

**Petition for the General Services Administration (GSA)
To Commit the Federal Real Estate Portfolio to 100% Clean and Renewable Electricity
Sources, Lease Out Excess Clean Renewable Energy Capacity, and
Electrify the Federal Fleet with Zero Emission Vehicles**

December 2, 2021

“I am proud to affirm GSA's commitment to 100 percent renewable energy by 2025. This is an important step in reasserting the federal government’s leadership role in addressing the existential crisis of climate change.”

- Acting GSA Administrator Katy Kale, April 2021¹

I. Notice of Petition

Pursuant to section 553(e) of the Administrative Procedure Act, 5 U.S.C. §553(e) ("APA"), the Center for Biological Diversity hereby respectfully requests that the Administrator of the General Services Administration ("GSA") issue a rule committing the federal real estate portfolio to 100 percent renewable greenhouse gas pollution free electricity sources² by 2025 as stated by Administrator Kale, and transitioning the entire federal vehicle fleet to electric zero-emission vehicles by 2035.³ Such action is consistent with the agency’s authorizing legislation, and necessary to address the serious threats to climate, energy security, health, safety, and biodiversity posed by greenhouse gas emissions from the continuous reliance and extraction of fossil fuels and is in line with the Biden administration’s pledge to address climate change.

The right of an interested party to petition a federal agency is a freedom guaranteed by the first amendment: “Congress shall make no law...abridging the...right of people...to petition the Government for redress of grievances.”⁴ Under the Administrative Procedure Act (APA), all citizens have the right to petition for the “issuance, amendment, or repeal” of an agency rule.⁵ A

¹ GSA Earth Day Press Release, 2021: <https://www.gsa.gov/about-us/newsroom/news-releases/gsa-commits-to-renewable-energy-pledging-100-percent-renewable-electric-resources-by-2025-04222021>

² For the purposes of this petition renewable zero greenhouse gas electricity is defined as energy that is produced by a resource that generates no greenhouse gas emissions (e.g., carbon dioxide and methane). This definition does not include nuclear, renewable natural gas, or biomass resources.

³ 5 U.S.C. § 553(e) provides that “[e]ach agency shall give an interested person the right to petition for the issuance, amendment, or repeal of a rule.” 7 C.F.R. § 1.28 states that “interested persons” may file petitions in accordance with 5 U.S.C. § 553(e) “for the issuance, amendment or repeal of a rule ... with the official that issued or is authorized to issue the rule,” and that “[a]ll such petitions shall be given prompt consideration and petitioners will be notified promptly of the disposition made of their petitions.”

⁴ U.S. Const., Amend. I. *See also United Mine Workers v. Illinois State Bar Ass’n*, 389 U.S. 217, 222 (1967) (right to petition for redress of grievances is among most precious of liberties without which the government could erode rights).

⁵ 5 U.S.C. § 553(e).

“rule” is the “whole or part of an agency statement of general or particular applicability and future effect designed to implement, interpret, or prescribe law or policy.”⁶ The Petitioners exercise such rights to petition here. The GSA is required by its regulations and the APA to respond to this petition in a timely manner.⁷

II. Petitioners

The Center for Biological Diversity (“the Center”) is a nonprofit environmental organization dedicated to the protection of imperiled species and their habitats through science, education, policy, and environmental law. The Center has over 1.7 million members, supporters and activists dedicated to the conservation of endangered species and wild places, protection of human health and welfare, and combating climate change. The Center submits this Petition on its own behalf, on behalf of its members and staff with an interest in preventing the damages of further unnecessary fossil fuel extraction and the damages of climate change.

Any response and all correspondence related to this petition should be directed to the Center. The Center for Biological Diversity’s mailing contact information for the purposes of this petition is:

William J. Snape, III
Center for Biological Diversity
1411 K St. NW, Suite 1300
Washington, DC 20005
bsnape@biologicaldiversity.org
wsnape@wcl.american.edu
202-536-9351

III. Executive Summary

Despite a promising press release on Earth Day 2021, GSA has still not legally committed to clean renewable energy for the many federal government buildings under its jurisdiction, for the motor vehicles under its jurisdiction, or for potential leasing of excess clean renewable energy. The agency has also not defined “clean renewable energy” to omit polluting and damaging energy sources such as biomass.⁸

⁶ 5 U.S.C. §551(4).

⁷ 5 U.S.C. § 555(e) (“Prompt notice shall be given of the denial in whole or in part of a written application, petition, or other request of an interested person made in connection with any agency proceeding.”).

⁸ GSA’s recent Climate Risk Management Plan, dated September 2021, and GSA’s PBS-100 standard for the Public Building Service, dated October 2021, do not provide any additional clarity as to the agency’s regulatory commitment to transition to clean renewable energy.

Promoting demand-driven, regional renewable electricity use and replacing gas and diesel vehicles with electric options would enable reduced reliance on greenhouse gas-intensive energy sources and significantly reduce U.S. global warming emissions. Uncontroverted scientific evidence on global warming and credible predictions of this warming's negative societal and ecological impacts mandate action by the GSA on this petition.

On January 27, 2021, the Biden Administration signaled its focus on implementing a government-wide approach to addressing climate change by signing an Executive Order (EO) on Tackling the Climate Crisis at Home and Abroad.⁹ The EO builds upon previous climate change actions, such as submitting documentation to rejoin the Paris Agreement and the release of Biden's Plan for A Clean Energy Revolution And Environmental Justice.¹⁰ The EO calls for decarbonizing the electricity sector by 2035 and directs the government to buy clean and zero-emission vehicles for federal, state, local and tribal government fleets.¹¹

Since the EO, several powerful scientific and economic studies from public and private entities alike have underscored the true climate emergency we find ourselves in. For instance, both the International Energy Agency and the Intergovernmental Panel on Climate Change (IPCC) have issued dire warnings in 2021, pointing out the dangers inherent if humanity, and big GHG emitters such as the United States, do not reduce reliance on fossil fuels for energy and other purposes.

The GSA, as the *de facto* "agency of and for federal agencies," is well qualified to help streamline these goals across the federal government, which is the country's largest owner of real estate and world's largest purchaser of goods and services. The Federal government purchases nearly 53.8 million megawatt-hours of electricity annually, making it the single largest energy consumer in the United States.¹² Thus, federal procurement policies can either reinforce our current reliance on fossil resources, or provide a model template for a broader societal shift towards an emission free, renewable electricity and transportation sector.

Petitioners formally request that pursuant to her discretionary authority, the Administrator issue a rule committing the federal real estate portfolio to 100 percent renewable greenhouse gas pollution free electricity sources by 2025 and transitioning the entire federal vehicle fleet to electric and zero-emission vehicles by 2035 with interim goals in 2025 and 2030. This aligns with our country's aim to tackle the climate crisis and invest in innovative transformational

⁹ Exec. Order No. 14008, 86 Fed. Reg. 7619 (January 27, 2021).

¹⁰ Joe Biden. *The Biden Plan for a Clean Energy Revolution and Environmental Justice* (2020), available at <https://joebiden.com/climate-plan/> The White House. *Paris Climate Agreement* (2021), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/>

¹¹ Exec. Order No. 14008, 86 Fed. Reg. 7619 (January 27, 2021).

¹² U.S. Department of Energy, Energy Efficiency & Renewable Energy, Comprehensive Annual Energy Data and Sustainability Performance FY 2019. <https://ctsedwebweb.ee.doe.gov/Annual/Report/FederalAgencyUseRenewableElectricAsPercentageOfElectricityUse.aspx>

technologies that can help reduce U.S. greenhouse gas emissions, while also creating new economic opportunities in the energy, manufacturing, and automotive sectors. Proposed language for a proposed rule is contained in Appendix I, at the end of this legal petition.

IV. Factual Overview

The scientific evidence for climate change is unequivocal. The Earth is warming due to the marked increase in anthropogenic heat trapping greenhouse gases (GHGs) in the atmosphere caused by the burning of fossil fuels and rapid deforestation. The impacts of this dramatic warming effect can already be seen throughout the United States, from rising sea levels to droughts, wildfires, and more frequent and extreme weather events (e.g., hurricanes). Climate change is already affecting natural ecosystems, freshwater supplies, and public health domestically and around the world. Although many of the impacts of climate change are now inevitable, more significant impacts can be avoided by reducing the total amount of GHGs released into the atmosphere. According to the most recent International Panel on Climate Change report, limiting global surface temperatures to 1.5°C and 2°C during the 21st century is beyond reach unless there are immediate, rapid, and large-scale reductions in GHG emissions.¹³

As the nation's largest energy consumer, the federal government is poised to play a significant role in mitigating the most severe impacts of climate change. With more than 350,000 energy-utilizing buildings and 600,000 vehicles, the U.S. government consumes more energy than New Zealand.¹⁴ Vehicle and equipment use accounts for 60% of total federal government energy use, while the remaining 40% represents energy used in buildings and facilities.¹⁵ Federal buildings spend roughly \$6 billion for electricity and natural gas and produce more than 30 million metric tons of GHG emissions each year (*see* Table 1).¹⁶ Although federal buildings have been the subject of several statutes and executive orders aimed at improving their energy performance and environmental sustainability, total GHG emissions have not changed substantially since 2016.

¹³ IPCC, 2021: Summary for Policymakers. In: Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

¹⁴ Federal Energy Management Program, U.S. Department of Energy. About the Federal Energy Management Program (2021), available at <https://www.energy.gov/eere/femp/about-federal-energy-management-program>

¹⁵ *Id.*

¹⁶ U.S. Department of Energy. Comprehensive Annual Energy Data and Sustainability Performance, Tables A-3 and E-3" (2020) available at ctsedweb.ee.doe.gov/Annual/Report/Report.aspx.

Table 1. Facility energy use and GHG emissions in 2019 for the largest federal agencies¹⁷

	Floor area (Million Square Feet)	Energy Cost (million \$)	GHG Emissions (Million Metric Tons)
Defense	1,912	3,473	19.12
Veterans Affairs	205	409	2.56
Postal Service	273	519	2.37
Energy	127	486	2.31
General Services Admin.	204	349	1.34
Government-wide	3,221	6,324	32.89

Congress established energy requirements for federal buildings through the Energy Independence and Security Act of 2007 (EISA) and the 2005 Energy Policy Act (EPAct).¹⁸ EISA required federal buildings to reduce their energy use intensity by 3 percent per year, or a total of 30 percent, from 2005 to 2015.¹⁹ EPAct required that by 2013 and thereafter, renewable energy must account for at least 7.5 percent of total electricity use.²⁰ Executive Order 13693 released in 2015 under the Obama administration extended the EISA requirement and increased the EPAct target to 30 percent by 2025.²¹

Agencies were authorized to utilize three different strategies to meet the 2013 EPAct’s goal: 1) installing on-site renewable electricity generation at a federal facility; 2) purchasing electricity from renewable sources (produced either on- or off-site); and 3) purchasing renewable energy certificates (RECs).²²

The federal government met EPAct’s 2013 goal, largely through the purchase of renewable energy certificates (RECs)²³ but without purchasing the associated power.²⁴ After the Trump administration revoked the 2015 Obama Executive Order 13834, federal agencies reduced their total REC purchases, and renewable energy as a share of federal electricity use dropped by a third from its peak in 2016 (12.4%), although it remains just above the EPAct target of 7.5% at

¹⁷ *Id.*

¹⁸ 42 U.S.C. 17001; 42 U.S.C. 15801.

¹⁹ 42 USC 17083.

²⁰ 42 U.S.C. § 15852.

²¹ Exec Order No. 13693, 80 Fed. Reg. 15869 (Mar. 19, 2015).

²² 42 U.S.C. § 15852.

²³ A REC represents ownership of the environmental and other non-power attributes associated with generation of one megawatt-hour (MWh) of renewable electricity.

²⁴ Federal Energy Management Program, U.S. Department of Energy. *Comprehensive Annual Energy Data and Sustainability Performance 2013*. (2021), available at <https://ctsedweb.ee.doe.gov/Annual/Report/FederalAgencyUseRenewableElectricAsPercentageOfElectricityUse.aspx>

8.6%.²⁵ By contrast, the government as a whole failed to meet its EISA requirement with only a 23 percent reduction in energy intensity for federal buildings between 2005 to 2015.²⁶

On January 27, 2021, the Biden Administration released a new “Executive Order on Tackling the Climate Crisis at Home and Abroad.”²⁷ This order specifically includes a Section 205 on “Federal Clean Electricity and Vehicles Procurement Strategy” which directs the government to buy clean and zero-emission vehicles for federal, state, local and tribal government fleets.²⁸ This section also highlights “developing a comprehensive plan to create good jobs and stimulate clean energy industries by revitalizing the Federal Government’s sustainability efforts” which should “aim to use, as appropriate and consistent with applicable law, all available procurement authorities to achieve or facilitate... (i) a carbon pollution-free electricity sector no later than 2035.”²⁹ In addition, Section 210 on “Clean Energy in Financial Management” directs the heads of agencies to “identify opportunities for Federal funding to spur innovation, commercialization, and deployment of clean energy technologies and infrastructure...”³⁰

Meeting the Biden Administration goal of creating a 100% clean electricity grid by 2035 and catalyzing a robust zero emissions electric vehicle sector will require the rapid deployment of a diverse portfolio of greenhouse gas-free energy technologies (e.g., solar, wind, geothermal, and hydropower). The federal government can accelerate achievement of these objectives by adopting electricity and vehicle procurement practices that focus on zero emissions renewable electricity sources and zero emissions electric vehicles.

Greenhouse gas pollution free renewable federal electricity and vehicle procurement aligns with President Biden’s 2035 goal and effectuates his Climate Plan’s tenet of “[u]sing the Federal government procurement system – which spends \$500 billion every year – to drive towards 100% clean energy.”³¹ By adopting more ambitious renewable energy electricity and electric vehicle procurement policies, GSA will demonstrate federal government leadership and enhance private sector investment in emissions-free renewable energy.

²⁵ Federal Energy Management Program, U.S. Department of Energy. *Comprehensive Annual Energy Data and Sustainability Performance 2016-2019*. (2021), available at <https://ctsedwweb.ee.doe.gov/Annual/Report/FederalAgencyUseRenewableElectricAsPercentageOfElectricityUse.aspx>

²⁶ Federal Energy Management Program, U.S. Department of Energy. *Comprehensive Annual Energy Data and Sustainability Performance* (2021), available at <https://ctsedwweb.ee.doe.gov/Annual/Report/TotalSiteDeliveredEnergyConsumptionPerGrossSquareFootByFederalAgenciesByYear.aspx>

²⁷ Exec. Order No. 14008, 86 Fed. Reg. 7619 (January 27, 2021).

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

³¹ Joe Biden. *The Biden Plan for a Clean Energy Revolution and Environmental Justice* (2020), available at <https://joebiden.com/climate-plan/> The White House. *Paris Climate Agreement* (2021), available at <https://www.whitehouse.gov/briefing-room/statements-releases/2021/01/20/paris-climate-agreement/>

Therefore, Petitioners formally request that pursuant to her discretionary authority, the Administrator issue a rule committing the federal real estate portfolio to 100 percent renewable greenhouse gas pollution free electricity sources and transitioning the entire federal vehicle fleet to electric zero-emission vehicles by 2035.³² To this end, Petitioners request that the Administrator propose a rule to amend 48 C.F.R. part 23 to include new renewable energy and vehicle procurement requirements. The legislative and administrative authority outlined below provides the GSA with explicit authority to issue an order to commit the federal real estate portfolio to 100 percent renewable greenhouse gas pollution free electricity sources and transition the entire federal vehicle fleet to electric zero-emission vehicles by 2035.

V. Legislative and Administrative Authority

A. Contract Authority for Public Utility Services & Federal Acquisition Regulations

The General Services Administration is authorized by 40 U.S.C. 501 to prescribe policies and methods governing the acquisition and supply of utility services for Federal agencies.³³ This authority includes taking action for an executive agency “to the extent that the Administrator of General Services determines that the action is advantageous to the Federal Government in terms of economy, efficiency, or service...”³⁴ In addition to GSA’s general statutory procurement authority, they are also required to purchase sustainable products and services under the Federal Acquisition Regulations (FAR) System Part 23.³⁵ Part 23.202 defines the whole of government’s policy for procuring products that use renewable energy technology as “to acquire supplies and services that promote a clean energy economy that increases our Nation’s energy security, safeguards the health of our environment, and reduces greenhouse gas emissions from direct and indirect Federal activities.”³⁶ Part 23.7 directs agencies to contract for environmentally preferable and energy-efficient products and services.³⁷ “Environmentally preferable” is defined by FAR Part 2.101 to mean “products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.”³⁸

Electricity generated from renewable resources is advantageous to the Federal Government and fits the definition of “environmentally preferable.” Renewable energy is less prone to large-scale failure, can help stabilize energy prices, costs less to generate in terms of full lifetime costs,

³² This includes building out the supporting charging infrastructure on federal property to support this transition.

³³ 40 U.S.C. § 501(b); 48 CFR 41.103; GSA has delegated to the Department of Defense the authority to enter into utility service contracts on behalf of the military departments.

³⁴ 40 U.S.C. §501(a)(1).

³⁵ 48 CFR 23.

³⁶ *Id.* at § 23.202.

³⁷ *Id.* at §§ 23.101 - 23.105.

³⁸ *Id.* at § 23.101.

creates more jobs for each unit of electricity as compared to fossil fuels, creates new property tax revenue for local communities and new landowner income, improves public health, and significantly reduces U.S. global warming emissions. Electric vehicles also offer many economic and environmental benefits over conventional gasoline or diesel cars. The cost to charge electric vehicles is around 40% less than the cost to use gasoline for a similar sized vehicle driving the same distance.³⁹ Electric vehicles have fewer component parts than conventional gasoline or diesel engines resulting in less frequent maintenance checks and overall cheaper repairs. In addition, the American Lung Association estimates that thousands of premature deaths might be prevented and billions of dollars in health care costs could be avoided if the nation transitions to zero-emission vehicles.⁴⁰

In meeting past goals (e.g., EPO Act) for using renewable-generated electricity, federal agencies mostly purchased RECs without purchasing the associated power. In addition to this, traditional federal procurement approaches have relied upon purchasing renewable electricity from installations located far away from the consumer and whose generation does not correspond to the time at which the electricity is actually utilized. This practice has done little to reduce reliance on fossil generation that supplies the grid when adequate variable renewable generation is not available. GSA should adjust its renewable energy procurement policies to ensure electricity consumption is supplied by greenhouse gas free renewable sources on an hour-by-hour basis. In doing so, GSA will help lead the way for a nationwide system of energy storage and dispatchable emissions-free electricity to ensure that all local grids substantially reduce and eventually eliminate GHG emissions.

Similarly, GSA has traditionally required agencies that lease an electric vehicle to pay an upfront “incremental cost” that represents the difference between the price GSA negotiated for the EV versus the lowest price of a comparable internal combustion engine vehicle. Given that this charge can range anywhere from \$8,000 - \$18,000, it has been a serious deterrent to EV acquisition.⁴¹

B. Underutilized Land Leases for Renewable Energy Projects

Generally federal agencies procure renewables through power purchase agreements, direct appropriations to the agency by Congress, energy savings performance contracts (ESPCs), or utility energy service contracts (UESCs). The use of renewable energy outleasing across the

³⁹ Environmental Defense Fund. *How much does it cost to charge an electric car?* (2021). available at <https://www.edfenergy.com/electric-cars/costs>

⁴⁰ American Lung Association. *The Road to Clean Air Benefits of a Nationwide Transition to Electric Vehicles.* (2020), available at <https://d1lung6i9j8i9xc.cloudfront.net/wp-content/blogs.dir/123/files/2020/09/ALA-electric-vehicle-report.pdf>

⁴¹ Dorothy Robyn. *Driving Change: A Front-Loaded, Aggressive Strategy for Federal Procurement of Electric Vehicles.* (Dec. 7, 2020), available at <https://itif.org/publications/2020/12/07/driving-change-front-loaded-aggressive-strategy-federal-procurement-electric>

federal portfolio however is relatively rare. The federal government manages over 370 million square feet of space which includes many suitable roofs, parking lots, and other assets on which solar panels could be placed to generate power and additional revenue streams. GSA has sufficient authority to establish renewable energy outleasing as a promising alternative to traditional procurement methods to advance renewable energy deployment across the federal portfolio.

Under an outleasing arrangement, GSA can lease all or a portion of a vacant facility asset (e.g., rooftop, parking lot, etc.) to a private developer who installs a renewable energy system on agency property and contracts for that agency to purchase the power generated by the system. Such arrangements, if successful, provide a mutual benefit to all parties involved. The project developer benefits by generating a steady revenue stream and tax benefits. The local utility benefits by avoiding the cost of adding new generating capacity, which frees existing capacity to be used for peak demand. Eventually these benefits are passed on to the taxpayer through reduced facility energy costs.

GSA has successfully utilized its outleasing authority to rent roof space to allow private telecommunications companies to place antennae's. These installations have significantly boosted the nationwide telecommunications network and have generated significant revenue for GSA by using previously underutilized rooftop space. GSA-outleased antenna inventory produces revenues close to \$6 million annually which represents 26% of GSA's total outleasing revenue.⁴²

NASA and USPS have demonstrated the potential of the renewable outleasing model at federal facilities. NASA's Kennedy Space Center (KSC) facilitated the installation of a 10 MW a Florida Power & Light (FPL) photovoltaic (PV) system through their Enhanced Use Lease (EUL) authority codified in 51 U.S.C. 20145.⁴³ The EUL agreement was signed in June 2008 and the PV system has been in operation since 2010.⁴⁴ KSC has plans to expand its solar capacity by installing an additional 74.5 MW PV system from FPL.⁴⁵ NASA is also installing a 20 MW solar PV array on underutilized land at the Michoud Assembly Facility (MAF) in New Orleans, Louisiana through an agreement with Entergy New Orleans, LLC. (Entergy).⁴⁶ Once the project is completed, NASA will receive full fair market value cash in exchange for the lease with the option to convert to in-kind share in the future.

Similarly, in 2017, the U.S. Postal Service (USPS) installed an 11-MW alternating current system, with around 35,000 solar panels, at its Los Angeles, California, Processing and

⁴² GSA Green Building Advisory Committee. Advice Letter on Renewable Energy Outleasing. (2020), available at https://www.gsa.gov/cdnstatic/FINAL_REO_TG_Advice_Ltr_7-9-20_-_508.pdf

⁴³ *Id.*

⁴⁴ *Id.*

⁴⁵ *Id.*

⁴⁶ *Id.*

Distribution Center.⁴⁷ The panels avoid roughly 18.8 million pounds of carbon dioxide emissions each year which is equivalent to removing 2,000 cars from the road.⁴⁸ The panels also generate enough electricity to power around 2,420 homes annually.⁴⁹ This project was completed through the Los Angeles Department of Water and Power (LADWP) Feed-in-Tariff (FiT) program which allows solar system providers to sell the power generated to LADWP, while USPS collects lease payments.⁵⁰ Through this contract, 1 MW of the system was installed as a Net Energy Metering (NEM) system that USPS can utilize for its own energy.⁵¹

GSA like NASA has the authority to outlease federal property under several different mechanisms: 54 USC § 306121, 306122 (Nat'l. Historic Preservation Act) provides for broad road authority to outlease unused portions of historic properties; Pub. L. 108-447 allows broad real estate conveyance authority; 40 USC § 581(h) (Public Buildings Coop. Use Act) allows the outlease of pedestrian level and rooftop spaces for commercial, cultural, educational, or recreational activity; and 40 USC § 543 authorizes the disposal of surplus property, including by lease.⁵²

Renewable energy outleasing is a win-win situation for the federal government. The government can take advantage of new revenue streams while stimulating investment in clean renewable energy and green economic development.

C. The National Environmental Policy Act (NEPA), Section 102(1), and GSA Order ADM 1095.1F require GSA to consider the policies of NEPA, which include avoiding climate catastrophe and promoting clean renewable energy sources within the agency's authority

Under ADM 1095.1F, the GSA, in all of its decision-making, "will attend carefully to the National Environmental Policy set forth in Section 101 of NEPA," and "[t]o the maximum extent practicable...will ensure that its actions protect and where possible improve the quality of the human environment, including the built and sociocultural environments of the nation's urban areas."⁵³

One of the main purposes of the National Environmental Policy Act (NEPA), 43 U.S.C. § 4321 et seq., is to "promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man."⁵⁴ Section 101 of NEPA sets forth a clear

⁴⁷ *Id.*

⁴⁸ *Id.*

⁴⁹ *Id.*

⁵⁰ *Id.*

⁵¹ *Id.*

⁵² 54 USC §§ 306121-306122; Pub. L. 108-447; 40 USC § 581(h); 40 USC § 543

⁵³ GSA Order, ADM 1095.1F Environmental Considerations in Decision Making, (Oct. 19, 1999) available at https://www.gsa.gov/cdnstatic/GSA_ADM_1095.1F.pdf

⁵⁴ 42 U.S.C. § 4321 et seq.

statement of national goals and policies to protect and enhance the quality of our environment. Section 101 formally declares:

“[I]t is the continuing responsibility of the Federal Government...to improve and coordinate Federal plans, functions, programs, and resources to...attain the widest range of beneficial uses of the environment without degradation, risk to health or safety, or other undesirable and unintended consequences; [and to] enhance the quality of renewable resources and approach the maximum attainable recycling of depletable resources.”⁵⁵

The text of § 101 imposes duties on federal agencies that requires them to “use all practicable means, consistent with other essential considerations of national policy,” to achieve the broad policy goals set out in § 101(b). This leaves little doubt that Congress intended the Act to achieve a substantive result in furthering the protection and enhancement of our ecological resources. In fact, NEPA regulations further support the argument that Section 101 imposes a substantive duty on Federal agencies, stating that “[t]he President, the federal agencies, and the courts share responsibility for enforcing the Act so as to achieve the substantive requirements of Section 101.”⁵⁶

NEPA’s legislative history also supports the view that Congress envisioned a substantive reorientation of agency responsibilities. According to the Senate report, NEPA’s broad policy provisions are a “body of law” which would determine the propriety of agency actions. Language in the conference report confirms this interpretation: “A statement of environmental policy is more than a statement of what we believe as a people and as a Nation. It established priorities and gives expression to our national goals and aspirations. It provides statutory foundation to which administrators may refer for guidance in making decisions....”⁵⁷

Significantly, the phrase “to the fullest extent possible” in Section 102 means that each agency of the Federal Government shall comply with that section unless existing law applicable to the agency’s operations expressly prohibits or makes compliance impossible.⁵⁸ Thus, the use of the phrase “to the fullest extent possible,” appears to demonstrate congressional intent to affect a real shift in agency priorities. Federal courts have enforced the interpretive and administrative force of NEPA § 102(1) through judicial review. In *Calvert Cliffs’ Coordinating Committee, Inc. v.*

⁵⁵ *Id.* at § 4331.

⁵⁶ 40 C.F.R. §1500.1 (1991)

⁵⁷ U.S. Government Printing Office. Summary of Committee Activities in the 91st Congress. Hearings, Reports and Prints of the Senate Committee on Interior and Insular Affairs. (1972) at 7, available at <https://play.google.com/books/reader?id=0RM2AAAAIAAJ&pg=GBS.PA12&hl=en>.

⁵⁸ *Id.*

*United States Atomic Energy Commission*⁵⁹, Judge Skelly Wright held that Section 102(1) clearly implies a mandate that requires federal agencies to substantively consider environmental factors in their decision-making.⁶⁰ He further held that an agency decision could be reversed on the merits if it could be “shown that the actual balance of costs and benefits that was struck was arbitrary or clearly gave insufficient weight to environmental values.”⁶¹ The Eighth Circuit followed in *Environmental Defense Fund, Inc. v. Corps of Engineers*.⁶² The Court found that “NEPA was intended to effect substantive changes in decision making.”⁶³ The Court also held that “courts have an obligation to review substantive agency decisions on the merits.”⁶⁴ This continuity in substantive NEPA review jurisprudence has been followed by decisions in many federal circuit and district courts.⁶⁵

Section 102(1), irrespective of any EA or EIS requirement, provides those organic statutes and legal authorities such as GSA’s are to be interpreted and administered in accordance with the policies of NEPA, particularly when as here, the price of making the correct environmental choice is cheaper than the dirtier, more polluting set of alternatives. *See, e.g., Center for Biological Diversity v. U.S. Forest Serv.*, 349 F.3d 1157, 1166 (“The procedures prescribed both in NEPA and the implementing regulations are to be strictly interpreted ‘to the fullest extent possible’ in accord with the policies embodied in the Act 42 U.S.C. 4332(1)”); Harvey Bartlett, *Is NEPA Substantive Review Extinct, or Merely Hibernating? Resurrecting NEPA Section 102(1)*, 13 Tul. Env’t L.J. 411 (2000).

Under the Final Guidance on the Consideration of Greenhouse Gas Emissions and the Effects of Climate Change in NEPA Reviews,⁶⁶ agencies must consider climate change in relation to a proposed agency action. With this new guidance comes the need for agencies to consider how to address greenhouse gas emissions stemming from Federal actions. GSA is not exempt from this new guidance, and as a result, should consider renewable energy as an alternative to its use of coal and gas. In light of these provisions, the GSA should review its traditional utility procurement and supply mandates to ensure that they comply with NEPA’s environmental objectives.

⁵⁹ *Calvert Cliffs’ Coordinating Committee, Inc. v. United States Atomic Energy Commission*, 449 F.2d 1109 (D.C. Cir. 1971)

⁶⁰ *Id.* at 1112.

⁶¹ *Id.* at 1115.

⁶² *Environmental Defense Fund, Inc. v. Corps of Engineers*, 470 F.2d 289 (8th Cir. 1972).

⁶³ *Id.* at 297.

⁶⁴ *Id.* at 298.

⁶⁵ *See Iowa Citizens for Environmental Quality, Inc., v. Volpe*, 487 F.2d 849 (8th Cir. 1973); *Sierra Club v. Froehlke*, 486 F.2d 946 (7th Cir. 1973); *Conservation Council v. Froehlke*, 473 F.2d 664, 4 ERC 2039 (4th Cir. 1973); *Concerned About Trident v. Schlesinger*, 400 F. Supp. 454. (D.D.C. 1975); *Duck River Preservation Ass’n V. Tenn. Val. Auth.*, 410 F. Supp. 756. (E.D.Tenn. 1974); *McDowell v. Schlesinger*, 404 F. Supp. 221 (WD Mo. 1975); *Schicht v. Romney*, 372 F. Supp. 1270 (ED Mo. 1974).

⁶⁶ 81 C.F.R. 51866 (2016).

D. Executive Order 14008: Tackling the Climate Crisis at Home and Abroad

President Joe Biden on January 27, 2021, issued the EO on Tackling the Climate Crisis at Home and Abroad.⁶⁷ Sec. 205. of the EO calls on the chair of the Council on Environmental Quality, the administrator of General Services, and the director of the Office of Management and Budget, together with other relevant agencies, to assist the national climate advisor in developing a plan on federal procurement of clean electricity and zero-emissions vehicles for the nearly 600,000 civilian vehicles owned or leased by the federal government.⁶⁸ The EO specifically directs the group to develop a plan that “shall aim to use, as appropriate and consistent with applicable law, all available procurement authorities to achieve or facilitate: (i) a carbon pollution-free electricity sector no later than 2035; and (ii) clean and zero-emission vehicles for Federal, State, local, and Tribal government fleets, including vehicles of the United States Postal Service.”⁶⁹ As part of the January EO, GSA in collaboration with the Chair of the Council on Environmental Quality and the Director of the Office and Management and Budget, in coordination with the Secretary of Commerce, the Secretary of Labor, the Secretary of Energy, and other relevant agencies, are to help the National Climate Advisor draft a plan of execution within 90 days of the EO.⁷⁰ That plan has yet to materialize.

E. U.S. Code Title 40: Public Buildings, Property, and Works

Absent a strong federal presence, cities, states and companies have taken the lead in adopting renewable energy mandates. Thirty states, Washington, D.C., and three territories have now adopted Renewable Portfolio Standards, while seven states and one territory have set renewable energy goals. On January 18, 2019, for example Mayor Bowser signed the Clean Energy DC Omnibus Amendment Act of 2018, setting a mandate of 100% renewable electricity by the year 2032 that also applies to all federal buildings within the district.⁷¹ Washington, D.C., has the tightest deadline, leapfrogging Hawaii and California, both of which earlier committed to 100 percent clean energy by 2045.

These RPS standards are often coupled with state laws that recognize local government authority over planning and zoning regulation but declare a statewide interest in energy efficient development patterns and encourage municipal authorities to include a renewable energy section in their master plans. Many local governments have in turn passed development codes that

⁶⁷ Exec. Order No. 14008, 86 Fed. Reg. 7619 (January 27, 2021).

⁶⁸ *Id.*

⁶⁹ *Id.*

⁷⁰ *Id.*

⁷¹ D.C. Law 22-257. Clean Energy DC Omnibus Amendment Act of 2018.

promote active and passive use of solar and wind energy.⁷² Under 40 U.S. Code § 901, GSA must recognize local zoning and land use policies as it pertains to the management of federal property. The policy outlines that “to the greatest extent possible,” urban land transactions entered into by GSA “shall be consistent with zoning and land use practices and with the planning and development objectives of local governments and planning agencies.”⁷³ The purpose of this policy is to promote harmonious intergovernmental relations and encourage sound planning, zoning, and land use practices. Thus, local planning and zoning regulations that promote the active and passive use of renewable energy should be incorporated into GSA’s land use plans.

F. U.S. General Services Administration FY 2011 Climate Change Adaptation Policy Statement

In 2011, the GSA Office of the Administrator published its Climate Change Adaptation Policy Statement, with a stated purpose of establishing “an agency-wide directive for the U.S. [GSA] to integrate climate change adaptation planning and actions into its decision-making processes, programs, policies, and operations...”⁷⁴ This policy was recently updated in 2021, though with no regulatory standards for GSA to follow. The policy applies to all GSA program actions, including but not limited to: real property acquisition through Federal construction, purchase, or lease, including lease extensions; public buildings design and construction, alteration and operation, and, *inter alia*, acquisition of supplies and services for the Federal customer. According to its policy statement, the “GSA shall undertake climate change adaptation planning, in consultation with GSA’s Office of Federal High-Performance Green Buildings and implement the results of that planning using *best available science* and information,”⁷⁵ further stating that “GSA shall consider potential climate change impacts when undertaking long-term planning, setting priorities for research and investigations, and making decisions affecting GSA resources, programs, policies and operations.”⁷⁶

The Policy Statement also requires each of GSA’s Services and Staff Offices to “review existing programs, operations, policies and authorities to: identify potential long-term impacts of climate change on the organization’s areas of responsibility; prioritize and implement response actions that promote operational resiliency in response to potential changes; and continuously assess and improve capacity to adapt to current and future climate change impacts and threats.”⁷⁷

⁷² American Planning Association. 2014. Planning and Zoning for Solar Energy. https://planning-org-uploaded-media.s3.amazonaws.com/document/product_EIP_E_IP30.pdf

⁷³ 40 U.S. Code § 901

⁷⁴ U.S. GSA, FY 2011 Climate Change Adaptation Policy Statement, GSA Office of the Administrator, *available at*: http://www.gsa.gov/portal/mediaId/125090/fileName/200027_Final.action

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

G. *Energy Independence & Security Act of 2007 (EISA)*

EISA requires newly constructed federal buildings and those undergoing major retrofits to reduce fossil fuel consumption by up to 100 percent by 2030, relative to 2003.⁷⁸ Through EISA, the Department of Energy (DOE) is required to develop rules for how agencies should determine whether the facility is in compliance with the statute and establish a set of performance standards, but have not yet established such rules.⁷⁹ However a supplemental proposed rule is planned to be released in December of 2021.⁸⁰ EISA also recognizes GSA as one of the main implementing agents responsible for converting facilities into high-performance green buildings.⁸¹ Section 436 authorized GSA to establish an Office of Federal High-Performance Green Buildings and is directed to coordinate green building activities across the federal government and establish an interagency Federal Green Building Advisory Committee.⁸² EISA also requires the GSA to work in coordination with DOE's Office of Commercial High-Performance Green Buildings.⁸³

VI. **Reasons for Action on Petition**

A. *Climate Change Poses a Well-Documented Threat to the United States and the World*

An overwhelming international scientific consensus has established that human-caused climate change is already causing severe and widespread harms and that climate change threats are becoming increasingly dangerous. The climate crisis, caused primarily by fossil fuels, poses an existential threat to every aspect of society. Fossil fuel-driven climate change has already led to more frequent and intense heat waves, floods, and droughts; more destructive hurricanes and wildfires; rising seas and coastal erosion; increased spread of disease; food and water insecurity; acidifying oceans; and increasing species extinction risk and the collapse of ecosystems.⁸⁴ The climate crisis is killing people across the nation and around the world, accelerating the extinction crisis, and costing the U.S. economy billions in damages every year.⁸⁵ The harms from the climate crisis and fossil fuel pollution are not felt equally, but instead fall first and worst on Black, Brown, Indigenous, and other communities of color, as well as low-wealth and other

⁷⁸ 42 U.S.C. 17001.

⁷⁹ 42 U.S.C. 6834(a)(3)).

⁸⁰ 10 CFR 433; 10 CFR 435.

⁸¹ 42 USC 17092.

⁸² *Id.*

⁸³ *Id.*

⁸⁴ U.S. Global Change Research Program. *Climate Science Special Report: Fourth National Climate Assessment*, Vol. I (2017), available at <https://science2017.globalchange.gov/>; U.S. Global Change Research Program. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II (2018), available at <https://nca2018.globalchange.gov/>.

⁸⁵ *Id.*, Hsiang, Solomon et al., Estimating economic damage from climate change in the United States, 356 *Science* 1362 (2017), <https://science.sciencemag.org/content/356/6345/1362>.

frontline communities, worsening the environmental justice crisis.⁸⁶ The vast scientific literature documenting these findings has been set forth in a series of authoritative reports from the Intergovernmental Panel on Climate Change, U.S. Global Change Research Program, and other institutions,⁸⁷ which make clear that fossil-fuel driven climate change is a “code red for humanity.”⁸⁸

The Fourth National Climate Assessment, published by the U.S. Global Change Research Program (USGCRP) in 2018, concluded, “the evidence of human-caused climate change is overwhelming and continues to strengthen... the impacts of climate change are intensifying across the country, and ... climate-related threats to Americans’ physical, social, and economic well-being are rising.”⁸⁹ The Intergovernmental Panel on Climate Change’s (IPCC) 2018 special report, “Global Warming of 1.5 degrees Celsius,” followed shortly after and affirmed that “warming from anthropogenic emissions from the pre-industrial period to the present will persist for centuries to millennia and will continue to cause further long-term changes in the climate system...”⁹⁰ The IPCC report quantified the devastating harms that would occur at 2°C temperature rise versus 1.5°C, highlighting the necessity of limiting warming to the Paris Agreement target of 1.5°C to avoid catastrophic impacts to people and life on Earth.⁹¹ The report concluded that global anthropogenic CO₂ emissions must be halved by 2030 and reach near zero around 2050 to limit warming to 1.5°C.⁹² The IPCC’s Sixth Assessment Report confirmed these findings and concluded that stabilizing the climate will require strong, rapid, and sustained

⁸⁶ Donaghy, Tim & Charlie Jiang for Greenpeace, Gulf Coast Center for Law & Policy, Red, Black & Green Movement, and Movement for Black Lives, *Fossil Fuel Racism: How Phasing Out Oil, Gas, and Coal Can Protect Communities* (2021), <https://www.greenpeace.org/usa/wp-content/uploads/2021/04/Fossil-Fuel-Racism.pdf>; U.S. Environmental Protection Agency, *Climate Change and Social Vulnerability in the United States: A Focus on Six Impacts*, EPA 430-R-21-003 (2021), www.epa.gov/cira/social-vulnerability-report.

⁸⁷ U.S. Global Change Research Program. *Climate Science Special Report: Fourth National Climate Assessment*, Vol. I (2017), available at <https://science2017.globalchange.gov/>; U.S. Global Change Research Program. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II (2018), available at <https://nca2018.globalchange.gov/>; IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

⁸⁸ United Nations Secretary-General, *Secretary-General’s statement on the IPCC Working Group I Report on the Physical Science Basis of the Sixth Assessment*, Aug. 9, 2021, <https://www.un.org/sg/en/content/secretary-generals-statement-the-ipcc-working-group-1-report-the-physical-science-basis-of-the-sixth-assessment>.

⁸⁹ U.S. Global Change Research Program. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II (2018), available at <https://nca2018.globalchange.gov/>

⁹⁰ International Panel on Climate Change. *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, World Meteorological Organization, (2018), available at <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers>.

⁹¹ *Id.*

⁹² *Id.* at Summary for Policymakers 12-14; Chapter 2 at 95, Figure 2.5, Figure 2.6.

reductions in greenhouse gas emissions, including reaching at least net zero CO₂ emissions in the next few decades.⁹³

However, U.S. climate policy is still inadequate to meet the Paris Agreement climate limits and avoid the worst damages of the climate crisis. The concentration of CO₂ in the atmosphere is still rising, peaking at 419 ppm in May 2021—the highest it has ever been in human existence⁹⁴ and a level not seen for at least 2 million years.⁹⁵ Since 1970, global surface temperatures have increased faster than in any other 50-year period over the last 2000 years.⁹⁶ Global temperatures of the last decade are likely the hottest it has been on Earth in 125,000 years.⁹⁷ If trends in carbon emissions remain unchanged, the hottest daily temperatures are likely to increase by at least 10°F by the end of the century.⁹⁸ Other parts of the world, especially in areas that are most vulnerable to extreme heat, may experience even worse conditions.

As the earth warms, glaciers and large ice sheets melt while ocean water expands. Global average sea level has already risen by eight inches since 1901 and sea level rise is accelerating in pace,⁹⁹ threatening coastal communities and local infrastructure throughout the world. Between 2011-2020 the total surface area of Arctic Sea ice reached its lowest level with late summer cover lower than it has ever been in the past 1000 years.¹⁰⁰ The Gulf of Mexico along with the eastern seaboard of the United States are currently experiencing some of the world's most rapid rates of sea level rise. Elsewhere, entire island nations could become submerged and uninhabitable within a few decades. Several estimates demonstrate that if emissions remain unchecked, sea levels could rise to a staggering eight feet by the end of this century.¹⁰¹

⁹³ IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press. at SPM-36.

⁹⁴ National Oceanic and Atmospheric Administration. *Carbon dioxide peaks near 420 parts per million at Mauna Loa observatory*, (June 7, 2021), available at <https://research.noaa.gov/article/ArtMID/587/ArticleID/2764/Coronavirus-response-barely-slows-rising-carbon-dioxide>.

⁹⁵ IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press.

⁹⁶ *Id.*

⁹⁷ *Id.*

⁹⁸ *Id.*

⁹⁹ *Id.*

¹⁰⁰ *Id.*

¹⁰¹ International Panel on Climate Change. *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the*

Climate change is increasing the frequency and intensity of extreme weather events, particularly heat waves, heavy precipitation events, and more destructive hurricanes.¹⁰² For example, warmer air and ocean temperatures provide additional fuel for more frequent and extreme hurricanes that result in unprecedented amounts of rain and wind. Devastating mega-storms like Hurricane Katrina, Sandy, Harvey and Maria now occur much more frequently—on average every 16 years as opposed to pre-global warming trends of once every 100 years.¹⁰³ The Midwest is experiencing heavier and more frequent rainfall, leading to destructive inland flooding. In drier regions of the world, global warming exacerbates longer, more frequent and extreme droughts. Fire seasons are lasting longer and in some cases like the American West, may last all year. The fires themselves are becoming more destructive, more common, and more expensive to combat.¹⁰⁴

The direct impacts of climate change are alone catastrophic, but they can also worsen existing inequalities and conflicts between nations. For example, droughts and extreme temperatures will lead to price spikes and food shortages for commodity crops. There are roughly 800 million people currently living in extreme poverty, many of which will be displaced by severe droughts and accelerating sea-level rise.¹⁰⁵ The scarcity in resources and the mass migration that will result from these changes could escalate social and political tensions and, in some cases, lead to conflict and war.

Climate change is increasing stress on species and ecosystems and is driving many species toward extinction.¹⁰⁶ One million animal and plant species are now threatened with extinction,

context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty, World Meteorological Organization, (2018), available at <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers>.

¹⁰² U.S. Global Change Research Program. *Climate Science Special Report: Fourth National Climate Assessment*, Vol. I (2017), available at <https://science2017.globalchange.gov/> at 18-20; IPCC, 2021: Summary for Policymakers. In: *Climate Change 2021: The Physical Science Basis. Contribution of Working Group I to the Sixth Assessment Report of the Intergovernmental Panel on Climate Change* [MassonDelmotte, V., P. Zhai, A. Pirani, S. L. Connors, C. Péan, S. Berger, N. Caud, Y. Chen, L. Goldfarb, M. I. Gomis, M. Huang, K. Leitzell, E. Lonnoy, J. B. R. Matthews, T. K. Maycock, T. Waterfield, O. Yelekçi, R. Yu and B. Zhou (eds.)]. Cambridge University Press. In Press. at SPM-10.

¹⁰³ Kerry Emanuel, *Assessing the present and future probability of Hurricane Harvey's rainfall*, 114 PNAS 12681 (2017), available at <https://www.pnas.org/content/114/48/12681.full>.

¹⁰⁴ U.S. Global Change Research Program. *Impacts, Risks, and Adaptation in the United States: Fourth National Climate Assessment*, Volume II (2018), available at <https://nca2018.globalchange.gov/>.

¹⁰⁵ International Panel on Climate Change. *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, World Meteorological Organization, (2018), available at <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers>.

¹⁰⁶ Warren, Rachel et al., Increasing impacts of climate change upon ecosystems with increasing global mean temperature rise, 106 *Climatic Change* 141 (2011); Scheffers, Brett R. et al., The broad footprint of climate change from genes to biomes to people, 354 *Science* 719 (2016).

with climate change as a primary driver,¹⁰⁷ and climate change-related local extinctions are already widespread.¹⁰⁸ Climate-vulnerable ecosystems like coral reefs, which support thousands of marine species and the livelihoods of a half billion people, face global collapse.¹⁰⁹ Species extinction risk will accelerate with continued carbon pollution, threatening the loss of a third or more of animal and plant species in the next 50 years.¹¹⁰ Scientists have called for a rapid transformation of our energy system away from fossil fuels to avoid a mass extinction event.¹¹¹ The most severe impacts of climate change are directly linked to the amount of heat trapping greenhouse gasses in the atmosphere. Scientists have concluded that avoiding the most severe impact of climate change requires limiting global warming to 1.5°C as opposed to 2°C.¹¹² This can only be accomplished by eliminating emissions in the energy sector. As the nation's largest energy consumer, the federal government has a critical role to play in abating the worst impacts of climate change.

B. Economic Benefits Beyond Accelerating the Reduction in Emissions from Federal Electricity Use

As one of the largest real estate owners and tenants in the U.S., the Federal government has significant power to drive market action to spur investment in renewable energy and vehicle electrification. New federal procurement policies can create tens of thousands of new American jobs across the clean energy sector, as well as associated U.S. manufacturing supply chains. Federal offtake can help innovative greenhouse gas-free energy technologies get financed and built. By signing contracts to purchase renewable electricity, the federal government can provide a replicable model that can help accelerate the commercialization of advanced emissions-free energy technologies.

GSA manages approximately 370 million square feet of space in over 8,700 owned and leased properties across the country, in all 50 states. Embracing procurement strategies that unlock the

¹⁰⁷ Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), Global Assessment Report (May 6, 2019), <https://ipbes.net/news/Media-Release-Global-Assessment>.

¹⁰⁸ Wiens, John J., Climate-related local extinctions are already widespread among plant and animal species, 14 PLoS Biology e2001104 (2016).

¹⁰⁹ Veron, John E.N. et al., The coral reef crisis: the critical importance of <350 ppm CO₂, 58 Marine Pollution Bulletin 1428 (2009); Carpenter, Kent E. et al., One-third of reef-building corals face elevated extinction risk from climate change and local impacts, 321 Science 560 (2008); Eakin, C. Mark et al., Caribbean corals in crisis: record thermal stress, bleaching, and mortality in 2005, 5 PLoS ONE e13969 (2010).

¹¹⁰ Román-Palacios, Christian & J.J. Wiens, Recent responses to climate change reveal the drivers of species extinction and survival, 117 PNAS 8 (2020).

¹¹¹ Barnosky, Anthony D., Transforming the global energy system is required to avoid the sixth mass extinction, 2 MRS Energy and Sustainability E10 (2015).

¹¹² International Panel on Climate Change. *Global warming of 1.5°C. An IPCC Special Report on the impacts of global warming of 1.5°C above pre-industrial levels and related global greenhouse gas emission pathways, in the context of strengthening the global response to the threat of climate change, sustainable development, and efforts to eradicate poverty*, World Meteorological Organization, (2018), available at <https://www.ipcc.ch/sr15/chapter/summary-for-policy-makers>.

value of renewables would have a tangible impact for local communities. When renewable resources are located within or near the region they serve, it reduces the risk of price shocks caused by disruptions in fuel supplies stemming from difficulties transporting the resource or international conflict and stalled trade relations. It also allows fossil dependent communities to diversify their energy portfolio and create new local economic opportunities.

Renewable energy generation on public lands makes important contributions to the domestic economy. These projects represent billions of dollars in capital investments and provide thousands of construction and operations and maintenance jobs. Once online, the projects provide steady revenue to the U.S. Treasury as well as state and local governments. For example, between 1982 and 2019 rent and royalty payments from renewable energy development on public lands have contributed over \$660 dollars to federal, state, and local governments.¹¹³ The capital costs associated with constructing and operating renewable energy projects on public lands have contributed over \$13 billion dollars to the economy since 1996.¹¹⁴ These projects have also created over 12,000 construction jobs and over 1,700 operations and maintenance jobs.¹¹⁵

In addition to these advantages, renewables offer other opportunities to generate income and save money. Surplus energy generated from onsite renewable energy projects can be sold back to the grid. Since 2007, for example, GSA's Region 8 (Rocky Mountain Region) earns around \$400,000 thousand annually by selling its surplus renewable energy generation back to utilities.¹¹⁶ Renewable sources are also far more effective at converting energy into electricity compared to fossil resources. A typical power plant burns three units of fuel to produce one unit of electricity with 33% lost as waste heat.¹¹⁷ GSA's Region 8, for example, saves an additional \$750,000 in annual utility cost reductions from renewable energy sources across the entire lifecycle.¹¹⁸ GSA also plans to install a new wind turbine system at the Sam Nunn Atlanta Federal Center in Atlanta and estimates that they will save more than \$791,000 annually through avoided operating costs associated with fossil-based electricity production.¹¹⁹

¹¹³ Yale Center for Business and the Environment. *Key Economic Benefits of Renewable Energy on Public Lands*, (2021) available at <https://cbey.yale.edu/research/key-economic-benefits-of-renewable-energy-on-public-lands>

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ U.S. General Services Administration. Renewable Energy Not New to Region 8, (April 21, 2021) available at <https://www.gsa.gov/about-us/regions/welcome-to-the-rocky-mountain-region-8/region-8-newsroom/feature-stories/renewable-energy-not-new-to-region-8-04212021>

¹¹⁷ Hao Liang and Weihua Zhuang. *Stochastic Modeling and Optimization in a Microgrid: A Survey*, (Mar. 31, 2014) *Energies*, 7(4) 2027, 2027, available at <https://www.mdpi.com/1996-1073/7/4/2027/htm>

¹¹⁸ U.S. General Services Administration. Renewable Energy Not New to Region 8, (April 21, 2021) available at <https://www.gsa.gov/about-us/regions/welcome-to-the-rocky-mountain-region-8/region-8-newsroom/feature-stories/renewable-energy-not-new-to-region-8-04212021>

¹¹⁹ U.S. General Services Administration. Harnessing wind for a greener future, (Apr. 22, 2021) available at <https://www.gsa.gov/about-us/regions/welcome-to-the-southeast-sunbelt-region-4/region-4-newsroom/around-the-region/harnessing-wind-for-a-greener-future-04222021>

Adding additional renewable capacity to the grid has the potential to increase these savings dramatically. A recent report estimated that fully electrifying the energy sector with clean renewable energy could save each household on average between \$1,050 to \$2,585 per year (the average American household spends about \$4,470 per year) on its energy bills.¹²⁰ Additional studies conducted by the New York Independent System Operator, Synapse Economics, and the National Renewable Energy Laboratory demonstrated that adding 8 GW of wind capacity in New York State would save \$1.3 billion in power plant operation costs per year, which translates to around \$65 per person.¹²¹ Studies of from the Midcontinent Independent System Operator and PJM Interconnection found similar savings with \$12.2 billion per year saved by adding 40 GW of wind capacity in MISO and \$14.5 billion per year by adding an addition 22 percent of wind capacity in PJM.¹²²

Similar estimates have found that a transition to electric vehicles could generate 1.9 million new jobs.¹²³ Federal agencies and taxpayers would also likely benefit from greatly reduced fueling and vehicle maintenance costs, since many electric vehicles are projected to have significantly less expensive lifecycle maintenance needs than internal combustion-engine equivalents. In 2020, for example, the government spent \$729 million to fuel the federal fleet and more than \$1.3 billion in maintenance and repairs.¹²⁴ A Consumer Report study estimates that the total lifetime ownership savings of most EVs range from \$6,000 - \$10,000.¹²⁵ This equates to nearly \$4,600 dollars in savings for lower maintenance costs over the vehicle's lifetime in addition to the \$800 to \$1,000 a year (or \$4,700 or more over the first seven years) saved on fueling costs over an equivalent gasoline-powered car.¹²⁶ EVs also depreciate slower compared to their traditional gasoline-powered counterparts. Newer models can now travel more than 200 miles on a single charge alone.¹²⁷ Thus, the benefits of expanding the use of renewables and electric vehicles are significant not only for the government but also taxpayers and local communities.

¹²⁰ Saul Griffith and Sam Calisch. *No Place Like Home: Fighting Climate Change (and Saving Money) by Electrifying America's Households*. (Oct. 2020) available at <https://www.rewiringamerica.org/household-savings-report>.

¹²¹ New York Independent System Operator (NYISO). *Growing Wind- Final Report of the NYISO 2010 Wind Generation Study*, (Sep. 30, 2010) available at <https://offshorewindhub.org/resource/720>

¹²² Synapse Energy Economics, Inc. *The Potential Rate Effects of Wind Energy and Transmission in the Midwest ISO Region*. (May 22, 2012) available at <https://cleanenergygrid.org/wp-content/uploads/2012/05/Full-Report-The-Potential-Rate-Effects-of-Wind-Energy-and-Transmission-in-the-Midwest-ISO-Region.pdf>; Synapse Energy Economics, Inc. *Benefits of Wind and Transmission in PJM*, (Jul. 2013) available at <https://www.synapse-energy.com/project/benefits-wind-and-transmission-pjm>

¹²³ Karla Walter, Trevor Higgins, Bidisha Bhattacharyya, Malkie Wall, and Rita Clifton. *Electric Vehicles Should Be a Win for American Workers*, (Sept, 23, 2020) available at <https://www.americanprogress.org/issues/economy/reports/2020/09/23/489894/electric-vehicles-win-american-workers/>

¹²⁴ General Services Administration. *FY20 Federal Fleet Open Data Visualization*, (2021) available at <https://d2d.gsa.gov/report/federal-fleet-open-data-visualization>

¹²⁵ Benjamin Preston. *EVs Offer Big Savings Over Traditional Gas-Powered Cars*, (Oct. 08, 2020) available at <https://www.consumerreports.org/hybrids-evs/evs-offer-big-savings-over-traditional-gas-powered-cars/>

¹²⁶ *Id.*

¹²⁷ *Id.*

C. Renewable Electricity & Vehicle Electrification is Both Technically Feasible Today and Economically Advantageous in All Time Frames

GSA currently consumes nearly 4.7 million kilowatt hours (kWh) of renewable electricity or enough to power 8.6% of its total electric energy needs.¹²⁸ This total accounts for energy supplied by onsite production, renewable energy certificates, offsite production, and energy produced on federal or Indian land. There are over 3,000 solar photovoltaic (PV) systems installed on federal property with onsite capacity increasing nearly tenfold in the last decade (see Table 2).¹²⁹ Solar electricity purchases have also increased by a factor of 10. Onsite wind energy development has proceeded more slowly, likely due to space limitations, but wind electricity purchases have more than doubled over the last decade. Many GSA-owned buildings are currently receiving a significant portion of their power from renewable energy.

Table 2. Comprehensive Annual Energy Data and Sustainability Performance¹³⁰

Type	Source	MWh By Fiscal Year (FY 2010)	MWh By Fiscal Year (FY2020)
Government-Wide Agency-Owned Renewable Electric Energy	Solar Photovoltaic	70,488.2	680,455.9
	Wind	59,265.8	76,141.2
Government-Wide Renewable Electricity Purchases and Remote Agency Owned (Off-Site)	Solar Photovoltaic	4,235.4	39,368.9
	Wind	206,780.7	414,660.4

For, example, the GSA-owned Ted Weiss Federal Building showcases the feasibility of 100 percent renewable electricity. The 30-story 1.3 million square foot building in lower Manhattan is used primarily as an office space. In addition to energy efficiency measures, the Ted Weiss Federal Building is powered by 100 percent renewable energy.¹³¹ This is done primarily by

¹²⁸ Agency renewable electric energy consumption is submitted to DOE-FEMP through Annual Energy Data Reports. Details and background data can be found on FEMP's Comprehensive Annual Energy Data and Sustainability Performance data site: https://www.sustainability.gov/government_data.html#renewable

¹²⁹ General Services Administration, Public Buildings Service. *PV Resilience: Addressing Weather Vulnerabilities*, (May 2021) available at <https://www.gsa.gov/cdnstatic/047-GPG%20Findings%20PV%20Resilience.pdf>

¹³⁰ U.S. Department of Energy, Federal Energy Management Program. *Comprehensive Annual Energy Data and Sustainability Performance (2021)* available at <https://ctsedweb.ee.doe.gov/Annual/Report/RenewableEnergyElectricByType.aspx>

¹³¹ U.S. Department of Energy, Federal Energy Management Program. *UESC Success Story: GSA And Consolidated Edison's Strong Partnership Has Many Rewards*, (July 2009) available at <https://www.nrel.gov/docs/fy09osti/46308.pdf>

purchasing green power from wind farms in upstate New York through Con Edison’s retail access and deregulation program.¹³² The GSA-owned Terry Sanford Building in North Carolina installed a 560kW solar array on 59,000 square feet of previously unused roof space, which now reduces the building’s annual grid load by over 17%.¹³³ The Denver Federal Center located in Jefferson County, Colorado has installed three solar parks and photovoltaic panels on three building rooftops and four carports, which provides about 22 percent of the campus’ electrical power requirements.¹³⁴ Pembina Land Port of Entry in North Dakota fully powers its main station house from a one megawatt (MW) dual blade wind turbine that was constructed back in 2012.¹³⁵

Similarly, federal buildings in Rapid City, South Dakota and Cheyenne Wyoming receive nearly 75 percent of their energy from just 21 wind turbines located just west of Cheyenne at the Corriedale Wind Energy Project owned by Black Hills Energy.¹³⁶ All five of the Federal District buildings in downtown Denver currently get about 20 percent of their power from a 50MW solar energy installation through Xcel Energy’s Renewable Energy Connect Program.¹³⁷ Phase two is currently in progress with plans to increase the amount of solar energy provided to 80 percent.¹³⁸ The Wayne N. Aspinall Federal Building and U.S. Courthouse located in Grand Junction, Colorado installed photovoltaic panels on the roof which provides enough energy to power the building during peak demand.¹³⁹ The building is the first GSA-owned site to be designated as a net-zero building—meaning it produces as much energy on-site as it consumes over the course of one year—and has since been listed on the National Register of Historic Places.¹⁴⁰

In Washington, DC, GSA owns 9 buildings with solar installations ranging from 29-495 kW in size.¹⁴¹ Three of these buildings, the GSA Headquarters Building, the Ronald Reagan Building and International Trade Center, Wilbur J. Cohen Federal Building were outfitted with solar photovoltaic cells as part of the Capital Solar Challenge, which was launched by the White

¹³² *Id.*

¹³³ Standard Solar. GSA’s Leadership in Energy Management is on Display in North Carolina, (May 13, 2021) available at <https://standardsolar.com/project/general-services-administration-terry-sanford-building/>

¹³⁴ U.S. General Services Administration. Renewable Energy Not New to Region 8, (April 21, 2021) available at <https://www.gsa.gov/about-us/regions/welcome-to-the-rocky-mountain-region-8/region-8-newsroom/feature-stories/renewable-energy-not-new-to-region-8-04212021>

¹³⁵ *Id.*

¹³⁶ *Id.*

¹³⁷ *Id.*

¹³⁸ *Id.*

¹³⁹ U.S. General Services Administration. Wayne N. Aspinall Federal Building and US Courthouse, (2021) available at <https://www.gsa.gov/about-us/regions/welcome-to-the-rocky-mountain-region-8/buildings-and-facilities/colorado/wayne-n-aspinall-federal-building-and-us-courthouse>

¹⁴⁰ *Id.*

¹⁴¹ U.S. General Services Administration FOIA Requester Service Center. Request Number GSA-2021-000381[Subject: Solar Panels and D.C. Federal Buildings]. (Obtained under the Freedom of Information Act from U.S. Information Agency; requested as “Solar Panels and D.C. Federal Buildings” Dec. 15, 2020; received Mar. 31, 2021).

House in April 2014 and directed federal agencies and military installations to identify opportunities to deploy solar renewable energy at federal locations across the National Capital Region.¹⁴² GSA awarded a contract to WGL for the construction of rooftop photovoltaic arrays.¹⁴³ The contract is under a 10-year base plus 10-year option power purchase agreement. WGL will be responsible for design, construction, ownership, and operation and maintenance of the systems.¹⁴⁴

Despite this progress, there is much room for continued growth especially as renewable energy is more affordable, accessible, and prevalent in the United States than ever before. In the past decade, solar has experienced an annual growth rate of nearly 42% and in 2020, 43% of all new electric capacity added to the grid came from solar.¹⁴⁵ Overall capacity has grown from 0.34 GW in 2008 to over 100 gigawatts (GW) today— enough to power 18 million homes.¹⁴⁶ Today, just over 3% of U.S. electricity comes from solar energy in the form of solar PV and concentrating solar-thermal power (CSP).¹⁴⁷ Since 2014, the average cost of solar PV panels has dropped nearly 70% while CSP fell by 50% making them economically competitive with traditional fossil energy sources.¹⁴⁸ “The strategic engineering of solar energy technologies—from individual rooftop modules to large solar energy power plants—can confer significant synergistic outcomes across industrial and ecological boundaries.”¹⁴⁹ For example, the technical feasibility of solar has advanced such that the National Renewable Energy Laboratory estimates that PV panels installed on only 22,000 square miles of the nation’s total land area could potentially supply enough energy to power the entire country (assuming no negative impacts to public land

¹⁴² The White House, Office of the Press Secretary. Building on Progress – Supporting Solar Deployment and Jobs, (April 17, 2014) available at <https://obamawhitehouse.archives.gov/the-press-office/2014/04/17/fact-sheet-building-progress-supporting-solar-deployment-and-jobs>

¹⁴³ WGL Energy. WGL Energy Wins GSA Capital Solar Challenge, (Feb. 4, 2016) available at https://www.wglenergy.com/press-room/2016/release_129

¹⁴⁴ *Id.*

¹⁴⁵ Solar Energy Industries Association. Solar Industry Research Data, (2021) available at <https://www.seia.org/solar-industry-research-data>.

¹⁴⁶ *Id.*

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ Rebecca Hernandez et al., *Techno-ecological synergies of solar energy for global sustainability*, 2 Nature Sustainability 560-68 (2019) (“Here, we propose techno–ecological synergy (TES), a framework for engineering mutually beneficial relationships between technological and ecological systems, as an approach to augment the sustainability of solar energy across a diverse suite of recipient environments, including land, food, water, and built-up systems. We provide a conceptual model and framework to describe 16 TESs of solar energy and characterize 20 potential techno–ecological synergistic outcomes of their use. For each solar energy TES, we also introduce metrics and illustrative assessments to demonstrate techno–ecological potential across multiple dimensions. The numerous applications of TES to solar energy technologies are unique among energy systems and represent a powerful frontier in sustainable engineering to minimize unintended consequences on nature associated with a rapid energy transition.”). <https://www.nature.com/articles/s41893-019-0309-z>

values).¹⁵⁰ The number of jobs the industry supports has increased by over 167% in the past decade to over 230,000 workers.¹⁵¹

Similarly, the amount of wind electricity generation has grown significantly in the past 30 years. Annual U.S. electricity generation from wind energy increased from about 6 billion kilowatt-hours (kWh) in 2000 to about 338 billion kWh in 2020.¹⁵² In 2020, wind energy accounted for nearly 8.4% of total U.S. utility-scale electricity generation.¹⁵³ More than 9 GW of new capacity was added to the grid in 2019.¹⁵⁴ Onshore capacity has surpassed 100GW which is enough to power 28 million homes.¹⁵⁵ Currently, there are utility-scale wind plants in 41 states that have created more than 100,000 jobs for Americans.¹⁵⁶ Advances in wind energy technologies have enabled wind turbine prices to fall to \$700–\$850/kW.¹⁵⁷ The average cost of wind installations in 2019 came in at \$1,440/kW, a decrease of over 40 percent since its peak in 2009 and 2010.¹⁵⁸

Electric vehicles (EVs) have also seen a spike in growth. EV sales represented 2.6% of global car sales in 2019 or a 40% year-on-year increase.¹⁵⁹ Since 2010 the number of electric cars on the roads saw a 400-fold increase from just 17,000 to 7.2 million.¹⁶⁰ Of these more than 244,000 were sold in the United States in 2019, and that number has already doubled nationwide in 2021.¹⁶¹ The associated charging infrastructure also expanded to about 7.3 million chargers worldwide as of 2019, and is still rapidly rising.¹⁶² In addition to cars about half a million electric buses are in use while sales of electric trucks hit a record high of 6000 in 2019.¹⁶³ The electrification of shipping operations is increasingly becoming more common while aviation is

¹⁵⁰ Sean Ong, Clinton Campbell, Paul Denholm, Robert Margolis, and Garvin Heath. *Land-Use Requirements for Solar Power Plants in the United States*, (June 2013) at 18-19, available at <https://www.nrel.gov/docs/fy13osti/56290.pdf>.

¹⁵¹ The Solar Foundation, the Solar Energy Industries Association, and Interstate Renewable Energy Council. *National Solar Jobs Census 2020*, (Jan. 11, 2021) available at <https://irecusa.org/resources/national-solar-jobs-census-2020/>.

¹⁵² U.S. Department of Energy, Wind Energy Technologies Office. *History of U.S. Wind Energy*. (2021) available at <https://www.energy.gov/eere/wind/history-us-wind-energy>.

¹⁵³ *Id.*

¹⁵⁴ Lawrence Berkley National Laboratory. *Wind Technologies Market Report*, (2020) available at <https://emp.lbl.gov/wind-technologies-market-report>.

¹⁵⁵ U.S. Energy Information Administration. *Electricity generation from wind*, (Mar. 17, 2021) available at <https://www.eia.gov/energyexplained/wind/electricity-generation-from-wind.php>

¹⁵⁶ *Id.*

¹⁵⁷ Lawrence Berkley National Laboratory. *Wind Technologies Market Report*, (2020) available at <https://emp.lbl.gov/wind-technologies-market-report>.

¹⁵⁸ *Id.*

¹⁵⁹ International Energy Agency. *Global EV Outlook 2019*, (2019), available at <https://www.iea.org/reports/global-ev-outlook-2019#key-findings>.

¹⁶⁰ *Id.*

¹⁶¹ *Id.* See also https://www.veloz.org/wp-content/uploads/2021/11/Q3_2021_Dashboard_PEV_Sales_veloz-2.pdf

¹⁶² International Energy Agency. *Global EV Outlook 2019*, (2019), available at <https://www.iea.org/reports/global-ev-outlook-2019#key-findings>.

¹⁶³ *Id.*

gradually pursuing electrification options.¹⁶⁴ The cost of EV batteries has decreased by more than 85% from USD \$1100/kW in 2010 down to USD \$156/kW.¹⁶⁵ Annual passenger EV sales are expected to reach 8.5 million in 2025, 26 million in 2030, and 54 million by 2040.¹⁶⁶

Although this progress is significant, much more ambitious goals are needed in order to meet the clean energy goals outlined in Biden’s executive order. For example, the number of new solar installations will need to increase from less than 20 GW in 2020 to more than 80 GW by 2030, with the goal of reaching a total capacity of 600 GW by the end of the decade.¹⁶⁷ According to a study from Standard University an additional 484,200 5 MW wind turbines (when paired with solar, hydrothermal, and geothermal sources) will need to be installed in order to achieve a 100% renewable grid.¹⁶⁸ The electric vehicle industry estimates that an investment of \$87 billion in charging infrastructure over the next 10 years is needed to get the U.S. on the path to 100 percent EV sales by 2035.¹⁶⁹ This can be accomplished through a strong mix of federal policies and incentives matched with private sector investments.

D. The Use of Renewable Energy and the Electrification of the Federal Fleet Furthers GSA’s Mission, Vision and Goals

GSA has long recognized the benefits of sustainable development and has incorporated these principles into its mission, vision, and strategic goals. GSA defines their mission and vision as fostering a “high performing” and “effective, sustainable ... government.”¹⁷⁰ GSA’s strategic goals define how it intends to support these objectives through fostering “a green proving ground that demonstrates the viability of new green technology and practices. GSA will test innovative solutions in its own operations and offer those solutions to other agencies through its governmentwide contracting and policymaking authorities.”¹⁷¹ In addition, “GSA will lead with its expertise to drive the market for high-performance green products, services and solutions that support its customer agencies’ missions and meet or exceed their sustainability goals.”¹⁷² GSA’s

¹⁶⁴ *Id.*

¹⁶⁵ *Id.*

¹⁶⁶ BloombergNEF. Electric Vehicle Outlook 2020, (2020), available at <https://about.bnef.com/electric-vehicle-outlook/>.

¹⁶⁷ Solar Energy Industries Association. Solar Industry Research Data, (2021) available at <https://www.seia.org/solar-industry-research-data>.

¹⁶⁸ Mark Z. Jacobson, Mark A. Delucchi, Mary A. Cameron, and Bethany A. Frewa. *Low-cost solution to the grid reliability problem with 100% penetration of intermittent wind, water, and solar for all purposes*. Proceedings of the National Academy of Sciences of the United States of America, (Dec. 8, 2015) at 15063, available at <http://web.stanford.edu/group/efmh/jacobson/Articles/I/CombiningRenew/CONUSGridIntegration.pdf>

¹⁶⁹ Atlas Public Policy. U.S. Passenger Vehicle Electrification Infrastructure Assessment, (Apr. 21, 2021) at 9, available at https://atlaspolicy.com/wp-content/uploads/2021/04/2021-04-21_US_Electrification_Infrastructure_Assessment.pdf

¹⁷⁰ U.S. General Services Administration. GSA’s Mission, Vision and Goals, (2021) available at <https://www.gsa.gov/node/78602>.

¹⁷¹ *Id.*

¹⁷² *Id.*

high-performance goals include reducing its “consumption of resources” and providing its “Federal agency customers with solutions that help them manage and reduce their consumption.”¹⁷³

In its Fiscal Year 2022 (FY22) Annual Performance Plan and Report, GSA defined a series of more granular strategic goals that in addition its core tenants outlined above could easily be realized through the expanded use of renewable energy and electric vehicles. In FY22 and beyond GSA has prioritized saving taxpayer dollars through better real estate portfolio management.¹⁷⁴ To realize this objective GSA will promote investments that optimize federally owned assets, lower costs associated with their leased portfolio, and increase sales of under-utilized federally owned property.¹⁷⁵ Renewable energy systems and electric vehicles have significantly lower operating and maintenance costs when compared to traditional fossil power plants.¹⁷⁶ Additionally, targeted investments in on site renewable energy generation can increase land utilization while also generating a return.¹⁷⁷ Thus, a firm commitment to a government wide transition to renewable energy and electric vehicles will allow GSA to deliver on their mission and achieve their strategic goals.

In fact, GSA has already made progress on these procurement efforts and has plans to continue this momentum. According to its 2020 Sustainability Report and Implementation Plan, GSA continues to prioritize the installation of new on-site renewable energy generation as part of new construction and major modernization projects.¹⁷⁸ In FY 2019 16.4% of its renewable energy came from power purchase agreements and on-site generation while the remaining came from off-site generators through long-term supply agreements.¹⁷⁹ GSA also awarded three additional power supply contracts in FY19 that will bring their total renewable power usage up to 11% in the near future.¹⁸⁰ In FY 2020 and FY 2021, GSA expects to add at least three on-site generation projects totaling a 467 kW capacity.¹⁸¹

GSA also prioritizes cost-effective acquisition of low greenhouse gas (GHG), hybrid, electric, and alternative-fuel vehicles, vehicle charging systems, and management and maintenance services.¹⁸² GSA has reduced its internal fleet petroleum consumption by over 59% since

¹⁷³ *Id.*

¹⁷⁴ U.S. General Services Administration. *FY 2022 Annual Performance Plan*, (Jun 6, 2021) at 14, available at https://www.gsa.gov/cdnstatic/17_FY_2022_GSA_Annual_Performance_Plan_Final_1.pdf.

¹⁷⁵ *Id.*

¹⁷⁶ *See infra* notes 78 & 85.

¹⁷⁷ *See infra* note 37.

¹⁷⁸ U.S. General Services Administration. *Sustainability Report and Implementation Plan 2020*, (June 2020) at 7, available at <https://www.sustainability.gov/pdfs/gsa-2020-sustainability-plan.pdf>.

¹⁷⁹ *Id.*

¹⁸⁰ *Id.*

¹⁸¹ *Id.*

¹⁸² *Id.* at 13.

2005.¹⁸³ As of FY 2019, GSA’s internal fleet of 952 vehicles included 26 battery electric vehicles (2.7%), 288 hybrid electric vehicles (30.3%), 191 low-GHG gasoline vehicles (20.1%), and 338 E-85 vehicles (35.5%).¹⁸⁴ In addition to this GSA purchased and installed 53 charging stations.¹⁸⁵ Moving forward GSA intends to maintain their open contract solicitation practices in order to facilitate the procurement of zero emission vehicles.¹⁸⁶ Although GSA has made significant progress on their internal use fleet much more significant action is needed to convert the government’s full fleet of 650,000 vehicles. GSA’s efforts demonstrate that it is in a prime position to lead federal efforts to reduce the footprint of the government’s energy and vehicle portfolio.

GSA also has the expertise and infrastructure to demonstrate the viability of novel renewable energy technologies. In 2011, GSA established the Green Proving Ground (GPG) program that evaluates next generation building technologies on their own buildings in real world settings. Since the program’s inception they have deployed 20 different technologies which have saved taxpayers \$15 million annually.¹⁸⁷ In fact, GSA used the GPG program to assess the performance of five different PV systems installed at the Bean Federal Center in Indianapolis, Indiana to help meet its EPC and EISA statutory goals for improving energy performance and reducing GHG emissions.¹⁸⁸ GSA is currently in the process of deploying and validating a GPG technology called Advanced WindWall™—a novel, wind-based, renewable-energy technology—at the Sam Nunn Federal Building in Atlanta, Georgia.¹⁸⁹

On April 21, 2021, Acting Administrator Katy Kale announced GSA’s commitment to 100 percent renewable electricity sources for the federal real estate portfolio by 2025.¹⁹⁰ The GSA has also taken the position that “as America’s largest public real estate organization, GSA has a

¹⁸³ *Id.*

¹⁸⁴ *Id.* Petitioners note that using E-85 is inconsistent with a fleet of zero-emission vehicles. E-85 is a false climate solution. *See, e.g.,* C. Ford Runge, *The case against more Ethanol: It’s Simply Bad for the Environment*, YaleEnvironment360 (May 25, 2016) https://e360.yale.edu/features/the_case_against_ethanol_bad_for_environment

¹⁸⁵ U.S. General Services Administration. *Sustainability Report and Implementation Plan 2020*, (June 2020) at 13.

¹⁸⁶ *Id.*

¹⁸⁷ U.S. General Services Administration. About Green Proving Ground (GPG), (2021) available at <https://www.gsa.gov/governmentwide-initiatives/climate-action-and-sustainability/emerging-building-technologies/about-green-proving-ground-gpg>

¹⁸⁸ *See generally* General Services Administration, Public Buildings Service. *Photovoltaic System Performance*. (December 2012) available at https://www.gsa.gov/cdnstatic/GPG_Findings_005-PV_System_Performance.pdf

¹⁸⁹ U.S. Department of Energy. Office of Energy Efficiency & Renewable Energy. Energy Department Accelerates Energy Efficiency and Operational Resilience Advancements at Federal Facilities via Performance Contracts, (December 4, 2020) available at <https://www.energy.gov/eere/articles/energy-department-accelerates-energy-efficiency-and-operational-resilience>

¹⁹⁰ U.S. General Services Administration. GSA Commits to Renewable Energy, Pledging 100 Percent Renewable Electric Resources by 2025, (April 22, 2021) available at <https://www.gsa.gov/about-us/newsroom/news-releases/gsa-commits-to-renewable-energy-pledging-100-percent-renewable-electric-resources-by-2025-04222021>. In addition to omitting mention of GSA’s motor vehicle fleet or GSA’s renewable energy leasing capacity, the exact type of “renewable” energy is not clear from this GSA press release.

special responsibility to lead in building sustainably and meet federal mandates, including energy policies and executive orders.”¹⁹¹ By following through on President Biden’s recent executive order, GSA has the ideal opportunity to realize its mission to “deliver the best value in real estate, acquisition, and technology services to government and the American people.”¹⁹²

VII. Conclusion

Federal procurement can be a powerful tool to drive greater adoption of greenhouse gas-free renewable energy sources across the United States. As the nation’s largest power purchaser, the federal government affects the types and cost of power available for the entire country and can advance the market for emissions-free electricity. In line with the January 27th Executive Order and the effort underway to develop a comprehensive plan to revitalize the Federal Government’s sustainability efforts, GSA should utilize its broad authority to issue a rule to commit the federal real estate portfolio to 100 percent renewable greenhouse gas pollution free electricity sources by 2025 and transition the entire federal vehicle fleet to electric zero-emission vehicles by 2035. In doing so the federal government and taxpayers stand to save millions along with spurring significant economic development, all while preventing the most severe impacts of climate change— a strategy that is a win-win-win.

Respectfully,

/s/

William J. Snape, III
Center for Biological Diversity
American University, Washington College of Law

Dated: December 2, 2021

¹⁹¹ U.S. General Services Administration. *Assessing Green Building Performance: A Post Occupancy Evaluation of 12 GSA Buildings*. (2008) at 3, available at https://www.gsa.gov/cdnstatic/GSA_AssessGreen_white_paper.pdf

¹⁹² U.S. General Services Administration. *GSA's Mission, Vision and Goals*, (2021) available at <https://www.gsa.gov/node/78602>.

APPENDIX -- PROPOSED RULE

The General Services Administration proposes amending 48 CFR part 23 as set forth below:

Subpart 23.2 - Energy and Water Efficiency and Renewable Energy

1. Redesignate section 23.201 as section 23.202.
2. Add a new section 23.201 to read as follows:

23.201 Definition.

As used in this subpart-

Renewable energy is defined as energy that is produced by a resource that generates zero greenhouse gas emissions. Renewable energy does not include nuclear, biomass, or natural gas resources.

24/7 renewable energy is defined as running operations with renewable energy on an hour-by-hour basis. This does not include purchasing credits for renewable energy.

3. In section 23.202 “Authorities” amend the list of authorities to include (i) Executive Order 14008, of January 27, 2021, Tackling the Climate Crisis at Home and Abroad.
4. Redesignate section 23.202 as section 23.203.
5. Amend section 23.203 “Policy” by adding the policy statement for renewable energy. The additions read as follows:

(c) *Renewable Energy*. In accordance with Executive Order 14008, dated January 27, 2021, Tackling the Climate Crisis at Home and Abroad, and to address the serious global threat posed by climate change by limiting global warming to 1.5°C, it is the policy and objective of the Government to use all available procurement authorities to achieve or facilitate a 24/7 renewable greenhouse gas pollution-free electricity sector, including but not limited to all GSA federal buildings, no later than 2025.
6. Redesignate section 23.203 as section 23.204.
7. Redesignate section 23.204 as section 23.205.
8. Redesignate section 23.205 as section 23.206.

9. Redesignate section 23.206 as section 23.207.

10. Add a new section 23.208 to read as follows:

23.208 Renewable Energy Procurement

When acquiring utility services, agencies shall utilize all available procurement authorities and leverage private sector financing to achieve a 24/7 100% renewable federal electricity portfolio by 2025.

11. Add a new Subpart to read:

Subpart 23.12 - Contracting for Zero Emission Vehicles

12. Add a new section 23.1201 to read as follows:

23.1201 Purpose.

This subpart implements the requirements of the Executive Order 14008, dated January 27, 2021 (86 FR 7619), Tackling the Climate Crisis at Home and Abroad.

13. Add a new section 23.1202 to read as follows:

23.1202 Applicability.

This subpart applies to all solicitations, contracts, and leases for motor vehicles.

14. Add a new section 23.1203 to read as follows:

23.1203 Definitions.

Motor vehicle means an item of equipment, mounted on wheels and designed for highway and/or land use, that-

- (1) Derives power from a self-contained power unit; or
- (2) Is designed to be towed by and used in conjunction with self-propelled equipment.

Zero-emission vehicle means a motor vehicle that uses 100% renewable energy.

15. Add a new section 23.1204 to read as follows:

23.1204 Policy.

(a) In accordance with Executive Order 14008, dated January 27, 2021, Tackling the Climate Crisis at Home and Abroad and to address the serious global threat posed by climate change by limiting global warming to 1.5°C, it is the policy and objective of the Government to use all available procurement authorities to ensure the entire federal motor vehicle fleet, including motor vehicles of the United States Postal Service under GSA jurisdiction, transitions to 75% zero-emission light duty motor vehicles by 2027, 90% zero-emission light duty motor vehicles by 2030, and 100% zero-emission light duty motor vehicles by 2035. For medium and heavy-duty motor vehicles, the transition objectives shall be 75% zero-emission motor vehicles by 2035, and 100% zero-emission motor vehicles by 2045.

(b) Agencies shall ensure all applicable electric vehicle supply equipment is certified under the Energy Star program established by section 324A of the Energy Policy and Conservation Act (42 U.S.C. 6294a).

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