
Water Conservation .....	<b>26</b>
Green Infrastructure and Stormwater .....	<b>27</b>
Sustainable Transportation .....	<b>30</b>
<b>Buying Green</b> .....	<b>33</b>
Buying Green .....	<b>33</b>
Purchasing Recycled Paper .....	<b>35</b>
Green Specifications .....	<b>37</b>
Restricting the Use of Bottled Water .....	<b>39</b>
<b>Conclusion</b> .....	<b>41</b>

Cover photos (from top right):

- **NYPA** is installing pollinator gardens at many of their facilities. This one is at the Niagara Power Vista. Photo credit: NYPA
- **ORDA** purchased hybrid groomers that reduce fuel usage by 20%. Photo credit: ORDA
- **State Parks** installed EV charging stations at Buffalo Harbor State Park. Photo credit: State Parks
- In fall 2020, **State Parks** staff installed an off-grid solar array with battery storage system at Tallman Mountain State Park to power a restroom along the Long Path trail. Restoring power to this remote facility revived picnicking along the popular trail, and serves as a model for powering other small remote facilities. Photo credit: State Parks

# Guide to State Agency and Authority Abbreviations

**Aging** – Office for the Aging

**AGM** – Agriculture and Markets

**APA** – Adirondack Park Agency

**Arts** – Council on the Arts

**BFSA** – Buffalo Fiscal Stability Authority

**BOE** – Board of Elections

**BPCA** – Battery Park City Authority

**CDTA** – Capital District Transportation Authority

**CENTRO** – Central New York Regional Transportation Authority

**CS** – Department of Civil Service

**CPB** – Central Pine Barrens Joint Planning & Policy Commission

**CUNY** – City University of New York

**DASNY** – Dormitory Authority of the State of New York

**DCJS** – Division of Criminal Justice Services

**DEC** – Department of Environmental Conservation

**DFS** – Department of Financial Services

**DHR** – Division of Human Rights

**DHSES** – Division of Homeland Security and Emergency Services

**DMNA** – Division of Military and Naval Affairs

**DMV** – Department of Motor Vehicles

**DOB** – Division of Budget

**DOCCS** – Department of Corrections and Community Supervision

**DOH** – Department of Health

**DOL** – Department of Labor

**DOS** – Department of State

**DOT** – Department of Transportation

**DPS** – Department of Public Service

**DVS** – Division of Veterans' Services

**ECFSA** – Erie County Fiscal Stability Authority

**ECMC** – Erie County Medical Center

**EFC** – Environmental Facilities Corporation

**ESD** – Empire State Development

**FCB** – Financial Control Board

**Gaming** – Gaming Commission

**GOER** – Governor's Office of Employee Relations

**HCR** – Homes and Community Renewal

**HESC** – Higher Education Services Corporation

**HRBRRD** – Hudson River-Black River Regulating District

**HRVG** – Hudson River Valley Greenway

**IG** – Office of the Inspector General

**University at Albany (SUNY)** saw continued success through their partnership with CDPHP Cycle!, with 23,058 rides taken between July 2020 and May 2021. ▼



University at Albany





NYPA

▲ Members of the GreenNY Council gathered to plant sugar maple trees, provided through a partnership between **DEC** and **NYPA's** Tree Power 2.0 program, at DEC's Five Rivers Environmental Education Center to symbolize their long-term commitment to sustainability.

**ITS** – Information Technology Services

**JC** – Justice Center

**JCOPE** – Joint Commission on Public Ethics

**LIPA** – Long Island Power Authority

**MTA** – Metropolitan Transportation Authority

**NFTA** – Niagara Frontier Transportation Authority

**NIFA** – Nassau Interim Finance Authority

**Javits Center** – New York Convention Center Operating Corporation

**NYPA** – New York Power Authority

**NYSBA** – New York State Bridge Authority

**NYSCC** – New York State Canal Corporation

**NYSERDA** – New York State Energy Research and Development Authority

**NYSIF** – New York State Insurance Fund

**OASAS** – Office of Alcoholism and Substance Abuse Services

**OCFS** – Office of Children and Family Services

**OBPA** – Ogdensburg Bridge and Port Authority

**OGS** – Office of General Services

**OMH** – Office of Mental Health

**Parks** – Office of Parks, Recreation and Historic Preservation

**OPWDD** – Office for People with Developmental Disabilities

**ORDA** – Olympic Regional Development Authority

**OTDA** – Office of Temporary Disability Assistance

**PERB** – Public Employees Relations Board

**POA** – Port of Oswego Authority

**RIOC** – Roosevelt Island Operating Corporation

**RGRTA** – Rochester-Genesee Regional Transportation Authority

**SLA** – State Liquor Authority

**SUNY** – The State University of New York

**Tax** – Department of Tax and Finance

**Thruway** – Thruway Authority

**NYSP** – New York State Police

**UNDC** – United Nations Development Corporation

**WCB** – Workers' Compensation Board

**WCHC** – Westchester County Health Corporation

# Executive Summary

In addition to the challenges posed by the COVID-19 pandemic response, New York State agencies continued to make significant progress in lowering the environmental footprint of State operations in FY 20–21. The holistic nature of the GreenNY program ensures that progress is made in a wide variety of areas.

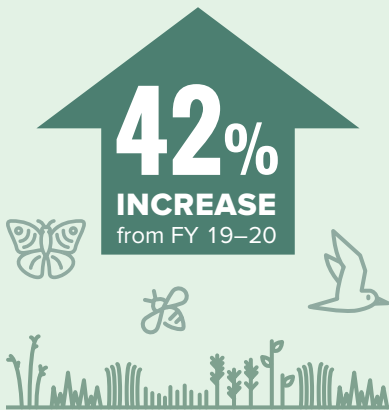
## Highlights from FY 20–21

- Staff engagement – Nearly 300 staff from various agencies participated in the “Train to Sustain” training series, which continues to host in-depth conversations on relevant lead-by-example topics to promote greater understanding and new actions to support our goals.
- Waste reduction – 68% of State agencies reported a decrease in waste generation in FY 20–21, with most reporting a decrease of 50% or more.
- Recycling and composting – State agencies reported a 94% recycling rate, the highest on record.
- Reducing hazardous chemical use – 87% of agencies that operate laboratories have put in place measures to purchase the smallest amount of substances needed for the tasks they carry out.
- Clean energy – 40% of the projects for energy savings necessary to achieve the BuildSmart 2025 goal of 11 trillion BTUs at State facilities are either completed or underway, and nearly 25% of State agencies generated on- or off-site renewable energy.
- Refrigerant management – a new purchasing specification was approved that directs State agencies to purchase equipment that uses the refrigerant that has the lowest impact on our climate.
- Sustainable transportation – More than 5% of the state’s light-duty fleet are zero-emission vehicles (ZEV).
- Water conservation – **Javits** installed cisterns to collect rainwater to irrigate rooftop vegetation.
- Green infrastructure – **EFC** has awarded \$130 million to 230 projects through its Green Innovation Grant Program (GIGP) since 2009, which funds projects that improve water quality and mitigate the impacts of climate change.
- Sustainable landscaping – 68% of State agencies are using energy-efficient vegetation design and 66% of State agencies use landscaping practices that promote the use of native species for pollinator protection.
- Species and habitat protection – **DOT** opened a new boat-washing station at the Adirondacks Welcome Center, making it easy for boaters to stop the spread of invasive species.
- Buying green – a record \$300 million in spending on green products and services, such as computers, furniture, and green cleaning products took place in FY 20–21, a 42% increase from FY 19–20.
- Green specifications – 4 new green purchasing specifications were approved and 21 specifications were tentatively approved.
- Purchasing recycled paper – 60% of dollars spent on copy paper in FY 20–21 went to purchase 100% post-consumer recycled content, processed chlorine-free paper, a 38-percentage point increase from FY 08–09.
- Reducing the purchase of bottled water – 9 agencies reported new initiatives to reduce the purchase of bottled water, saving more than \$105,000.



RECORD  
**\$300**

**MILLION SPENT  
ON GREEN PRODUCTS  
AND SERVICES, A**



STATE'S ZEV FLEET DROVE

**400,000**



**MORE MILES IN FY 20–21 THAN IN FY 19–20**

replacing miles from fossil-fuel-powered vehicles

**4** NEW GREEN  
PURCHASING  
SPECIFICATIONS  
APPROVED

**21** TENTATIVELY  
APPROVED



State agencies reported

**94%**

**RECYCLING RATE**

HIGHEST EVER  
RECORDED



COLLECTIVELY, TOP 10  
SOLAR-GENERATING AGENCIES PRODUCED  
approximately

**36,270,000**

**KWHs IN FY 20–21**

ENOUGH TO POWER MORE THAN



**5,400**



**NEW YORK HOMES**



**4.4**



**TRILLION BTUs**

OF ENERGY SAVINGS  
PROJECTS ARE  
COMPLETED  
OR UNDERWAY,  
contributing to  
BUILDSMART 2025  
GOAL OF



**11**



**TRILLION BTUs**

OF ENERGY SAVINGS  
FROM STATE FACILITIES

# Achieving the Promise of Sustainability

Increasing sustainability in State government is a win-win for both the environment and the economy. It significantly reduces pollution and waste while saving taxpayer dollars.

Key benefits:

- Acting on climate change,
- Innovating energy solutions,
- Effectively reusing and reducing materials,
- Using least-hazardous chemicals,
- Conserving natural resources, and
- improving public health.

This is why New York has consistently set an example of environmental stewardship for the rest of the nation. A series of laws, executive orders (EOs), and policies have created a strong framework to support agencies as they strive to reduce their greenhouse gas emissions and adopt sustainable practices. They include the [Climate Leadership and Community Protection Act \(CLCPA/Climate Law\)](#), [EO 4](#), [EO 166](#), [EO 18](#) (continued by Governor Kathy Hochul in [EO 6](#)), [Vision2030](#), and the “[New Efficiency: New York](#)” [whitepaper](#).

The CLCPA is among the most ambitious climate laws in the world and will decrease New York State's greenhouse gas emissions 40% by 2030 and 85% by 2050 while also achieving a carbon-neutral economy. It also includes a section directing State agencies, authorities, offices, and divisions to lower greenhouse gas emissions from operations, ensure their decisions are consistent with the attainment of the statewide greenhouse gas emissions limits, and prioritize reductions of greenhouse gas emissions and co-pollutants in disadvantaged communities.

EO 4 directs the 73 State agencies and authorities covered by the Order to incorporate sustainability into all aspects of their operations. To accomplish this, agencies are required to implement a Sustainability and Environmental Stewardship Program and assign an employee to serve as their Sustainability and Green Procurement Coordinator (“sustainability coordinator”). EO 4 also created an Interagency Committee on Sustainability and Green Procurement (“Interagency Committee”) cochaired by the Commissioners of OGS and DEC.

EO 166 calls on all affected State entities to take action to meet the State's greenhouse gas reduction goals by reducing emissions from all operations, buildings, and vehicle fleets.

EO 18 directs executive agencies to “eliminate the expenditure of State funds for the purchase of bottled water.”

[EO 88](#) required the same entities to reduce Source Energy Use Intensity (EUI) in State-owned and -managed buildings that are 25,000 square feet or larger by at least 20% by 2020 from a baseline of FY 10–11. Affected entities exceeded their goal and lowered EUI by 22% in covered buildings according to the [final report](#). Energy efficiency is now implemented through [BuildSmart 2025](#), a program that helps agencies meet the policy goal of reducing site energy use at buildings that are 5,000 square feet or larger by 11 trillion BTU by 2025 (from the baseline year of 2015).

The GreenNY Council, formally announced in 2020, is a multiagency, silo-busting working group charged with helping agencies implement the State's lead-by-example directives. The Council is cochaired by DEC, OGS, NYSERDA, and NYPA. Together, Council members have worked to leverage resources, create guidance, streamline sustainability reporting, and make it easier for agencies to achieve the State's climate and sustainability goals. Agency reporting under EO 4, EO 166, and EO 18 has been consolidated into one joint, annual [GreenNY reporting form](#) for three reporting years now. For FY 20–21, a total of 70 agencies reported under all the State's climate and sustainability directives. This summary compiles those reports. FY 19–20 and prior progress reports for EO 4 and EO 18 can be found on the [GreenNY website](#), which includes more detailed information, fact sheets, and case studies on sustainable operations and purchasing.

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**DEC planted a pollinator garden underneath the solar array at their Stamford office. ▼**



Jenna Leonardo



# Savings and Costs

Some sustainability practices, such as cutting back on office printing, bring immediate financial savings. Larger conservation and sustainability projects often require upfront costs to implement. Fortunately, over the past 12 years, the GreenNY Council has found that the vast majority of sustainability investments either save agencies money or don't increase their costs. The charts below illustrate the cost impacts of sustainability initiatives by project category to agencies based on GreenNY survey responses. Respondents selected whether certain practices saved money, resulted in no change in costs, or led to an increase in costs.

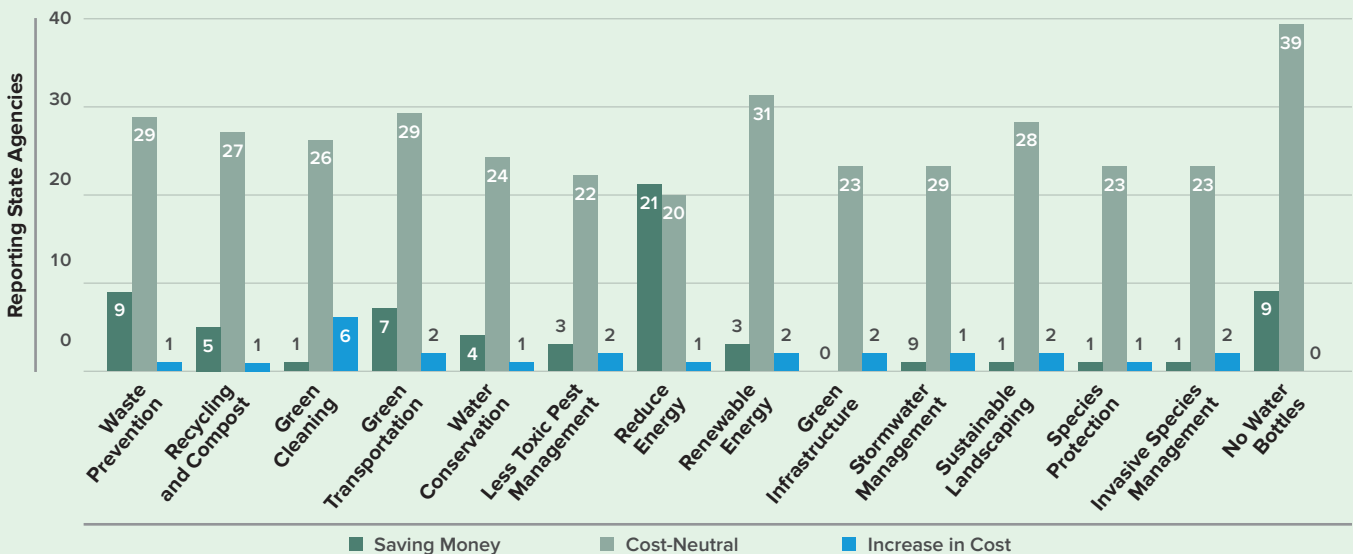
Reducing energy use was the most common strategy for saving money, with 30% of agencies reporting a reduction in costs. Eliminating the purchase of bottled water and reducing waste were also effective cost-saving measures, with 13% of agencies recording savings for FY 20–21.

Over the past 12 years, the GreenNY Council has found that the vast majority of sustainability investments either save agencies money or don't change their costs.

Many agencies achieved financial savings through their sustainability initiatives in FY 20–21:

- **SUNY Downstate** is replacing lighting fixtures with LEDs across the School and Health Science Education Building, with savings estimated at \$8 million over the LED bulbs' 10-year lifespan.
- **NYSERDA** saved \$1,800 in FY 20–21 on trash bag purchases by eliminating individual trash and recycling bins and establishing a communal waste and recycling system throughout the Albany office.
- **SUNY System Administration** saved \$2,000 in FY 20–21 by switching to Confidata's free service for processing paper, cardboard, and confidential data.
- **NYSDOL** generated revenue by auctioning off unused office equipment.
- **OMH** has implemented an internal surplus program to store and redistribute extra furniture and office equipment, saving money on purchasing replacement materials and equipment.
- **MTA** is implementing two on-site solar projects to supply energy to the grid and generate revenue.
- **SUNY Morrisville** saved \$13,000 on energy costs during FY 20–21 from lighting upgrades, representing total savings of \$37,000 since the project was completed in 2019.
- **Queens College** has rolled out additional energy cost reduction strategies, such as participation in Daylight Hour events and Demand Response events.

AGENCIES REPORT THE MAJORITY OF SUSTAINABILITY ACTIONS SAVE MONEY OR ARE COST-NEUTRAL ▼



# Operating Green

## Engaging the Green Team

An important component of sustainability is breaking down silos. For State agencies, this means developing a sustainability team that bridges multiple disciplines, divisions, and regions. To support dedicated sustainability coordinators and staff, the GreenNY Council recommends incorporating members from facilities, finance, fleet management, and procurement, and an executive sponsor and a tenant representative, if applicable. Regular team meetings foster interdepartmental conversations and collaborations to identify needs and implement projects. This core group also leads efforts to spread sustainability to all corners of the agency. Making the connection between executives and operational staff (matching the “suits” with the “boots”) on sustainability issues increases buy-in and assists in identifying opportunities for integrating sustainability in agency operations and culture.

The GreenNY Council regularly provides resources and opportunities for sustainability teams to increase engagement, including monthly [lunchtime-learning webinars](#), the “Train to Sustain” training series, a monthly newsletter, its SharePoint Action Agenda Wiki, and more. Additionally, the Council held its annual GreenNY Forum at NYPA’s new [NY Energy Zone](#), with nearly 100 virtual and in-person attendees. The event featured sessions on best practices and innovative solutions led by subject matter experts and agency sustainability champions.

In FY 20–21, 44 State entities (63% of the total) reported having a part-time sustainability coordinator, with an additional 10 entities having a dedicated full-time staff member. Those 10 agencies are CUNY, DEC, DFS, DHR, DMNA, MTA, Javits, NYPA, State Parks, and ORDA. The full list of sustainability coordinators can be found on the [GreenNY Website](#). In FY 20–21, 35 agencies reported having a full sustainability team, an increase from 32 in FY 19–20. Furthermore, 12 agencies have developed sustainability plans while another 6 report having plans currently in development.

**The GreenNY Council’s annual GreenNY Forum took place at NYPA’s NY Energy Zone and featured more than 100 virtual and in-person attendees learning best practices and new innovative solutions for their agencies.**

**CENTRO’s green team successfully planned and participated in the Earth Day Clean Up of the community, cleaning 3.5 miles of sidewalk next to their Syracuse Facility and Syracuse Transfer Hub. ▼**



J.B. McCampbell



**NYPA's SustainAble U** program provided interactive training on climate change and climate solutions to 2,400 employees, which increased climate literacy and support for climate solutions. ▼



Examples of successfully engaging the green team in FY 20–21:

- **BPCA** conducted roundtables, pop-up events, and surveys to garner input from their staff and the public, representing 500 people total, in the development of its sustainability plan. More than one-third of the plan's sub-actions were derived directly from this engagement.
- **CENTRO** created a sustainability page on its intranet to showcase green tips and sustainability projects, such as an Earth Day Clean Up volunteer event to clean 3.5 miles of sidewalk surrounding CENTRO's Syracuse facilities.
- **DFS** is developing an intranet page titled "Greening the DFS: Documenting the Department of Financial Services Sustainability Efforts" to provide helpful resources and promote sustainable actions employees can take.
- **ITS** forged a partnership between its sustainability/facilities team and in-house technical team to develop an automated process for managing and tracking e-equipment recycling.
- **NYPA** has a Sustainability Advisory Council made up of heads of more than 30 departments, who provide guidance and support in development of Sustainability plans and programs.
- **SUNY Farmingdale** is planning to hire a full-time sustainability coordinator to lead the campus's sustainability planning efforts.

	Percentage of Agencies	
	FY19–20	FY20–21
Hold meetings at least twice a year with sustainability team and the head of agency	20%	21%
Hold regular meetings with sustainability team and agency's deputies for facility management and finance	24%	29%
Use resources on the GreenNY SharePoint site or the GreenNY public website	75%	67%
Participate in webinars and activities offered by the GreenNY team	80%	80%
Participate in the annual GreenNY Forum	48%	56%
Provide outward-facing sustainability education and communications (e.g., website and newsletter content)	32%	30%
Convene their sustainability team to discuss the reporting process on an annual basis	38%	47%



▲ **SUNY Oswego** interns with the Office of Sustainability tapped maple trees on campus and served the syrup in the dining hall to highlight local food options.

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## Waste Reduction and Reuse

State agencies are leading by example in reducing waste and incorporating reuse and repair into everyday operations. The GreenNY program has played a significant role in how State agencies generate and handle waste through the training and support it offers agencies seeking to implement more ambitious waste reduction initiatives. Agencies reported generating 1,500,885 tons of waste in FY 20–21, 85% of which was clean construction and demolition (C&D) debris that was recycled (see “Recycling, Composting, and Special Waste”). This is an increase in waste generation (recycling and waste disposed) from the previous year and is attributed to improved tracking and reporting of recycling by DOT.

Sixty-eight percent of reporting agencies indicated a decrease in waste generation in FY 20–21 compared to the previous year, and most of those agencies reported a decrease of more than 50%. A primary reason cited for the decrease is employees working from home due to the pandemic. The pandemic has also reduced the ability of State agencies to perform waste audits, a primary tool to assess the status of recycling and waste reduction programs. This has made it more challenging for some State agencies to assess how their programs are doing. It is anticipated that waste audits will resume in the coming FY.

State agencies took action to reduce waste in numerous ways in FY 20–21:

- Implementing procurement policies designed to prevent waste, such as ordering items with less plastic or polystyrene packaging;
- Employing practices to reduce wasted food at facilities; and
- Increasing the use of electronic rather than paper communication within and outside of agencies as a result of the pandemic.

State agencies are leveraging a variety of waste prevention programs, including the **OGS** State Surplus Property Program, and developing their own agency- and facility-specific programs to reduce waste and reuse materials wherever possible.

**State agencies reported generating 1,500,885 tons of waste in FY 20–21, 85% of which was clean construction and demolition (C&D) debris that was recycled.**

A few examples of successful waste prevention initiatives in FY 20–21:

- **OMH** utilizes a nutritional menu database that forecasts food ordering needs, which results in a reduction of wasted food.
- **Javits** developed a new waste-diversion policy with aggressive targets and assessed measures to move to zero-waste practices.
- **State Parks’** regional offices have installed touchless paper towel and soap dispensers to reduce excess waste.
- **MTA** has begun tracking reusable packaging returned to vendors as a diversion effort and reports 65 cement pallets and 64 cable spools returned.

In addition to reducing waste, agencies have established creative reuse projects that both save money and prevent waste, including establishing reuse programs in their offices and facilities. Half of agencies report having an office supply reuse program in place at all (32%) or a majority (22%) of their facilities.



Of reporting State agencies:

**97%**

**REDUCE PAPER WASTE**

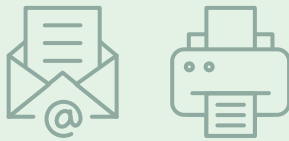
by providing

**DOCUMENTS AND  
INFORMATION ELECTRONICALLY**

▼ ALL —or— A MAJORITY ▼

**26% | 63%**

of the time



Of reporting State agencies:

**97%**

**SET PRINTER  
DEFAULT SETTINGS TO**

**DOUBLE-SIDED PRINTING**

(duplex printing)

▼ ALL —or— A MAJORITY ▼

**44% | 41%**

of the time



Of reporting State agencies:

**68%**

practice behavior change techniques such as  
**IMPLEMENTING INITIATIVES TO**  
shift individual attitudes to

**REDUCE WASTE**

▼ AT ALL —or— A MAJORITY ▼

**27% | 16%**

of their facilities

**BPCA** partnered with their cleaning supply vendor to purchase cleaning products in a drum-sized container, which the vendor takes back when empty and refills with the product. This ensures a closed-loop system for their cleaning supplies and reduces container usage. ▼



BPCA

## Recycling, Composting, and Special Waste

Reporting for FY 20–21 continues to document a robust and encouraging trend of high recycling rates by State agencies. In the last two reporting years, more than 90% of the solid waste generated by agencies was recycled or composted, compared to a 50% rate of recycling in FY 08–09. FY 20–21 saw an overall State agency recycling rate of 94%, the highest reported to date. Across all reporting agencies, 1,500,885 tons of waste were recycled or composted in FY 20–21, including 1,311,824.8 tons of C&D debris.

Due to the pandemic, most State agencies with primarily office space saw a reduction of waste generation and recycling, as waste generation shifted to home office settings. Two office-related waste streams—single stream recycling and food scraps composting—were reduced compared to the previous fiscal year, down 62% and 76% respectively.

### Ninety-four percent of all waste generated by State agencies in FY 20–21 was recycled or composted.

Diverting organic waste and food scraps that cannot be donated to recycling or anaerobic digestion reduces methane generation in landfills and sequesters significant amounts of elemental carbon, all while producing a beneficial amendment that improves soil health and reduces the need for energy-intensive fertilizers and hazardous pesticides. State agencies composted a total of 8,588 tons, including 5,579 tons of food scraps, in FY 20–21. Many SUNY campuses compost yard trimmings and food scraps and use the finished compost on campus grounds.

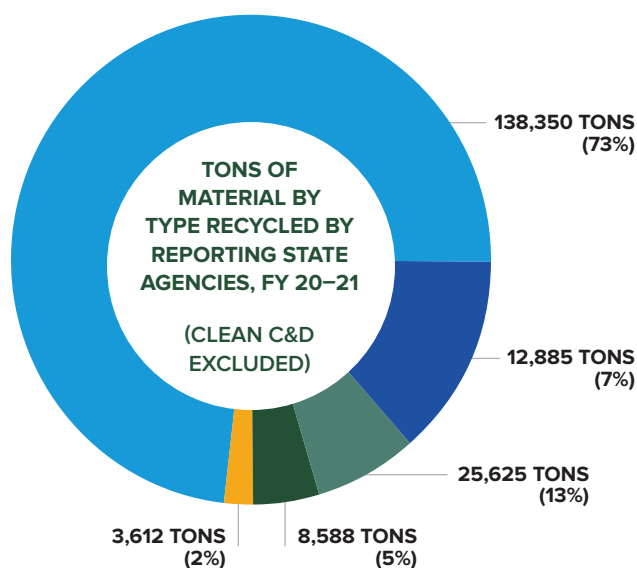
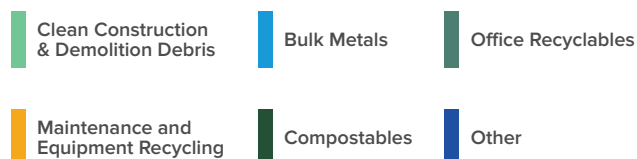
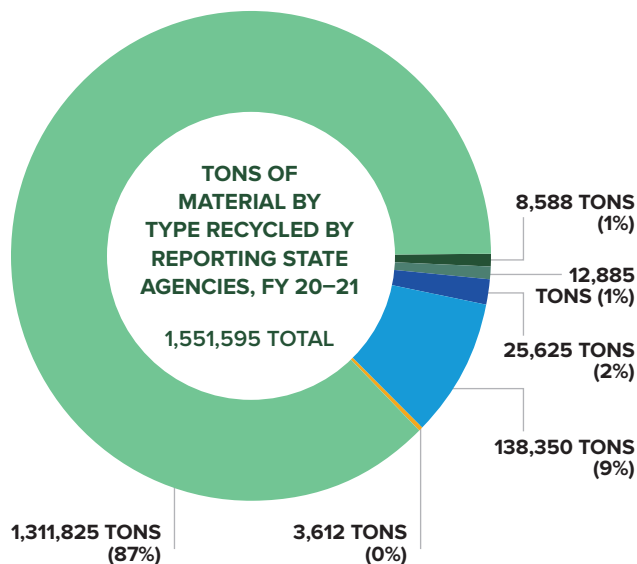
A few examples of successful recycling and composting initiatives in FY 20–21:

- **CENTRO** updated recycling signage with the assistance of the county's recycling program, OCRRA.
- **SUNY Geneseo** composts yard trimmings and food scraps and then screens the finished material for use on campus.



#### BREAKDOWNS OF THE TOTAL QUANTITY OF MATERIALS RECYCLED BY AGENCIES, ON AVERAGE, FY 20–21

Because waste types are split out by weight, “office recyclables” (paper, bottles, and cans) amount to significantly less than non-office recyclables, which are much heavier. C&D material includes concrete, asphalt, brick, and clean wood that come from building construction, renovation, and demolition, as well as highway construction and maintenance. ▼



## Refrigerant Management

During FY 20–21, the GreenNY Council’s Refrigerant Management Working Group continued to meet and learn new strategies to inventory and reduce refrigerant emissions across state operations. In addition, 33 out of 70 agencies reported that they have unsealed equipment that uses refrigerants, allowing the Council to better target its outreach to agencies that have the potential to have refrigerant emissions.

Refrigerants are also a focus of new DEC regulations as well as the New York State plan for addressing statewide greenhouse gas emissions under the Climate Law. DEC regulations under 6 NYCRR Part 494 went into effect in 2021 regarding specific sources of refrigerant emissions, including food refrigeration equipment and HVAC chillers. The Climate Action Council’s *2021 Draft Scoping Plan* will include actions to expand DEC’s Part 494 regulation as well as actions by other State entities to address these emissions.

The GreenNY Council also finalized a new green-purchasing specification for equipment that contains refrigerants. This specification covers sealed equipment that contains refrigerants (such as window-mounted air conditioning units, refrigerators, and coolers) and unsealed equipment that uses refrigerants (such as HVAC systems, chillers, or certain heat pumps). It requires agencies to evaluate options for new equipment using refrigerants to find one with the lowest global warming potential (GWP) that will meet their operational needs, and encourages them to purchase it. In addition, it also encourages agencies to purchase equipment that has built-in leak detection systems and requires them to take steps to mitigate leaks within existing equipment. This new specification will ensure that agencies are both taking action to lower their refrigerant emissions now and eventually eliminating the usage of high-GWP refrigerants from their operations.

Frank Faber



▲ DEC’s Region 8 Office purchased a new refrigerator that uses a low-GWP refrigerant, in this case, R-6001 (which has a GWP of 5).

A new green purchasing specification for refrigerant-containing equipment was finalized. ▼





## Reducing Hazardous Chemical Use

### PEST MANAGEMENT

In FY 20–21, agencies reported that they continued successfully using both Integrated Pest Management (IPM) and Integrated Vegetation Management (IVM) to reduce their use of hazardous substances. IPM practices focus on indoor settings and include monitoring for pests, using enhanced sanitation, and implementing structural controls, along with using the least hazardous pesticide when one is necessary. IVM focuses on vegetation management in outdoor settings and reduces the need for pesticides, which promotes ecosystem health, increases biodiversity, and helps control invasive species. Agencies reported that they continued to utilize the GreenNY specifications for both [IPM for indoor spaces](#) and for [IPM and IVM](#) for outdoor spaces.

**“With integrated Pest Management, we have seen the same duration of time for insecticides to result in the same performance as stronger chemicals. We have not needed to vacate any spaces to properly provide pest management, resulting in no loss of work performance.”**

– **SUNY Maritime**

Examples of IPM and IVM at State facilities in FY 20–21:

- **UNDC** is using Integrated Pest Management, which has enabled them to eliminate the use of toxic pesticides at their facilities.
- **NYSERDA** is working with their landscaping vendor to educate them on non-toxic integrated Vegetation Management techniques, particularly to control poison ivy.

**State Parks** uses wood chips that are created from brush on site to control weeds without chemicals around their grounds. ▼



Brian Schweizer

Of reporting State agencies:



**NOW IMPLEMENT IPM**

at all or most indoor facilities



**USE NON-CHEMICAL**

means of

**PEST MANAGEMENT**

for turf and ornamental plantings at all or most facilities



**PERFORM**

**OUTDOOR IPM/IVM**

at all or most facilities



**AVOID PURCHASING**

nursery stock that is treated with



**INSECTICIDES**

at all or most facilities



continued to use green cleaning practices that

**MINIMIZE THE AMOUNT OF**

**CHEMICAL CLEANING PRODUCTS**

used at all or a majority of their facilities



reported using general purpose

**GREEN CLEANERS**

at all or a majority facilities

## GREEN CLEANING

Green cleaning practices, which include using less-hazardous chemicals, reducing a facility's inventory of cleaning products, avoiding the use of unnecessary volumes of cleaners by using automated dispensers, and implementing methods that don't require chemicals, have been utilized by numerous state entities since the beginning of GreenNY reporting.

Maintaining a clean work environment or public venue while also eliminating the use of hazardous chemicals is a balancing act that requires staff to consider several factors. Due to COVID-19, achieving this balance has been especially challenging. While the need for enhanced sanitation led to an increase in the use of disinfectants, there also were successes where green cleaning practices have been maintained or newly adopted. A few examples of agencies newly adopting green cleaning measures in FY 20–21:

**Researchers have been more open to purchasing chemicals in smaller quantities when they are given accurate information about the life cycle of hazardous chemicals.**

- **Borough of Manhattan Community College (CUNY)** has partially replaced the use of chemical disinfectants by switching to UVC disinfection, which uses radiation from a special type of lamp to disinfect the air and surfaces.
- **Javits** sourced many disinfectants from the GreenNY list of products that meet EO 4 specifications and are still effective against the virus that causes COVID-19.
- **Port of Oswego** reported that they switched to green cleaning products and noted that the new products are cleaning as well their previous products did.

**Lehman College (CUNY)** strongly encourages their researchers to purchase the smallest amount of chemicals that they need to carry out their work. ▼



Ilona Linins

**Borough of Manhattan Community College (CUNY)** reduced the amount of chemical disinfectants it needs by using UVC disinfection devices. ▼



Michael Spath

To assist agencies in ensuring they were using the safest choices for disinfectants, the GreenNY team developed a list of disinfectants that meet [GreenNY specification](#) and are effective against the virus that causes COVID-19. The list was regularly updated and shared with sustainability coordinators to help them find safe and effective disinfectants. In addition, agencies continued to utilize the [Green Cleaning Program website](#) and the [GreenNY Tip Sheet](#) to learn how to implement green cleaning practices and purchase approved green cleaning products.

The GreenNY Council also began working with agencies to reduce the amount of hazardous substances that they have in their laboratories by using better chemical management. While only 15 agencies reported that they operate labs, 87% of these entities indicated that they have reduced the purchase and use of hazardous chemicals in their labs. For example, **Lehman College (CUNY)** reported that they strongly encourage researchers to purchase chemicals in the smallest quantities, stressing the fact that disposal costs must be considered when purchasing chemicals.

## Clean Energy

### ENERGY EFFICIENCY

BuildSmart 2025 was launched in FY 20–21 as part of the State's efforts to reduce fossil fuel use and become more energy efficient. The program is a continuation of the original BuildSmart NY program, with targets aligned to new State energy efficiency targets, and an expanded scope of buildings and State agencies required to comply with the targets. In conjunction with existing GreenNY efforts, BuildSmart 2025 will help to ensure State government reaches its goal of achieving 11 trillion BTUs of energy savings from 2015–2025 through its projects.

The New York Energy Manager (NYEM) platform is the system of record for BuildSmart 2025. NYEM is being used to track agency progress toward its energy goals and will also facilitate the benchmarking of agency buildings. In addition to NYEM, **NYPA** offers a Utility Bill Integration (UBI) product, which is available to State agencies at no cost to them. The UBI product will electronically link agency utility bills to NYEM to eliminate manual entry and assure data integrity.

In addition, State agencies have started the next phase of energy audits and master plans and are beginning to identify additional energy savings opportunities at new sites. They are also creating new roadmaps for reaching their energy goals.

**Through March 2021, NYPA has enrolled more than 50 state agencies in the NYEM platform, allowing State agencies to upload, store, and monitor their energy use within one platform.**

Highlights from energy efficiency projects initiated, in-progress, or completed in FY 20–21:

- **Tax** completed an LED lighting retrofit of 1,240 light fixtures in their leased Brooklyn office space in which they have a negotiated “Improvement Allowance” for alterations with the help of OGS. The project is expected to garner over \$30,000 in utility rebates and \$35,000 in cost savings per year, with a less than 5-year payback.
- **SUNY Downstate Health Science Center** has been continuously working to replace all bulbs throughout the building with high-efficiency, 10-year LED bulbs. The estimated savings over the 10-year life span of the bulbs is estimated at \$8 million.
- **DOL** is including the installation of LED lighting in all new leases.
- **OGS** has awarded a contract for the design and construction of a Solar PV array project on the State-owned lands of the former Oriskany Airport in Oneida County. The project will produce up to 73,000 kW of green, renewable energy, which is enough to supply about one-half of the electricity needs of the Empire State Plaza.

Other clean energy projects, include **NYPA's** efforts to implement energy efficiency and electrification measures across its all sites, such as LED lighting, purchase of electric maintenance tools (e.g., lawn mowers, snow and leaf blowers), and contracting for rooftop solar.

**MTA's Long Island Railroad's newly constructed Locomotive Repair Shop in Morris Park Yard features translucent wall panels and sunlight to maximize natural light in the shop area. Additionally, a daylight harvesting system includes the use of photocell sensors inside the building to automatically reduce the use of electrical lighting, as weather permits. ▼**



MTA



As of March 2021:

 **4.4 trillion** 

### BTUs OF ENERGY SAVINGS PROJECTS

are either underway or completed, which represents

**40% OF THE 11 TRILLION BTU GOAL**

 **~25%**   
of State agencies generate

### ON- OR OFF-SITE RENEWABLE ENERGY

 **~60%**   
report a

### REDUCTION OR NO CHANGE IN COSTS

**DUE TO ENERGY USE  
REDUCTION EFFORTS**

in buildings or facilities

 **48%**   
report a

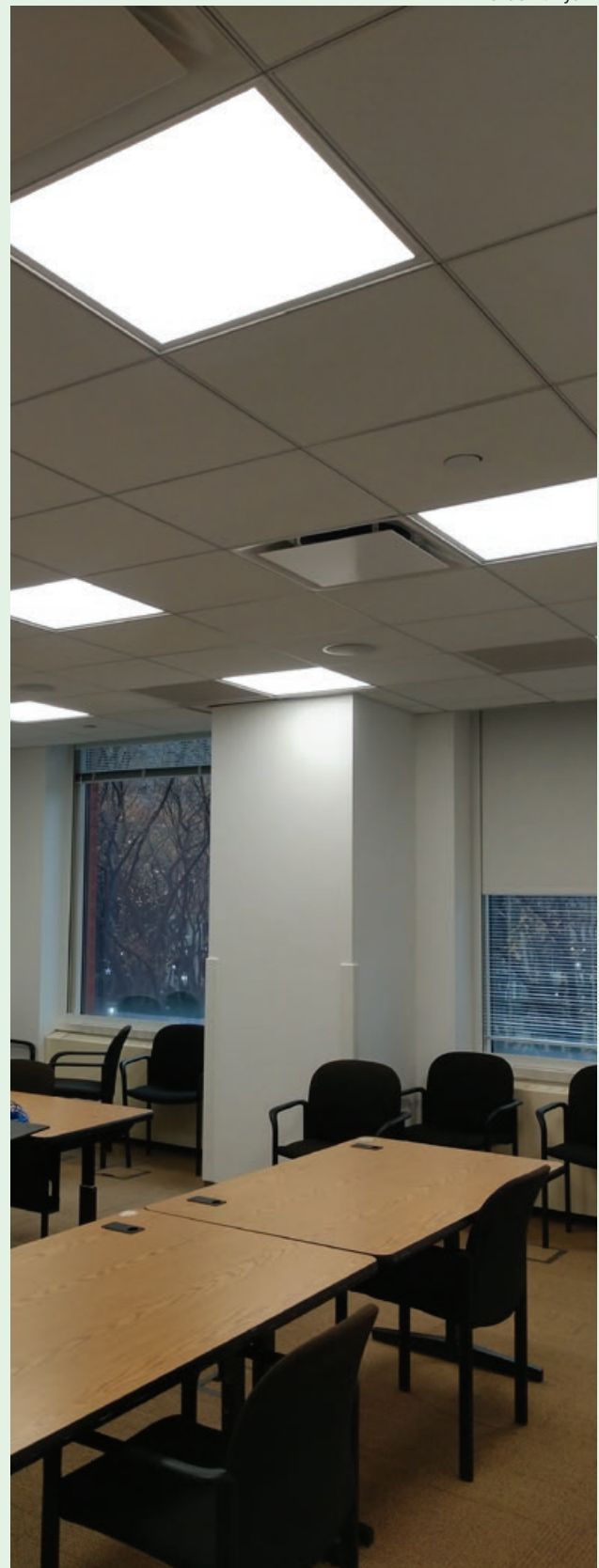
### REDUCTION OR NO CHANGE IN COSTS

**DUE TO RENEWABLE  
ENERGY GENERATION OR  
PURCHASING EFFORTS**

 **10%**   
of agencies use

**GROUND SOURCE OR  
AIR SOURCE HEAT PUMPS  
FOR HEATING OR HOT WATER**

at some facilities



▲ Tax completed an LED lighting retrofit of 1,240 light fixtures at their leased Brooklyn office space that is expected to save \$35,000 a year in costs.

## RENEWABLE ENERGY

Even with the challenges presented by the COVID-19 pandemic, State agencies continue to expand their portfolio of renewable energy projects with new and innovative projects announced across the state in FY 20–21. Renewable energy is a cornerstone of the State's efforts to decarbonize, and resources provided by **NYSERDA**, **NYPA**, and **OGS**, such as centralized contracts for solar power purchase agreements and community solar, coupled with technical assistance, have made it easier for agencies to implement these projects.

New solar projects, including megawatt-sized solar arrays, are being announced routinely. Solar Power Purchase Agreements came online at **ORDA** and **State Parks** in FY 20–21. Additional projects will come online in FY 21–22 at **Javits** (1.7 mW), **OMH** (2 mW), and **State Parks** (3 mW).

**Nearly 25% of State agencies generate on- or off-site renewable energy.**

In addition, Governor Hochul announced the selection of two new transmission projects to help bring more renewable energy to high load areas in New York City and reduce New York's dependence on fossil fuels.

Clean Path New York (CPNY) will bring renewable power from upstate to downstate New York, and Champlain Hudson Power Express (CHPE) will bring clean hydro power from Quebec to New York City. The CPNY and CHPE, in conjunction with offshore wind projects, will give State agencies additional opportunities to purchase green power.

**NYPA** continues to play a leadership role in upgrading existing and building new transmission infrastructure to integrate more renewable energy into the grid. NYPA is leading this effort by rebuilding nearly 300 miles of transmission lines with its Smart Path, Smart Path Connect, and Central East Energy Connect (CEEC) transmission projects. NYPA is collaborating with National Grid on the SmartPath Connect Project and with LS Power Grid NY on the CEEC. In addition, NYPA continues to develop public private collaborations with the Clean Path NY project as well as other emerging New York transmission solutions.

State agencies also continued working with utilities to find innovative solutions to overcoming issues related to interconnecting renewable energy projects to the grid, which will eventually make it even easier for State agencies to implement more renewable energy projects.

Highlights from renewable energy projects initiated, in-progress, or completed in FY 20–21:

- **SUNY Morrisville** constructed an 85 kW solar array. Its annual production is intended to cover most of the yearly electric consumption in the new, high-efficiency Agricultural and Clean Energy Technology Center (ACET) building.
- **OMH** is constructing a 2 mW ground-mounted solar PV system and storage project on a brown-field site that was previously used as a septic drain field and repurposed for this project. Preliminary calculations indicate savings of \$70,000 over the lifetime of the system.
- **JC** is in the process of renewing a lease for its Delmar office and exploring the feasibility of roof-mounted solar panels.
- **DEC** installed an off-grid 8 kWh solar PV system with battery back-up on the caretaker's cabin of the Narrow Island Campground in the middle of Lake George, eliminating the need to run a new power line to the island and ensuring a consistent power supply.
- **DMNA** worked with **NYPA** using **OGS's** Power Purchase Agreement (PPA) contract to perform site analysis at two locations: Camp Smith and Ithaca. Based on the analysis, they executed an agreement to pursue an RFP at both locations.
- **DOCCS** entered into a power purchase agreement that will lead to the installation of solar arrays at 5 facilities totaling 30.98 mW of capacity.



**DOCCS** signed a solar power purchasing agreement for 30.98 mWs of solar capacity, which is leading to the installation of 5 solar arrays, including this one at Wende Correctional Facility. ▼



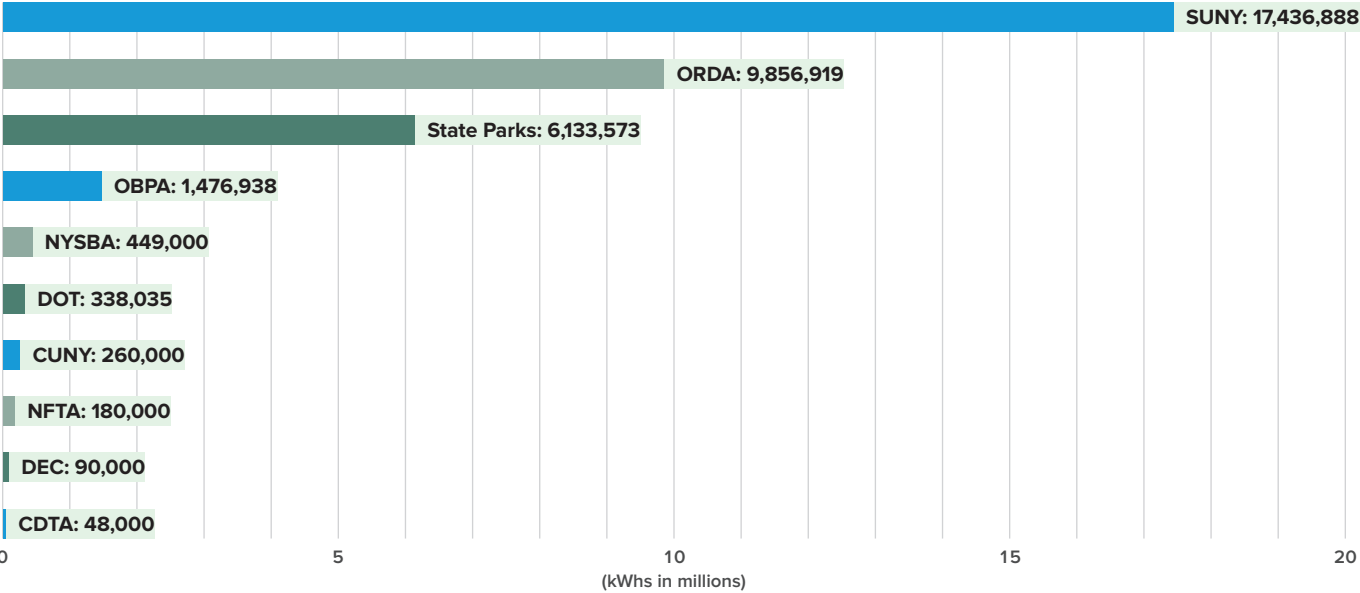
Ameresco





▲ **DEC** installed an 8 kW off-grid solar system at the Narrow Island Campground caretaker's cabin in Lake George. This project powers the facility with clean renewable energy and improves power resiliency.

**TOP 10 STATE AGENCIES BY SOLAR ENERGY GENERATION,  
FY 20–21 (IN kWhs) ▼**





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## Sustainable Landscaping

Sustainable landscapes can be a wide range of open spaces, from large forests and wetlands to land surrounding a building complex and even the green space next to a downspout. A sustainable landscape is a space that is designed, renovated, or maintained to intentionally encourage natural systems to work in tandem with the built environment for the benefit of wildlife and humans.

In addition to benefiting the environment, sustainable landscapes can also provide cost-savings by requiring less water, chemical fertilizer and pesticide inputs, and maintenance.

A few areas where State agencies are taking action to incorporate more sustainable landscaping:

### MINDFUL MOWING

Timed mowing, whether to maintain turf, control invasive species, use less fossil fuels, or protect pollinators after a new planting, is a technique used in both large-scale and smaller scale sustainable landscape management. Agencies that improved their mowing practices:

- **SUNY Potsdam** implemented a three-acre low-mow zone to support birdlife.
- **State Parks'** Long Island Region reduced its mowing acreage and subsequent fuel use by focusing on maintaining areas around buildings.
- **Port of Oswego** reduced its mowing frequency from seven to nine days.
- **NYSERDA** mows at higher grass height during times of high heat to prevent dieback.

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**DEC** began rolling out electric lawn maintenance equipment at its campgrounds to reduce air pollutants and greenhouse gases while also making the campgrounds quieter for all. ▼



Jenna Leonardo

### NATIVE PLANTS

Native plants are a primary component of a healthy ecosystem and are essential to pollinator protection. Many State agencies, such as **DEC**, **OPRHP**, **NYPA**, and **DOT**, use land management techniques that protect, develop, and monitor native plant communities to enhance biodiversity and improve the overall quality of habitat for wildlife.

In the built environment, native plants serve the same purpose, albeit on a smaller scale. **Bronx Community College (CUNY)**, **SUNY Morrisville**, and **Javits** promote the beauty of native plants for public awareness while also enhancing habitat in the landscape.

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As part of **State Parks'** Plant Material Program (PMP), Brigitte Wierzbicki, Plant Material Program Coordinator, is starting seeds of eco-regional native plants. The PMP was started at Sonnenberg Gardens and Mansion State Historic Park in 2016 and collects and propagates seeds for environmental stewardship projects across six State Parks regions of the state, from the Finger Lakes Region and eastward to the Taconic Region. This ensures that State Parks will have the right native plants for the sites where they are planting them. ▼



Samantha Calus





▲ **DOT** reduced mowing in the infield near exit 8 of I-90. Milkweed plants, favorites of the monarch caterpillar, can be seen growing.

Bronx Community College Staff



▲ **Bronx Community College (CUNY)** has worked to increase the amount of native plants that they have on campus, in addition to allowing natural grass to predominate the landscape for a more organic approach.

Bronx Community College Staff



**USE SUSTAINABLE LANDSCAPING PRACTICES THAT PRESERVE OR ENRICH SOIL**



**WATER CONSERVATION WHEN DETERMINING IRRIGATION PRACTICES**

and/or within the creation of management/landscaping plans



**PRESERVE, PROTECT, OR PROMOTE THE USE OF NATIVE OR NON-INVASIVE VEGETATION**

to support native wildlife and pollinators and reduce water and energy use, such as low- or no-mow policies



**ENERGY-EFFICIENT LANDSCAPE DESIGN**

(e.g., the placement and selection of shade trees and wind breaks, the use of vegetation and reflective materials to reduce heat islands, etc.)



## Species and Habitat Protection

### INVASIVE SPECIES

Invasive species are non-native organisms that can cause harm to the environment, the economy, and human health. A lack of predators, the ability to adapt to various habitat conditions, and faster reproductive rates allow certain non-native species to expand their populations quickly. Invasive species can outcompete native ones for resources, disrupt food webs, spread disease among humans and livestock, damage crops, and negatively impact recreation and associated income. They can be introduced intentionally (e.g., when invasive plants are used for landscaping) or unintentionally (e.g., when wood borers hitch a ride in firewood). As a hub for international trade and travel, New York has one of the highest rates of non-native introductions in the country, but State agencies play a significant role in preventing the spread of invasive species by actively surveying their land, identifying infestations early, and restoring native ecosystems.

**A full boat wash and inspection takes less than 15 minutes and greatly reduces the chance of introducing aquatic invasive species into pristine waterways.**

State Parks



▲ State Parks' NYC Field Crew removing an autumn olive stump

- Thirteen agencies engaged in invasive species survey and removal activities during FY 20–21. **SUNY Campuses—Morrisville, Canton, Binghamton, Brockport, Oneonta, Oswego, Fredonia, Geneseo, Farmingdale, and Potsdam**—have incorporated some form of invasive species management into their curriculums and into the care of their facilities. Faculty and students alike have been involved in survey and planning activities, as well as implementing management plans and conducting research.
- **State Parks** has several field teams across the state that actively manage and look for invasive species. These teams conduct surveys for a range of plant and animal species; monitor threatened, rare and endangered species; and report and remove invasive species on their lands.
- **DOT** oversaw the design and installation of a new state-of-the-art boat wash station at the Adirondacks Welcome Center. The facility's prominent location off the I-87 offers convenience along a highly traveled route for boaters heading to Adirondack waterways. A full boat wash and inspection takes less than 15 minutes and greatly reduces the chance of introducing aquatic invasive species into pristine waterways.



10



SUNY CAMPUSES

MANAGE INVASIVE SPECIES

on campus grounds

**DOT** partnered with **DEC** to install a new boat wash station at the Adirondacks Welcome Center. ▼




DOT Landscape Architecture Bureau





▲ State Parks has field crews that survey for invasive species.





▲ **DEC** Forest Rangers assist with a prescribed burn in the Albany Pine Bush to enhance habitat for the Karner blue butterfly.



## ENDANGERED SPECIES

The rarest animal species in New York are most frequently at risk due to habitat loss. Development, changing land use, and climate change effects, such as increased storm intensity and sea level rise, all can reduce the amount and quality of important habitats. In addition to federal law, New York's endangered species law and regulations afford protection to occupied habitats that support our endangered and threatened species. Through efforts to enforce these rules and through active management, lake sturgeon are once again spawning in New York State, some species of bats are beginning to stabilize from the effects of white nose syndrome (WNS), and management for Karner blue butterflies continues to improve the status of this federally-listed species. New York's endangered species efforts focus on the most sensitive elements in the system, and work to find and correct fish or wildlife problems before certain species are lost forever.

## New York's endangered species conservation efforts focus on safeguarding sensitive species and their habitats before they are lost forever.

Examples of State agencies that worked to improve the habitats of our rarest species in FY 20–21:

- **DEC** Forest Rangers, along with staff from the Albany Pine Bush Commission and volunteer firefighters, conducted two prescribed burns at the Albany Pine Bush, encompassing a total of 28 acres. These burns were conducted in high-quality, inland pitch-pine scrub-oak barrens near the Albany Pine Bush Discovery Center. These burns are conducted to maintain this globally rare, fire-dependent ecosystem and improve habitat for a number of rare, threatened, and endangered species, including the Karner blue butterfly.

- **DEC** worked closely with regulatory partners at the U.S. Geological Survey (USGS), U.S. Fish and Wildlife Service, and U.S. Environmental Protection Agency, as well as the Monroe County Department of Health, to improve water quality and restore habitat in the Lower Genesee River as part of the Lake Sturgeon Partnership. In spring 2021, a field crew from the USGS's Tunison Laboratory of Aquatic Science netted a 61-inch, nearly 70-pound female lake sturgeon in the Lower Genesee River. This event marked the first verification of spawning lake sturgeon since the DEC began stocking lake sturgeon into the river in 2003, as part of the State's efforts to support the species' recovery. Outreach assistance was provided by the Seneca Park Zoo and New York Sea Grant to help educate the public about lake sturgeon and the Genesee River.
- **DOH, DEC**, and partnering researchers from the National Wildlife Health Center in Madison, Wisconsin, along with experts at top universities across the country, worked to better understand WNS in bats and develop actions that can increase the survivorship of remaining bats. In the first few years after the emergence of WNS in 2008, the populations of most cave-hibernating bats declined by as much as 99%. This resulted in the federal listing of the previously abundant northern long-eared bat as Threatened in 2015. There is currently no treatment for bats suffering from WNS. This collaborative effort helped identify that reducing disturbances at hibernation sites during the winter can help the remaining animals survive. Collaborating with Lyme Timber, DEC was also able to complete the gating of one of the most important hibernacula (winter resting grounds) in the state this past year.

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**DEC and partners are celebrating the return of spawning sturgeon in the Genesee River after efforts to stock them began in 2003. ▼**



USGS, Marc Chalupnicki

## Water Conservation

State agencies continued to promote water conservation and reduce waste in FY 20–21 despite challenging circumstances. Every agency has special circumstances affecting its water supply and demands. The appropriate plan for one agency might differ from that of another. Education and information are essential components of any conservation plan. Water users must receive information about the reasons for and benefits and methods of conservation.

State agencies that meter their water usage gather data that can be used to target problems and find solutions. Some facilities include plenty of green space. The agencies that manage these facilities may benefit from efficient landscape design, lower water demand plantings, use of greywater for irrigation, and sensible use of automated sprinklers. Other agencies may have older facilities, and a plan which includes fixture replacement and leak detection would be more helpful.



of responding agencies report that improved indoor

### WATER CONSERVATION

practices led to a

**REDUCTION OR NO CHANGE IN COSTS**

A few examples of water conservation efforts undertaken by State agencies in FY 20–21:

- **CENTRO** uses greywater to wash their bus fleet during spring, summer, and fall.
- **CUNY** has reduced water consumption at multiple campuses by converting water fountains to bottle filling stations, installing efficient plumbing fixtures, and integrating native plant species in campus landscaping.
- **Javits** installed two underground cisterns to capture and treat rainwater to irrigate rooftop vegetation.
- **State Parks** began using a drip irrigation system to conserve water at Taconic State Park's teaching garden.



of responding agencies

### USE HIGH-EFFICIENCY

### PLUMBING EQUIPMENT

at all or most of their facilities

**CENTRO** uses greywater to wash its bus fleet. ▼





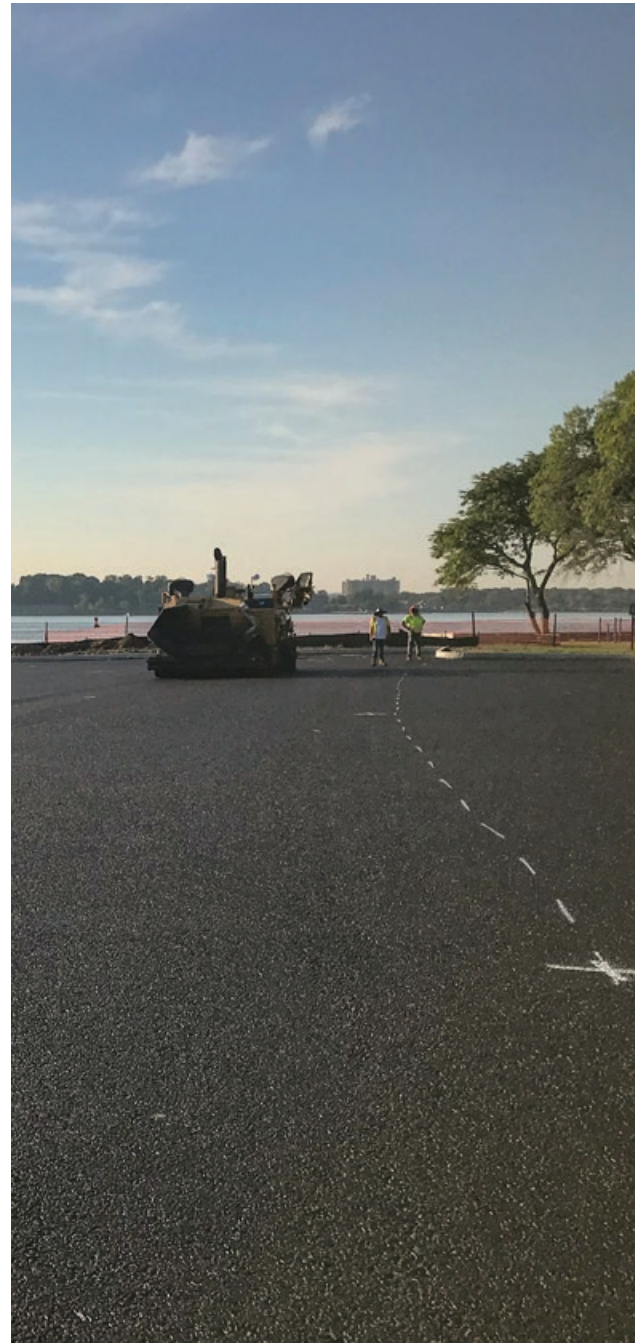
## Green Infrastructure and Stormwater

As open space is developed, rain and snowmelt are no longer able to soak into the ground and instead flow directly into streams and ponds. The quantity and speed of flow can cause erosion, flooding, pollution, and damage to aquatic habitat, personal property, and infrastructure such as roads, culverts, and sidewalks. Green infrastructure reduces the negative impacts of stormwater runoff by mimicking natural processes that slow or treat stormwater at its source. Green infrastructure is more cost-effective than constructing new stormwater and sewage catchment and treatment systems. Additional positive benefits include beautiful greenery, expanded wildlife habitat, improved air quality, energy savings, urban cooling, and enhanced resiliency to climate change.

State agencies continued to install green infrastructure in FY 20–21:

- **SUNY ESF** partnered with Onondaga County's Save the Rain Program to provide stormwater treatment on their campus. Forty-five trees consisting of thirteen separate native species were planted around SUNY ESF parking lots in the City of Syracuse. These trees will create additional habitat and cleaner air and water. This project will also infiltrate and treat stormwater onsite, which will help the city to reduce combined sewer overflow events.
- **DOT's** *Local Projects Manual*, which provides project requirements to all sponsors of local projects, includes a section on incorporating green infrastructure practices into projects, including stormwater best practices, bioretention and erosion control practices, reuse of topsoil, and the use of alternative seed mixes.
- **EFC** has awarded \$130 million to 230 projects through the Green Innovation Grant Program (GIGP) since 2009. The GIGP funds projects that improve water quality and mitigate the impacts of climate change on a competitive basis.
- **RIOC** is installing a 2,000-square-foot green roof on the new pavilion at Jack McManus Field.
- **SUNY Stony Brook** has been named a Groundwater Guardian Green Site by the Groundwater Foundation since 2014 for their stewardship of green spaces on campus for groundwater quality and management.

 EFC has awarded  
**\$130 million**  
TO 230 PROJECTS  
  
**THROUGH THE GIGP SINCE 2009**



▲ **SUNY Maritime** used permeable pavement to construct a new 154-space parking lot that will prevent runoff from going into the Long Island Sound.

JLGA/Rosemary Siciliano



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**RIOC** is installing a 2,000-square-foot green roof on their new pavilion at Jack McManus Field. ▼



Joe Tedesco





▲ **State Parks** installed porous pavement and a bioretention system at Southwick Beach State Park on Lake Ontario. In addition, they also restored adjacent dunes along Lake Ontario to stabilize the beach and reduce sand deposition within the park. ▼

State Parks



State Parks



## Sustainable Transportation

As COVID-19 began circling the globe, the world glimpsed what our clean transportation future looks like. Clearer skies. Cleaner air. Less congestion. These benefits, while temporary during the pandemic, are coming thanks to New York's continued leadership investing in and deploying more sustainable modes of transportation.

State agencies continued their leadership by implementing innovative projects:

- **CDTA** began the process of rolling out an e-scooter sharing program in the Capital District.
- **State Parks** began a pilot project with Toro to test out electric heavy-duty off-road equipment at Green Lakes State Park.
- **RGRTA** launched Reimagine RTS, a redesign of the Monroe County public transit system, which included the creation of 10 connection hubs, which host amenities such as enhanced bus shelters, real-time travel information, bike racks, and designated parking for OnDemand, Car Share, and RTS support vehicles. Four of the hubs also feature EV charging stations.
- **University at Albany** continued their successful partnership with CDPHP Cycle! and saw a total of 23,058 rides conducted between July 2020 and May 2021.
- **University at Buffalo** implemented a new on-demand ride program that tallied 7,979 rides between April 2020 and March 2021.

The GreenNY Council hosted Get There Green! in September to encourage New Yorkers to utilize sustainable modes of transportation. ▼

In addition, the pandemic showed that telework can efficiently and effectively play a role in decreasing emissions from transportation. Due to its initial success, state agencies began rolling out telework policies that are significantly decreasing employee miles traveled in single-occupancy vehicle trips.

There are over 7,000 transit buses in operation in the state and many serve the most densely populated cities. The five largest upstate and suburban fleets have bus electrification goals of 25% by 2025 and 100% by 2035, and for NYC

Transit, 500 buses by 2025 and 100% by 2040. **NYPA**, **DEC**, and **NYSERDA** are assisting many of the state's transit agencies in electrifying their fleets. Notable installations completed in 2021 include TCAT (Ithaca), UCAT (Kingston), and Westchester County.

Agencies also continued their rollout of electric vehicle charging infrastructure statewide to meet the needs of the public, their employees, and their vehicle fleets. This rollout included **NYSBA** installing EV infrastructure at all their facilities.

In September 2021, Governor Hochul launched the Get There Green! Campaign to coincide with Climate Week, which encouraged all New Yorkers to take at least one trip using sustainability transportation over the course of September 20–26. State agencies held a friendly competition to see which one's employees could offset the most carbon emissions during the event, with **DEC** winning the large-agency category, **NYSERDA** winning the medium-agency category, **GOER** winning the small-agency category, and the **University at Buffalo** winning in the SUNY-school category.

**New York State's ZEV fleet drove 400,000 more miles in FY 20-21 than in FY 19-20.**



DEC

ZEVS MAKE UP  
**5.24%**  
of the State's light-duty fleet

UP FROM 4% IN FY 19-20



ZEVS MADE UP  
**5.4%**  
of the State's light-duty fleet

PURCHASES IN FY 20-21



THE STATE'S ZEV FLEET TRAVELED  
**4.8 million**  
MILES IN FY 20-21



TOTAL VEHICLE MILES TRAVELED  
reported by 59 agencies was

**174.9 million**  
MILES

A DECREASE OF 14.5% FROM FY 19-20



**41 agencies**

REPORTED A DECREASE  
IN VEHICLE MILES TRAVELED



THE AVERAGE MPG  
OF A STATE AGENCY FLEET VEHICLE IS  
**25**

University at Buffalo



▲ University at Buffalo (SUNY) implemented a new on-demand transit service that provided almost 8,000 rides in FY 20-21.

United Way of the Greater Capital Region



▲ During Climate Week, CDTA and DEC held a pop-up demonstration event in downtown Albany to let people try out CDTA's new SCOOT e-scooter share vehicles. The event allowed people to test out this new mode of sustainable transportation.



# Buying Green

## Buying Green

New York State continues to be a national leader in environmentally preferable purchasing by using aggregated spending to procure competitively priced green products. In 2021, New York earned its fifth consecutive national award for excellence in sustainable electronics procurement from the Green Electronics Council, for requiring that all microcomputers purchased through OGS's aggregate buy [meet EPEAT requirements](#), a global environmental rating system managed by the Council.

Experience has shown that green products are competitively priced and perform as well as or better than conventional products, and in many cases can be purchased at a discount. Many green products, such as traffic safety equipment made from recycled plastic, glass beads in reflective paint made from recycled glass, and remanufactured toner cartridges, are consistently less expensive than conventional products. Many others, including 100% recycled content janitorial paper, green cleaning products, and soy-based ink, are consistently comparable in price to conventional products, and products such as green computers, lighting, solar power, and ZEVs can be purchased at a discount when life cycle costs and energy savings are considered. A list of competitively priced green products offered on state contract can be accessed [here](#).

**New York State agencies spent more than \$300 million on green products and services in FY 20–21, a new record high and 42% more than in FY 19–20.**

### GREEN SPENDING

Data on green spending was obtained by reviewing sales reports from OGS centralized contracts and spending data reported by agencies through the GreenNY reporting form. The total amount of purchases of green products from these two sources was more than \$300,000,000 in FY 20–21, which is a significant increase from the amount reported in FY 19–20. The agencies that reported the greatest amount of green spending were DOT, OGS, SUNY, and CUNY, which together accounted for more than 80% of the spending reported by agencies. The product categories with the highest levels of spending included EPEAT-certified computers, integrated vegetation management, environmentally preferable cleaning products and services, lighting products, furniture, and recycled copy paper.

### SAVINGS AND COSTS

Overall, data regarding the cost of green procurement continues to be encouraging. Although some agencies report working on ways to better track green spending, in FY 20–21, almost half of the agencies (48%) reported either a reduction in costs (9%) or that costs remained the same (39%), while only six agencies (9%) reported that there was an increase in costs as a result of implementing green procurement practices.

### Key Areas of Green Spending

#### OGS' COMPUTER AGGREGATE BUY

**\$183 million**



#### DOT'S INTEGRATED VEGETATION MANAGEMENT PROGRAM

**\$60 million**



#### OGS' GREEN CLEANING PROGRAM

**\$24.6 million**



#### LIGHTING PURCHASES MADE BY OCFS, SUNY, JAVITS, CUNY, NYSIF, DMNA, and several other agencies

**\$6.4 million**



#### FURNITURE PURCHASES MADE BY SUNY, WCMC, CUNY, DMNA, OPWDD, and several other agencies

**\$4.8 million**

#### Top 10 Green Purchasers, FY 20–21

Agency	Estimated Spending
Department of Transportation	\$60,788,780
Office of General Services	\$20,192,251
State University of New York	\$13,095,907
City University of New York	\$9,746,004
Westchester County Health Corporation	\$4,513,031
Office of Children and Family Services	\$3,379,028
Metropolitan Transportation Authority	\$1,988,805
Division of Military and Naval Affairs	\$1,911,243
New York Power Authority	\$1,752,491
New York State Insurance Fund	\$1,684,121

#### Summary of Green Spending by Product Category, FY 20–21

Product	Estimated Spending
EPEAT-Certified Computers	\$183,016,480
Integrated Pest or Vegetation Management	\$59,957,902
Cleaning Products and Services	\$27,371,019
Lighting Products	\$6,409,068
Furniture	\$4,800,108
Recycled Copy Paper	\$4,562,953
Solar PPAs	\$3,720,726
EPEAT-Certified Printers	\$1,763,124
Zero Emission Vehicles	\$1,510,106
Re-refined Motor Oil	\$1,453,824
Photovoltaic Systems	\$1,305,595
Carpet and Carpet Tile	\$1,156,466
EV Charging Stations	\$1,012,594
Water Fountains with Bottle Refill Stations	\$951,348
Recycling and Composting Services	\$697,607
Air Conditioners	\$249,186
Non-chemical Pest Management for Outdoor Spaces	\$83,645

New York earned its fifth consecutive national award for excellence in sustainable electronics procurement from the Green Electronics Council in 2021. ▼



Office of General Services



## Purchasing Recycled Paper

Paper is an essential commodity purchased in large quantities by State agencies. Paper manufacturing uses significant amounts of energy and natural resources and is a source of pollution and greenhouse gas emissions. To reduce these impacts, EO 4 requires the purchase of copy paper and the printing of agency publications on paper made from 100% post-consumer recycled content that is processed chlorine-free.

The term “processed chlorine-free” (PCF) refers to recycled paper in which the recycled content and any virgin material is unbleached or bleached without the use of chlorine or chlorine derivatives. Post-consumer material has completed its life as a consumer item and will be disposed of as solid waste if not recovered. The higher the post-consumer content, the more materials were diverted from the waste stream. The tables below present data on the amount of copy and janitorial paper purchased in 5 out of the past 10 fiscal years, broken out by percentage of recycled content.

### KEY COPY PAPER FINDINGS

By far the greatest amount, three-fifths (60%) of dollars spent on copy paper in FY 20–21 (\$1.1 million) went to purchase 100% post-consumer recycled content,

processed chlorine-free paper. This represents a 38-percentage point increase from the 22% (or \$3.3 million) spent on such paper in FY 08–09.

Sixty-one percent of agencies reporting paper purchases in FY 20–21 reported buying at least some 100% post-consumer recycled content, processed chlorine-free copy paper. Almost half of agencies reporting purchases (49%) continued to purchase paper with less than 30% recycled content. However, those purchases accounted for only 19% of the total number of boxes of copy paper purchased, and 21% of total dollars spent on copy paper. Shortages during the COVID-19 pandemic may explain agencies having to purchase more copy paper with less than 30% recycled content.

Analysis of paper purchasing data reveals that 100% post-consumer recycled content copy paper is not more expensive than copy paper with little to no post-consumer recycled content. On the contrary, over the past four fiscal years, agencies paid less for 100% post-consumer recycled content copy paper (at \$32 per box) than they did for paper with less than 30% post-consumer recycled content (at \$33 per box).

Copy Paper Purchases by Amount of Recycled Content							
	Agencies Reporting Purchases	FY	Percent of Agencies Reporting Purchases	Total Boxes Purchased	Total Dollars Spent	Average Price Per Box	Percent of Expenditures by Recycled Content
<b>100% Recycled Chlorine-free</b>	54	09–10	77%	159,857	\$6,320,148	\$39.5	49%
	45	17–18	69%	88,756	\$3,097,998	\$35	46%
	44	18–19	70%	90,806	\$2,790,958	\$31	48%
	47	19–20	75%	86,145	\$2,526,902	\$29	63%
	35	20–21	61%	33,311	\$1,144,026	\$34	60%
<b>30%–99% Recycled</b>	43	09–10	61%	110,028	\$3,803,229	\$34.5	30%
	36	17–18	55%	80,732	\$2,544,265	\$31.5	37%
	36	18–19	57%	57,955	\$1,541,596	\$27	26%
	31	19–20	49%	36,389	\$960,282	\$26	24%
	28	20–21	49%	16,831	\$374,517	\$22	19%
<b>&lt;30% Recycled</b>	21	09–10	30%	81,407	\$2,665,794	\$33	21%
	28	17–18	43%	38,719	\$1,165,436	\$30	17%
	23	18–19	37%	38,890	\$1,487,386	\$38	26%
	23	19–20	37%	17,262	\$500,813	\$29	13%
	28	20–21	49%	11,637	\$403,661	\$35	21%
<b>Total Agencies Reporting Purchases</b>	<b>70</b>	<b>09–10</b>	<b>N/A</b>	<b>351,292</b>	<b>\$12,789,171</b>	<b>N/A</b>	<b>100%</b>
	<b>65</b>	<b>17–18</b>		<b>208,207</b>	<b>\$6,807,699</b>		<b>100%</b>
	<b>63</b>	<b>18–19</b>		<b>187,651</b>	<b>\$5,819,940</b>		<b>100%</b>
	<b>63</b>	<b>19–20</b>		<b>139,796</b>	<b>\$3,987,997</b>		<b>100%</b>
	<b>57</b>	<b>20–21</b>		<b>61,779</b>	<b>\$1,922,204</b>		<b>100%</b>

Janitorial Paper Purchases by Amount of Recycled Content						
	Agencies Reporting Purchases	FY	Percent of Agencies Reporting Purchases	Total Cases of Janitorial Paper Purchased	Total Dollars Spent on Janitorial Paper	Percent of Expenditures by Recycled Content
<b>100% Recycled Chlorine-free</b>	28	09–10	88%	236,139	\$6,320,148	75%
	27	17–18	73%	166,802	\$3,097,998	57%
	25	18–19	81%	157,545	\$2,790,958	55%
	31	19–20	84%	176,628	\$2,526,902	66%
	25	20–21	81%	142,114	\$1,144,026	56%
<b>30%–99% Recycled</b>	22	09–10	69%	71,029	\$1,699,169	18%
	21	17–18	57%	88,770	\$1,894,017	30%
	18	18–19	58%	62,537	\$2,046,644	31%
	20	19–20	54%	46,499	\$1,565,156	24%
	21	20–21	68%	56,997	\$1,583,361	28%
<b>&lt;30% Recycled</b>	9	09–10	30%	81,407	\$2,665,794	8%
	11	17–18	43%	38,719	\$1,165,436	13%
	6	18–19	37%	38,890	\$1,487,386	13%
	8	19–20	37%	17,262	\$500,813	10%
	10	20–21	49%	11,637	\$403,661	16%
<b>Total Agencies Reporting Purchases</b>	<b>32</b>	<b>09–10</b>	<b>N/A</b>	<b>398,150</b>	<b>\$9,565,211</b>	<b>100%</b>
	<b>37</b>	<b>17–18</b>		<b>291,993</b>	<b>\$6,398,378</b>	<b>100%</b>
	<b>31</b>	<b>18–19</b>		<b>258,044</b>	<b>\$6,525,256</b>	<b>100%</b>
	<b>37</b>	<b>19–20</b>		<b>253,662</b>	<b>\$6,445,013</b>	<b>100%</b>
	<b>31</b>	<b>20–21</b>		<b>244,352</b>	<b>\$5,735,135</b>	<b>100%</b>

## KEY JANITORIAL PAPER FINDINGS

Fifty-six percent of dollars spent on janitorial paper in FY 20–21 (or approximately \$3.2 million) went to purchase 100% recycled-content paper. This amount represents a 22-percentage point increase from the 34% (or \$1.2 million) spent on such paper in FY 08–09.

Only 10 agencies (32% of agencies reporting purchases) continued to purchase unrecycled janitorial paper in FY 20–21. Such purchases amounted to only 16% of all reported dollars spent on janitorial paper.

OGS is focused on securing janitorial paper contracts requiring 100% post-consumer content, processed chlorine-free. Where this is not practicable, OGS aims for 100% recycled janitorial paper (containing 100% total recovered fiber), with a lesser amount of post-consumer fiber content.

## OTHER PAPER PURCHASES

The GreenNY reporting form asks agencies whether they purchased other types of paper such as colored paper, card stock, plotter paper, graph paper, bond paper, map paper, steno pads, etc. Thirty-one agencies reported purchasing other types of paper in FY 20–21.



## Green Specifications

EO 4, continued by Governor Hochul through EO 6, created a green procurement and agency sustainability program that has led to the creation of 76 specifications currently approved for use in state procurement. They cover over 120 different commodity, service, or technology products (e.g., the “Computers and Displays” specification covers nine types of devices: desktops, integrated computers, laptops, notebooks, tablets, small-scale servers, thin clients, monitors, and signage displays). A summary of the new specifications adopted by the Committee is provided below. A complete list of approved specifications, as well as their full text, is available on the [GreenNY website](#).

In April of 2021, four new specifications were approved by the EO 4 Interagency Committee, including new specifications for “Apparel and Textile Materials,” “Coating Removal Products,” “Garment Cleaning,” and “Laundry Detergent.”

At this meeting, the Interagency Committee also tentatively approved 21 specifications for “Air Purifiers,” “Commercial Coffee Brewers,” “Dishwashers,” “Hot Food Holding Cabinets,” “Griddles,” “Fryers,” “Commercial Ice Machines,” “Commercial Ovens,” “Commercial Refrigerators and Freezers,” “Commercial Steam Cookers,” “Dehumidifiers,” “Residential Clothes Dryers,” “Residential Dishwashers,” “Residential Freezers,” “Residential Refrigerators,” “Cookware and Bakeware,” “Foam Insulation,” “Lower-Carbon Concrete,” and “Refrigerant-Containing Equipment.” The Committee also tentatively approved two revised specifications for “General Purpose Cleaners” and “Hand Cleaners, Hand Soaps, Consumer Anti-septic Hand Washes and Hand Rubs, and Personal Care Cleansing Products.”

Ninety-six percent of agencies reporting in FY 20–21 said they review and use GreenNY procurement specifications when making purchasing decisions at least some of the time, and 78% said they review and use the specifications all (44%) or a majority (34%) of the time. These rates are comparable to the rates reported in FY 19–20.



**APPROVED GREENNY SPECIFICATIONS  
COVERING OVER 120 PRODUCTS**



### USING THE GREENNY SPECIFICATIONS

when making purchasing decisions

#### Green Specifications Finalized in April 2021

##### Apparel and Textile Materials

This specification includes requirements for apparel and raw textile materials. It requires affected entities to minimize purchases of apparel and raw textile materials to the least amount needed to carry out their missions and places limits on sourcing, anti-microbial agents, anti-odor agents, and products that can only be cleaned by dry cleaning. In addition, it encourages affected entities to purchase products that do not contain perfluorinated and polyfluorinated substances, are produced with recycled content, are produced with organic cotton, carry a third-party certification, and that minimize packaging.

##### Coating-Removal Products

This specification sets standards for chemical coating-removal products including those used to remove paint (oil- and latex-based), epoxy, shellac, lacquer, polyurethane, varnish, automotive, boat, bathtub, tile, asphalt/tar, and furniture coatings, as well as adhesives and graffiti. It requires purchasers to avoid products that contain methylene chloride (MC) or Nmethyl-2-pyrrolidone (NMP) and encourages the purchase of products that meet GreenSeal or UL EcoLogo certification. In addition, when a GreenSeal or EcoLogo product is not cost competitive or does not meet the form, function, and utility requirements of the purchaser, the specification encourages the purchase of a product that does not contain dimethyl formamide, ethyl benzene, methanol, naphthalene, Stoddard solvent, toluene, or xylene.

##### Garment Cleaning

This specification covers the professional cleaning of garments and requires affected entities to clean garments that require professional cleaning with a method that does not use perchloroethylene. It also encourages affected entities to utilize a hierarchy of alternative cleaning methods that includes professional wet cleaning, professional CO<sub>2</sub> cleaning, or cleaning with a DEC-approved solvent alternative.

##### Laundry Detergent

This specification sets standards for detergent used to wash clothing and other textiles. It requires affected entities to purchase in bulk and to purchase products that comply with Section 35 of the New York State Environmental Conservation Law and that meet either Green Seal or UL EcoLogo certification requirements.

## Green Specifications Tentatively Approved in April 2021

### Appliances and Commercial Equipment

This group of fifteen specifications covers several types of appliances and commercial equipment and requires the appliances and commercial kitchen equipment to meet Energy Star requirements. The specifications include “Air Purifiers,” “Commercial Coffee Brewers,” “Dishwashers,” “Hot Food Holding Cabinets,” “Griddles,” “Fryers,” “Commercial Ice Machines,” “Commercial Ovens,” “Commercial Refrigerators and Freezers,” “Commercial Steam Cookers,” “Dehumidifiers,” “Residential Clothes Dryers,” “Residential Dishwashers,” “Residential Freezers,” and “Residential Refrigerators.”

### Cookware and Bakeware

This specification sets standards for the purchase of cookware and bakeware and requires affected entities to explore surplus or reconditioned products before purchasing new products. In addition, when purchasing new products affected entities are required to avoid products with a California Prop 65 warning, that contain a PFAS-based non-stick coating or nanoparticle-infused non-stick coating and are encouraged to purchase products that contain recycled content and that limits the amount of packaging provided.

### Foam Insulation

This specification requires affected entities to procure lower-carbon insulation. It includes requirements for an Environmental Product Declaration statement, the use of blowing agents that use a lower Global Warming Potential (GWP) and sets limitations on the use of HFC-134a as a blowing agent. The specification also encourages entities to select foamed-in-place products made with alternative, polyurethane-free materials that do not contain chemicals of concern such as EPA listed flame retardants and that also achieve waste reduction, reduce embodied carbon and reduce the use of foam insulations.

### General Purpose Cleaners

This specification was updated to include new language requiring affected entities to purchase cleaning products that comply with the recently passed New York State Environmental Conservation Law (ECL) Article 35, which restricts the amount of 1,4 dioxane in cleaning products. 1,4-dioxane is a byproduct of the ethoxylation process used to make surfactants and is classified as a carcinogen under the National Toxicology Program.

### Hand Cleaners, Hand Soaps, Consumer Antiseptic Hand Washes and Hand Rubs, and Personal Care Cleansing Products

This specification was updated to include new language requiring affected entities to purchase cleaning products that comply with the recently passed New York State Environmental Conservation Law (ECL) Article 35, which restricts the amount of 1,4 dioxane in cleaning products. 1,4-dioxane is a byproduct of the ethoxylation process used to make surfactants and is classified as a carcinogen under the National Toxicology Program.

### Lower-Carbon Concrete

This specification sets standards for lower-carbon concrete used in buildings, roadways, and other infrastructure. The specification requires affected entities to set cement content limits and to reduce the cement content in concrete through the use of pozzolans and by reducing the percentage of binder in the mix. It also requires the purchase of concrete that has an environmental product declaration statement and encourages entities to maximize the Supplementary Cementitious Materials (SCM) percentage, reduce the volume of concrete needed, and consider the use of CO<sub>2</sub> injection in tandem with additional cement reduction.

### Refrigerant-Containing Equipment

This specification sets standards for refrigerant-containing equipment in order to lower the climate impacts of leaked refrigerants. The specification requires affected entities to evaluate options for refrigerant-containing equipment that utilizes the lowest GWP refrigerant available and to follow proper end-of-life guidance for the equipment. The specification also encourages the purchase of equipment that utilizes a low GWP and contains a built-in leak detection system, and encourages entities to take steps to reduce leaks in new and existing equipment.



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## Restricting the Use of Bottled Water

Single-use plastics are convenient but have a large environmental impact, both as litter in our streets and waterways and from the greenhouse gas emissions it takes to create them. That's why EO 18 directs all executive agencies to "develop and implement a plan to eliminate the expenditure of State funds for the purchase of bottled water for use at executive agency facilities." EO 18 defines "executive agencies" as "any department, agency, division, commission, bureau, or other entity of the State over which the Governor has executive power." Notably, authorities, public benefit corporations, and any other state entity that is not an executive agency are not covered, but many comply voluntarily.

Agency and authorities continue to report a high level of compliance with the directives of EO 18. All 40 executive agencies required to comply with EO 18 and reporting in FY 20–21 are in compliance. In addition, of the 30 authorities and other entities not covered by the Order, 24 (80%) adopted and met the goal of eliminating the purchase of bottled water. Thus, 64 out of the 70 reporting agencies and authorities report that they have eliminated their purchase of bottled water except for their documented and compliant exemptions.

Fourteen executive agencies covered by EO 18, and eight entities not covered (but nonetheless successfully meeting its goals), documented their need for an exemption at one or more locations, as allowed under the Order. Reasons for exemptions include working in remote areas without access to potable water and water contamination issues. Large offices served by reliable municipal water supplies generally reported no need for exemptions.

This year, COVID-19 continued to present a challenge to many agencies as it was of the utmost importance to ensure people's health and safety, and in some cases, the only way to do this was by using bottled water instead of refillable bottles, communal fountains, and re-fillers. Nevertheless, many agencies still managed to reduce their spending or spent the same as in FY 19–20 on bottled water. Nine agencies or authorities saved money specifically through efforts to reduce bottled water in FY 20–21, and the total savings from their cost reductions was \$105,829. Notably, **DHSES** reported spending \$87,000 less in FY 20–21 on bottled water compared to the last FY, and **CUNY** reported spending \$22,000 less.

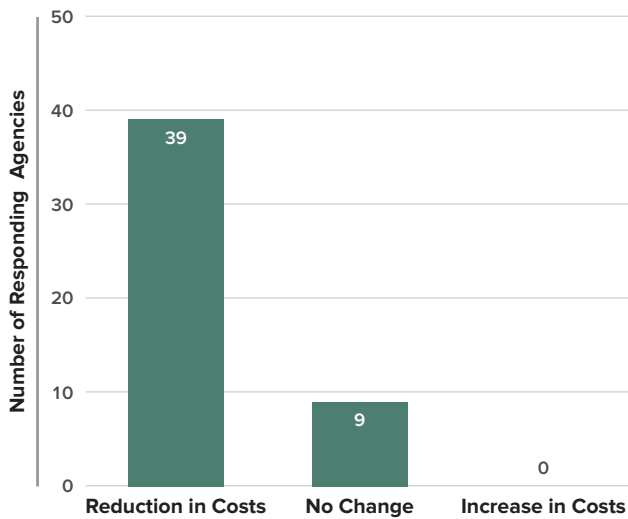
In summary, the data for FY 20–21 continue to document that the executive agencies covered by EO 18 have virtually eliminated the purchase of bottled water.

## Nine agencies and authorities saved money specifically through efforts to reduce bottled water in FY 20–21, saving \$105,829.

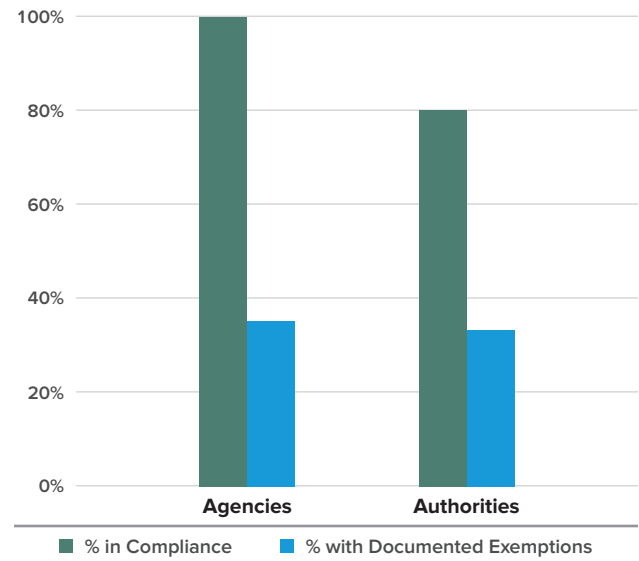
In addition, State agencies took actions in FY 20–21 to continue to decrease their reliance on bottled water, as well as the reliance of the communities they serve:

- **Hostos Community College (CUNY)** ensured that all new water fountains have bottle fillers. Only bottle filler stations remained in use during Phase 1 of COVID-19 reopening, thus encouraging students to bring their own bottles to campus. All water fountain spigots were turned off as a precaution during the pandemic.
- **State Parks** is working on installing hydration stations in parks statewide and have so far displaced over 1 million plastic water bottles.
- **Tax** continued to install bottle filling stations as they replace traditional water fountains within their facilities.
- **SUNY Albany** established a partnership with [Fill It Forward](#) where they purchase tags for refillable water bottles. The initiative provides the education to participants on the environmental impact of their choice. Participants download an app, and every time they use the bottle, they scan the tag and are notified of the environmental impact of that reuse as well as the collective effort of all the participants in the SUNY Albany group. In addition, the reuse triggers donations to clean water projects around the world.
- **DEC's** water bottle filling stations in their Central Office have saved more than 305,000 single-use water bottles.

**NUMBER OF ENTITIES EXPERIENCING A DECREASE, NO CHANGE, OR INCREASE IN COSTS ▼**



**AGENCIES AND AUTHORITIES IN COMPLIANCE AND THE PERCENTAGE OF THOSE THAT COMPLY WITH DOCUMENTED EXEMPTIONS ▼**



**SUNY Albany** promotes the use of personal reusable water bottles by installing water bottle filling stations around campus. They also established a partnership with [Fill It Forward](#), including an app that provides students insight into the positive impact their choice to reuse bottles has on the environment. ▼



University at Albany



# Conclusion

While COVID-19 tested New York, State agencies rose to the occasion. In FY 20–21, progress toward making State government operate more sustainably continued, as the State saw record funding spent on green products and services, an unprecedentedly high recycling rate, numerous contracts for large-scale renewable energy systems signed, and an increased focus on training and sustaining the employees who will ensure that even more sustainability projects get completed in the future. New York proudly continues to lead by example and show what is possible with a firm commitment to enhancing and improving our shared environment.

**ORDA** purchased a new all-electric zamboni for use at the Herb Brooks Arena in Lake Placid. The new zamboni reduces their fossil fuel usage as it doesn't require the propane used in conventional zambonis. ▼



ORDA

Agency sustainability coordinators learned about the latest climate science and how they can implement sustainability projects at their agencies at the annual GreenNY Forum. ▼



NYPA



**DOCCS** entered into a power purchasing agreement that led to the installation of 30.98 mWs of solar capacity across 5 sites. Pictures here is a 4.98 mW array dedicated to the Green Haven Correctional Facility.



[www.ny.gov](http://www.ny.gov)