



EXECUTIVE OFFICE OF THE PRESIDENT
WASHINGTON, D.C. 20503

December 08, 2021

M-22-06

MEMORANDUM FOR THE HEADS OF EXECUTIVE DEPARTMENTS AND AGENCIES

FROM: Shalanda D. Young
Acting Director
Office of Management and Budget

A handwritten signature in black ink, reading "Shalanda D. Young".

Brenda Mallory
Chair
Council on Environmental Quality

A handwritten signature in black ink, reading "Brenda Mallory".

Gina McCarthy
National Climate Advisor
Climate Policy Office

A handwritten signature in black ink, reading "Gina McCarthy".

SUBJECT: Catalyzing Clean Energy Industries and Jobs Through Federal Sustainability

This memorandum provides direction for agency compliance with today's Executive Order on Catalyzing Clean Energy Industries and Jobs through Federal Sustainability (E.O.). This memorandum is issued pursuant to section 510(a) of the E.O., which directs the Director of the Office of Management and Budget (OMB), in coordination with the Chair of the Council on Environmental Quality (CEQ) and the National Climate Advisor, to issue a memorandum that provides direction on immediate actions and further requirements to meet the policies and goals of the E.O.

The E.O. recognizes that the Federal Government faces broad exposure to the mounting risks and costs already posed by the climate crisis. Moreover, the E.O. directs the Federal Government to seize the economic opportunity presented by responding to the crisis to maximize the market for goods, products and materials that are made in America, create and sustain jobs, including well-paying union jobs; support a just transition for American workers; strengthen America's communities; protect public health; and advance environmental justice. It calls on the Federal Government to lead by example as we achieve a carbon pollution-free electricity sector by 2035 and net-zero emissions economy-wide by no later than 2050, and to use the Federal Government's scale and procurement power in achieving an ambitious set of goals:

- 100 percent carbon pollution-free electricity on a net annual basis by 2030, including 50 percent 24/7 carbon pollution-free electricity;

- 100 percent zero-emission vehicle acquisitions by 2035, including 100 percent zero-emission light-duty vehicle acquisitions by 2027;
- A net-zero emissions building portfolio by 2045, including a 50 percent emissions reduction by 2032;
- A 65 percent reduction in scope 1 and 2 greenhouse gas emissions from Federal operations by 2030 from 2008 levels;
- Net-zero emissions from Federal procurement, including a Buy Clean policy to promote use of construction materials with lower embodied emissions;
- Climate resilient infrastructure and operations; and
- A climate- and sustainability-focused Federal workforce.

The E.O. lays out a coordinated, whole-of-government approach that requires bold action to transform Federal procurement and operations and secure a transition to clean energy and sustainable technologies. The Administration is committed to effective implementation, accountability, and performance management to ensure the Federal Government achieves the E.O. goals.

To that end, this memorandum provides direction to agencies on establishing agency targets to meet E.O. goals and sets forth associated planning and reporting requirements. It also outlines governance, oversight, and management functions for E.O. implementation, including duties of heads of agencies, appointment of an Agency Chief Sustainability Officer, and direction to specific agencies to provide coordination and support for government-wide implementation efforts.

Consistent with section 510(b)(i) of the E.O., within 120 days of the issuance of the E.O., CEQ will issue Implementing Instructions for agencies that provide directions, strategies, and recommended actions to comply with the E.O., and, as necessary, additional guidance on meeting E.O. goals and requirements while advancing opportunities to maximize the market for products and materials made in America, create and sustain good jobs, including well-paying union jobs; support a just transition for American workers; strengthen America's communities; protect public health; and advance environmental justice.

Pursuant to section 509(c) of the E.O., the Department of Energy Federal Energy Management Program (DOE-FEMP), in coordination with CEQ and OMB, will provide tools and technical support to assist agencies in developing targets. Under section 503(c) of the E.O., OMB and CEQ will develop a performance management system that incorporates the goals and targets, and report on progress to the National Climate Advisor and National Climate Task Force (NCTF).

I. Sustainability Goals and Targets

A. Reducing Agency Greenhouse Gas Emissions

Section 202 of the E.O. directs agencies to establish reduction targets for scope 1, 2, and 3 greenhouse gas emissions, as defined by the *Federal Greenhouse Gas Accounting and Reporting Guidance* (see also section VII of this memorandum), for fiscal year 2030 with annual progress targets, measured from a fiscal year 2008 baseline.

To meet that directive, within 90 days of the issuance of CEQ and OMB guidance on setting greenhouse gas reduction targets, agencies must propose such targets to CEQ and OMB. CEQ and OMB will review, approve, and incorporate targets into performance management and evaluations established under section 503 of the E.O. and section IV(A) of this memorandum.

B. Transitioning to 100 Percent Carbon Pollution-Free Electricity

Section 203 of the E.O. directs each agency to increase its percentage use of carbon pollution-free electricity (CFE), so that it constitutes 100 percent of facility electrical energy use by fiscal year 2030, with 50 percent procured to match actual electricity consumption on an hourly basis and produced within the same regional grid where the electricity is consumed or “24/7” CFE. In addition, section 203 requires agencies to maximize opportunities to facilitate new CFE generation and storage capacity deployment.

To meet that directive, within 90 days of the issuance of CEQ and OMB guidance on setting CFE targets, agencies must propose such targets to CEQ and OMB. CEQ and OMB will review, approve, and incorporate targets into performance management and evaluations established under section 503 of the E.O. and section IV(A) of this memorandum.

To meet the CFE goals and targets established under the E.O., agencies should pursue policies and programs that promote or enable deployment of renewable and carbon pollution-free energy, such as energy storage technology, microgrids, carbon capture utilization and storage, and carbon-free hydrogen. In addition, agencies should incorporate CFE generation and energy storage into facility design and construction wherever practicable.

- 1) *Tracking progress toward the CFE goal.* To calculate progress, agencies may include CFE produced and consumed at a Federal facility; purchased from a utility service provider, retail service provider, or energy supply contractor, through a power purchase agreement; or procured as part of a performance contract. Where applicable to the energy source, agencies must maintain or obtain and retire any attributes representing the renewable or zero-carbon nature of the purchased electricity, such as renewable energy certificates (RECs). In coordination with the Department of Energy (DOE) and the Environmental Protection Agency (EPA), CEQ will develop methodologies for CFE accounting to measure progress toward the goals of the E.O., including accounting for the share of CFE delivered to the regional electrical grid.
- 2) *Government-wide coordination.* Transitioning to 100 percent CFE, and achieving 50 percent 24/7 CFE, will require coordination across agencies to streamline energy purchasing, consolidate and aggregate procurements, and leverage the expertise of the Department of Defense (DOD), DOE, and the General Services Administration (GSA) to contract for electricity for Federal agencies. Agencies must coordinate with DOD, DOE, and GSA to develop procurement strategies to achieve CFE goals and targets. DOD, DOE, and GSA must develop, in consultation with EPA and DOE-FEMP, robust accounting to facilitate tracking of CFE produced, used, or facilitated through such procurements.

- 3) *100 Percent 24/7 Carbon Pollution-Free Electricity Federal Leaders Working Group.* This working group established under section 508 of the E.O. will consist of representatives appointed by CEQ, DOD, DOE, EPA, GSA, OMB, and other agencies designated by the Chair of CEQ. The working group must provide recommendations on implementation of the CFE goals and report semiannually to the Federal Chief Sustainability Officer and the NCTF on its actions and progress toward achievement of CFE goals.

C. Transitioning to a Zero-Emission Fleet

Section 204 of the E.O. establishes that all light-duty vehicle acquisitions shall be zero-emission vehicles by the end of fiscal year 2027. Section 204 also requires each agency with a fleet comprising at least 20 vehicles, including leased and owned vehicles, to develop and annually update a zero-emission fleet strategy that includes optimizing fleet size and composition; deploying zero-emission vehicle re-fueling infrastructure; and maximizing acquisition and deployment of zero-emission light-, medium-, and heavy-duty vehicles where GSA offers one or more zero-emission vehicle options for that vehicle class. Section 102(a)(ii) further establishes that the Federal Government shall achieve 100 percent zero-emission vehicle acquisition in all vehicle classes by 2035. To meet these goals, agencies must take the actions set forth below.

- 1) *Zero-emission vehicle acquisition requirement.* Beginning in 2027, agencies must acquire zero-emission vehicles for all new vehicle acquisitions where GSA offers one or more zero-emission vehicle options for that vehicle class. For the purposes of meeting this requirement, plug-in hybrid vehicles may be considered zero-emission vehicles.

To the extent permitted by law, agencies must purchase domestically assembled vehicles consisting of domestically manufactured component parts that are assembled and manufactured pursuant to strong labor standards that promote hiring and retention of high-quality, well-trained, and productive employees.

- 2) *Zero-emission fleet strategy and annual targets.* Beginning June 30, 2022, and annually thereafter, each agency must submit a strategic plan for transformation of its fleet to zero-emission vehicles, including annual targets. Plans must include an assessment of agency site and fleet locations; a plan for installation of necessary charging or refueling infrastructure; an assessment of fleet size and composition to determine an optimum fleet inventory; elimination of unnecessary or non-essential vehicles from the agency's fleet; increasing the proportion of the fleet composed of zero-emission vehicles; and consideration of energy storage technologies and ancillary services to support vehicle-to-grid technology. CEQ and OMB will review, approve, and incorporate targets into a performance management system established under section 503 of the E.O. and section IV(A) of this memorandum.
- 3) *Fleet management.* To improve fleet efficiency and management capabilities, and facilitate effective planning for and acquisition, deployment, and use of zero-emission vehicles, agencies must:

- a) Convert agency-owned vehicles in the agency's fleet to GSA's leasing program, where appropriate, to more efficiently accelerate zero-emission vehicle acquisition and deployment;
 - b) Deploy vehicle telematics and collect and use fleet operational data to inform fleet planning and vehicle acquisition strategies; and
 - c) Report accurate asset-level fleet data annually through the Federal Automotive Statistical Tool.
- 4) *Zero-Emission Vehicle Fleets Federal Leaders Working Group.* This working group, established under section 508 of the E.O., will consist of representatives appointed by CEQ; DOD; DOE; the Departments of Homeland Security (DHS), Justice (DOJ), and Transportation (DOT); GSA; OMB; and other agencies designated by the Chair of CEQ. The working group will provide recommendations on implementation of zero-emission vehicle goals and report semiannually to the Federal Chief Sustainability Officer and the NCTF on its actions and progress toward achievement of zero-emission vehicle goals.
- 5) *Support for States, Tribes, and local governments.* To leverage co-benefits of economy-wide adoption of zero-emission vehicles and in alignment with direction provided in section 205 of E.O. 14008, *Tackling the Climate Crisis at Home and Abroad*, DOT and GSA must coordinate with States, Tribes, and local governments to facilitate wider adoption of zero-emission vehicles and, where appropriate, leverage the Federal Government's acquisition programs and other programs to support zero-emission vehicle procurement by non-Federal Government purchasers.

D. Net-Zero Emissions Buildings, Campuses, and Installations

Section 205 of the E.O. directs each agency to achieve net-zero emissions across its portfolio of buildings, campuses, and installations by 2045 and reduce greenhouse gas emissions by 50 percent from buildings, campuses, and installations by 2032 from 2008 levels. The E.O. outlines priority actions to achieve this goal, including net-zero design for new buildings, new Federal building performance standards, and implementation of building electrification strategies in conjunction with carbon pollution-free energy use, deep-energy retrofits, whole-building commissioning, energy and water conservation measures, and space reduction and consolidation.

To meet that directive, within 90 days of the issuance of CEQ and OMB guidance on setting net-zero emissions building targets, agencies must propose such targets to CEQ and OMB. CEQ and OMB will review, approve, and incorporate targets into performance management and evaluations established under section 503 of the E.O. and section IV(A) of this memorandum.

To meet the goals and targets and carry out the priority actions set forth in the E.O., agencies must take the actions set forth below.

- 1) *Building design, construction, and operation.* Agencies must ensure all new construction and modernization projects greater than 25,000 gross square feet entering the design phase in fiscal year 2022 and beyond are designed to be net-zero emissions by 2030, and where feasible, net-zero water and waste buildings.

- 2) *Federal Building Performance Standards.* Performance standards are a powerful tool to drive efficiency and emissions reductions in buildings. Pursuant to section 510(b)(ii) of the E.O., CEQ will issue Federal building performance standards to accelerate on-site emissions reductions and achieve building emissions goals. Agencies must use the standards in accordance with the guidance issued by CEQ.
- 3) *Capital planning and building retrofits.* Agencies must complete deep energy retrofits, prioritizing reductions of on-site emissions to achieve net-zero or near net-zero emissions at the building level where technically practicable, in at least 30 percent of covered facilities, as defined in section 432 of the Energy Independence and Security Act of 2007, by 2030.

Agencies must ensure that capital planning and retrofit projects consider and prioritize building electrification and replacement of fossil-fuel consuming equipment with technologies that use carbon pollution-free energy; incorporation of on-site generation of carbon pollution-free energy and energy storage; use of technologies that meet performance needs while reducing greenhouse gas emissions from building, campus, or installation operations; and where practical, use of ongoing data analytics for system diagnostics and persistence of savings.

- 4) *Leveraging Performance Contracting.* Performance contracting has proven to be an effective tool to improve efficiency and resilience of Federal facilities; deploy clean and innovative technologies; and reduce energy, water, and greenhouse gas emissions. Section 1002 of the Energy Act of 2020 requires agencies to use performance contracting to address at least 50 percent of energy- and water-saving measures identified through energy and water evaluations. As part of portfolio planning, agencies should seek opportunities to use direct funding, as authorized, in combination with performance contracts to increase project benefits, enable deployment of innovative technologies, and meet the goals and targets established under the E.O.
- 5) *Net-Zero Emissions Buildings Federal Leaders Working Group.* This working group established under section 508 of the E.O. will consist of representatives appointed by CEQ, DOD, DOE, the Department of Veterans Affairs, EPA, GSA, OMB, and other agencies designated by the Chair of CEQ. The working group must provide recommendations on implementation of the net-zero emissions building goals and report semiannually to the Federal Chief Sustainability Officer and the NCTF on its actions and progress toward achievement of net-zero emissions building goals.

E. Increasing Energy and Water Efficiency

Section 206 of the E.O. directs each agency to increase facility energy efficiency and water efficiency, and establish targets for fiscal year 2030 with annual targets for agency-wide facility energy use intensity and potable water use intensity.

To meet that directive, within 90 days of the issuance of CEQ and OMB guidance on setting energy and potable water use intensity targets, agencies must propose such targets to CEQ and OMB. CEQ and OMB will review, approve, and incorporate targets into performance

management and evaluations established under section 503 of the E.O. and section IV(A) of this memorandum.

F. Integrating Advanced Sustainability in Federal Buildings

Implementation of energy efficient, sustainable, healthy, and climate-resilient building practices when designing, locating, constructing, renovating, and operating Federal buildings has been a core element of Federal leadership in building performance. Furthermore, sustainable building practices advance achievement of the E.O. goals for reducing greenhouse gas emissions, energy, water, and waste. To further these the E.O. goals, agencies must take the actions set forth below.

- 1) *Sustainable federally owned buildings.* Each agency must ensure that all new construction and modernization projects greater than 25,000 square feet and entering the planning stage after January 31, 2022, are designed, constructed, and maintained to meet and, wherever practicable, exceed Federal sustainable design and operations principles for new construction and modernization projects in accordance with CEQ's *Guiding Principles for Sustainable Federal Buildings (Guiding Principles)*. All renovation projects of existing Federal buildings must use, to the greatest extent technically feasible and practicable, Federal sustainable design and operations principles for existing buildings in accordance with the *Guiding Principles*.
- 2) *Sustainable leasing.* To leverage the power of Federal procurement to promote carbon emissions reductions and environmental sustainability in its portfolio of contracts for leased space, within 180 days of the issuance of the E.O., GSA must develop guidelines for Federal green leases and update the guidelines as necessary thereafter. Each agency must ensure that all new (including new-replacing, succeeding, and superseding) leases entered into after September 30, 2023, for at least 25,000 rentable square feet in a building where the Federal Government leases at least 75 percent of the total building square footage are green leases. Such green leases must require the lessor to report to the agency annual data on facility greenhouse gas emissions, energy consumption, water consumption, and waste generation. New leases greater than 25,000 rentable square feet entered into after September 30, 2030, must be in net-zero emissions buildings.
- 3) *Sustainable and equitable siting.* Consistent with section 510(b)(iii) of the E.O., CEQ will issue guidance to promote sustainable locations for Federal facilities and strengthen the vitality and livability of the communities in which Federal facilities are located. GSA, in coordination with other agencies identified by CEQ, must provide recommendations to CEQ for topics to address in the guidance to include strategically locating Federal workplaces to promote efficient use of local infrastructure; expand public transportation use and access; and align Federal real estate investment with local or regional planning, sustainability, and equitable economic development goals. Agencies must consider this guidance in their siting of Federal facilities.

G. Sustainable Acquisition and Procurement

Section 208 of the E.O. establishes sustainable acquisition and procurement requirements, including purchasing, to the maximum extent practicable and after meeting statutory mandates, sustainable products and services identified or recommended by EPA.

Relevant requirements for purchasing preference established by statute include:

- Recycled content products identified by EPA's Comprehensive Procurement Guideline Program;
- Biobased products in categories designated by the Department of Agriculture (USDA);
- Energy efficient products certified by ENERGY STAR and energy and water efficient products designated by DOE-FEMP; and
- Products made with or containing acceptable alternatives to ozone-depleting substances listed by EPA's Significant New Alternatives Policy (SNAP) program.

EPA programs that identify sustainable products and services include:

- WaterSense;
- Safer Choice;
- SmartWay Transport partners and SmartWay products; and
- EPA Recommendations of Specifications, Standards, and Ecolabels for Federal Purchasing.

Consistent with section 208 of the E.O., agencies should prioritize substitutes for products that contain perfluoroalkyl or polyfluoroalkyl substances (PFAS). To the maximum extent practicable and consistent with statutory mandates, agencies should avoid the procurement of PFAS-containing covered items, as defined in section 333 of Public Law 116–283, as amended.

EPA, DOE, USDA, in coordination with the Office of Federal Procurement Policy, GSA, and other agencies as appropriate, should support the development of Federal training for the acquisition community and reporting systems to track implementation and progress to meet the requirements of section 208. Agencies should ensure contracting officers and other relevant staff receive, at minimum, annual training on sustainable acquisition policy, practices, and reporting requirements.

II. Driving Sustainability in the Federal Supply Chain

- 1) *Supplier climate disclosure and emissions reductions.* To support implementation of sections 301 and 302 of the E.O., to assist the Federal Government in assessing the results of efforts to reduce supply chain emissions, and as requested by CEQ and OMB, GSA must provide periodic recommendations on further actions to reduce supply chain emissions, based on information and data collected through supplier disclosures pursuant to section 5(b)(i) of E.O. 14030, *Climate-Related Financial Risk*, and other publicly available information.

In accordance with section 206 of E.O. 14008 and consistent with section 5(b) of E.O. 14030, the Federal Acquisition Regulatory Council should leverage existing third-

party standards and systems including the Task Force on Climate-Related Financial Disclosures (TCFD) Recommendations, CDP reporting system, and Science Based Targets Initiative (SBTi) criteria, or equivalents, in the development of regulatory amendments to promote contractor attention on reduced carbon emissions and Federal sustainability.

- 2) *Net-Zero Emissions Procurement Federal Leaders Working Group*. This working group established under section 508 of the E.O. will consist of representatives appointed by CEQ, DOD, DOE, the Department of Labor (DOL), DOT, EPA, GSA, OMB, USDA, and other agencies designated by the Chair of CEQ. The working group must provide recommendations on implementation of the net-zero emissions procurement goal and Buy Clean Policy, and report semiannually to the Federal Chief Sustainability Officer and the NCTF on its actions and progress toward achievement of net-zero emissions procurement goal.
- 3) *Buy Clean Task Force*. This task force established under the Net-Zero Emissions Procurement Federal Leaders Working Group will consist of representatives of agencies designated by the Chair of CEQ. In meeting the requirements of section 301 of the E.O., and to support implementation of a Federal Buy Clean policy, the Working Group and Federal agencies shall take the following actions:
 - a) Within 180 days of the issuance of the E.O., the task force must provide its recommendations regarding priority pollutants and materials to be covered under a Buy Clean policy, mechanisms for collecting environmental performance information for primary processing facilities of eligible materials, as well as recommendations for pilot programs to incentivize procurement of lower-embodied-emission materials.
 - b) Within one year of the issuance of the E.O., the task force must provide recommendations for financial and technical assistance to enhance manufacturer capabilities to report and reduce embodied emissions in priority materials, as well as mechanisms for collection and public disclosure of the data.
 - c) Within 15 months of the issuance of the E.O., and based on the recommendations of the task force, agencies must begin to take appropriate steps to collect environmental performance information for priority materials used in agency construction projects. Agencies also must ensure that such projects comply with Davis-Bacon prevailing wage requirements.
 - d) Within 24 months of the issuance of the E.O., EPA must complete benchmarking of industrial facilities, based on embodied carbon of the products produced, to facilitate implementation of Buy Clean programs and procurements.

III. Adapting the Federal Government to the Impacts of Climate Change

Climate Adaptation and Resilience Federal Leaders Working Group. The Working Group established under section 508 of the E.O. will include representatives from CEQ, DOD, DOE, the Department of the Interior, EPA, the Federal Emergency Management Agency, GSA, the Department of Health and Human Services, the National Oceanic and Atmospheric Administration, the National Security Council, OMB, the Office of Science and Technology Policy, and other agencies designated by the Chair of CEQ. The Working Group may establish

subgroups, as appropriate, to advance agency coordination, continual learning, and implementation in areas such as climate data and tools, infrastructure adaptation, public lands, waters (including freshwater, coastal, and ocean), coasts, and natural resources, adaptation metrics and evaluation, financial analysis, and supply chains.

IV. Governance, Oversight, and Management

A. Performance Management

- 1) As set forth in section 503(c) of the E.O., CEQ and OMB will conduct management reviews with each principal agency, at least annually and more frequently as appropriate, to assess implementation and progress on agency plans, E.O. goals, and agency targets. The Director of OMB will incorporate metrics and targets into annual agency scorecards, as appropriate.
- 2) As set forth in section 501 of the E.O., the Federal Chief Sustainability Officer has responsibility for leading development of policies, programs, and partnerships to achieve the policy and sustainability goals outlined in the E.O. The Federal Chief Sustainability Officer, in consultation with OMB, will ensure government-wide coordination and interagency collaboration; coordinate the work of committees, interagency groups, or working groups; chair, convene, and direct the work of the Chief Sustainability Officer Council; monitor Federal Government and agency progress toward E.O. goals; and prepare an annual report to the President on actions and progress.
- 3) As set forth in section 509(c) of the E.O., DOE-FEMP, in consultation with CEQ and OMB, will provide tools and technical support to agencies to develop targets as indicated in section 201 of the E.O. and collect, analyze, and report agency data for the purposes of monitoring and evaluating performance toward E.O. goals. Agencies must coordinate with DOE-FEMP to provide necessary data and meet reporting requirements established under the E.O.

B. Duties of Principal Agencies

Heads of principal agencies are responsible for ensuring successful implementation and achievement of the goals of the E.O. and targets established per this memorandum. Heads of principal agencies must:

- 1) Integrate the policy, goals, and requirements of the E.O. and this memorandum into the work of the agency's sustainability or climate task force or committee, or establish an agency committee or committees, chaired by the Agency Chief Sustainability Officer and composed of senior representatives from relevant bureaus, components, and offices, to ensure coordination and collaboration across critical agency functions;
- 2) Identify staffing, training, and associated resources necessary to achieve the goals of the E.O. and ensure they are incorporated in agency human capital planning;

- 3) Institute a culture of sustainability across all functions and foster outstanding performance by including objectives relevant to E.O. goals in the performance plans of agency executives, managers, and employees, as appropriate;
- 4) Ensure that new and renewed leases and contracts for operation of Federal Government-owned buildings or vehicles entered into after issuance of the E.O. include requirements to facilitate agency compliance with and achievement of the goals of the E.O. and requirements of this memorandum;
- 5) Ensure, to the maximum extent practicable, regional agency actions consider and are supportive of sustainability and climate preparedness priorities of States, Tribes, and local governments where agency facilities are located; and
- 6) Apply the strategies and plans to achieve the goals of the E.O. to activities and facilities not located within the United States and to fueling, operation, and management of tactical or emergency vehicles, where feasible and appropriate.

C. Duties of Other Agencies

Achieving the policy and governmentwide goals of the E.O. requires action across the Federal Government. Contributing agencies subject to executive policy must implement actions described above under *Duties of Principal Agencies*, where appropriate and consistent with the scope of the agency's operations.

The U.S. Postal Service, which has historically voluntarily complied with executive policies related to sustainability, energy, and environmental performance, is strongly encouraged to meet the goals of the E.O., and continue reporting on progress and performance. Other independent agencies are also strongly encouraged to voluntarily meet the goals of the E.O. and report on progress and performance.

D. Agency Chief Sustainability Officers

Section 502 of the E.O. directs heads of agencies, within 30 days of the issuance of the E.O. or 30 days of an Agency Chief Sustainability Officer leaving that position, to designate an Agency Chief Sustainability Officer and assign to the designated official the responsibility for ensuring effective implementation of the E.O. within the agency. The designee should be a senior executive of the agency (e.g., Deputy Secretary, Undersecretary or Assistant Secretary of Management or equivalent) with the authority to ensure allocation of resources to effectively implement the E.O. Agency Chief Sustainability Officers are responsible for:

- 1) Leading agency planning, implementation, and related actions to achieve the policy and goals of the E.O. and achievement of targets established under the E.O.;
- 2) Coordinating with agency leadership across policy and management functions, e.g., the Agency's Chief Financial Officer, Chief Information Officer, and Chief Acquisition Officer;

- 3) Reporting to the Chair of CEQ and Director of OMB regarding agency progress toward sustainability goals and targets;
- 4) If designated by the Chair of CEQ, representing the agency on the Chief Sustainability Officer Council;
- 5) Providing plans, reports, information, and assistance necessary to the Director of OMB, the Chair of CEQ, and the Federal Chief Sustainability Officer;
- 6) Convening regular meetings of relevant agency bureaus, components, or offices as necessary for effective implementation; and
- 7) Ensuring that regional facilities and personnel are integrated into sustainability planning, policies, and implementation.

Heads of agencies must provide notification of the designation, including the designee's title and contact information, in the form of a letter to the Chair of CEQ and Director of OMB with copy to the Federal Chief Sustainability Officer. Letters must be submitted no later than 30 days following the issuance of the E.O., in electronic format, to chair@ceq.eop.gov.

V. Regional Coordination

Within 180 days of the issuance of the E.O., each Regional office of EPA and GSA must convene an interagency workgroup, to include DOD and other agencies, as appropriate for that region, to identify opportunities for regional coordination to advance effective implementation of the E.O. The workgroups must consider opportunities for climate change preparedness and resilience planning in coordination with States, Tribes, and local communities; sharing of fueling infrastructure and logistical resources to support the adoption and use of zero-emission vehicles, and, where applicable, other alternative fuel vehicles; water resource management and drought response opportunities; and other areas of coordination to promote achievement of E.O. goals.

VI. Additional Instructions

As set forth in section 510(b)(i) of the E.O., the Chair of CEQ, in coordination with the Director of OMB and in consultation with the National Climate Advisor, will issue Implementing Instructions to provide directions, strategies, and actions to comply with the E.O. The Chair of CEQ will update the Implementing Instructions and issue additional guidance as necessary.

VII. Definitions

As used in the E.O. and this memorandum:

“24/7 carbon pollution-free electricity” means carbon pollution-free electricity procured to match actual electricity consumption on an hourly basis and produced within the same regional grid where the energy is consumed.

“Adaptation” means adjustment in natural or human systems to a new or changing environment that exploits beneficial opportunities or moderates negative effects.

“Agency” means an executive agency as defined in section 105 of title 5, United States Code, excluding the Government Accountability Office and independent regulatory agencies, as defined in 44 U.S.C. 3502(5).

“Buy clean” means a policy to promote purchase of construction materials with lower embodied emissions, taking into account the life-cycle emissions associated with the production of those materials.

“Carbon pollution-free electricity” or “CFE” means electrical energy produced from resources that generate no carbon emissions including marine energy, solar, wind, hydrokinetic (including tidal, wave, current, and thermal), geothermal, hydroelectric, nuclear, renewably sourced hydrogen, and electrical energy generation from fossil resources to the extent there is active capture and storage of carbon dioxide emissions meeting EPA requirements.

“Circular economy” means an economy that uses a systems-focused approach and involves industrial processes and economic activities that are restorative or regenerative by design; enable resources used in such processes and activities to maintain their highest values for as long as possible; and aim for the elimination of waste through the superior design of materials, products, and systems (including business models).

“Construction and demolition waste and debris” means waste materials and debris generated during construction, renovation, demolition, or dismantling of all structures and buildings and associated infrastructure.

“Contributing agencies” means agencies that are not included in the definition of principal agencies, including boards, commissions, and committees.

“Diverting” means redirecting materials from disposal in landfills or incinerators to recycling or recovery, excluding diversion to waste-to-energy facilities.

“Embodied emissions” means the quantity of emissions, accounting for all stages of production including upstream processing and extraction of fuels and feedstocks, emitted to the atmosphere due to the production of a product per unit of such product.

“Facility” means any building or collection of buildings, grounds, or structure, as well as any fixture or part thereof, that is owned by the United States or any Federal agency or is held by the United States or any Federal agency under a lease-acquisition agreement under which the United States or a Federal agency will receive fee simple title under the terms of such agreement without further negotiation.

“Greenhouse gas” means carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, nitrogen trifluoride, and sulfur hexafluoride.

“Heavy-duty vehicle” means a vehicle weighing 16,000 pounds gross vehicle weight rating or more, certified for use on all public roads and highways.

“Light-duty vehicle” means a vehicle weighing 8,500 pounds gross vehicle weight rating or less, certified for use on all public roads and highways.

“Medium-duty vehicle” means a vehicle between 8,500 pounds and 16,000 pounds gross vehicle weight rating, certified for use on all public roads and highways.

“National Climate Task Force” or “NCTF” means the National Climate Task Force established pursuant to section 203 of E.O. 14008.

“Net-zero emissions” means reducing greenhouse gas emissions to as close to zero as possible, and balancing remaining emissions with an equivalent amount of emission removal, through natural carbon sinks, carbon capture and storage, direct air capture, or other methods.

“Net-zero waste building” means a building that is operated to reduce, reuse, recycle, compost, or recover solid waste streams (with the exception of hazardous and medical waste) thereby resulting in zero waste disposal.

“Net-zero water building” means a building that is designed, constructed, or renovated and operated to greatly reduce total water consumption, use non-potable sources as much as possible, and recycle and reuse water in order to return the equivalent amount of water as was withdrawn from all sources, including municipal supply, without compromising groundwater and surface water quantity or quality.

“Principal Agencies” mean the Departments of State, the Treasury, Defense (including the U.S. Army Corps of Engineers), Justice, the Interior, Agriculture, Commerce, Labor, Health and Human Services, Housing and Urban Development, Transportation, Energy, Education, Veterans Affairs, and Homeland Security; the Environmental Protection Agency; Small Business Administration; Social Security Administration; National Aeronautics and Space Administration; Office of Personnel Management; General Services Administration; and National Archives and Records Administration.

“Renewable energy certificate” means the technology and environmental (non-energy) attributes that represent proof that 1 megawatt-hour (MWh) of electricity was generated from an eligible renewable energy resource, can be sold separately from the underlying generic electricity with which it is associated.

“Renewable Energy” means marine energy or electric energy generated from solar, wind, biomass, landfill gas, ocean (including tidal, wave, current, and thermal), geothermal, municipal solid waste, or new hydroelectric generation capacity achieved from increased efficiency or additions of new capacity at an existing hydroelectric project.

“Resilience” means the ability to anticipate, prepare for, and adapt to changing conditions and withstand, respond to, and recover rapidly from disruptions.

“Scope 1” means direct greenhouse gas emissions from sources that are owned or controlled by the agency.

“Scope 2” means indirect greenhouse gas emissions resulting from the generation of electricity, heat, or steam purchased by an agency.

“Scope 3” means greenhouse gas emissions from sources not owned or directly controlled by an agency but related to agency activities such as vendor supply chains, delivery and transportation services, and employee travel and commuting.

“United States” means the fifty States, the District of Columbia, the Commonwealth of Puerto Rico, Guam, American Samoa, the United States Virgin Islands, and the Northern Mariana Islands, and associated territorial waters and airspace.

“Zero-emission vehicle” means a vehicle that when operating produces zero tailpipe exhaust emissions of any criteria pollutant (or precursor pollutant) or greenhouse gas.