NOTE

Incorporating the Social Cost of Greenhouse Gases into the Federal Procurement Lifecycle

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ABSTRACT

Federal procurement has an important role to play in mitigating and adapting to climate change. The massive scale of the government's purchasing power—more than $600 billion in Fiscal Year 2022—puts the federal government in a unique position to mitigate anthropogenic climate change by purchasing and creating markets for products and services with lower greenhouse gas emissions. The Biden Administration has recognized the potential climate impact of federal procurement, but policy direction alone will fail to curb anthropogenic contributions to rising global temperatures without specific and mandatory implementation schemes.

To ensure prioritization of low emissions solutions, the government must overcome the temptations of low up-front purchase prices and internalize the less obvious costs associated with greenhouse gas emissions. Two methodologies have developed which, when combined, can do exactly that: (1) greenhouse gas accounting and (2) the social cost of greenhouse gases ("SC-GHG"). First, greenhouse gas accounting has developed for tracking and reporting firms' greenhouse gas emissions, and it can be used by prospective offerors to estimate the total greenhouse gas emissions associated with their

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government contract proposals. Second, the SC-GHG metric quantifies the cost to society, in dollars, of one metric ton of greenhouse gas emissions. If prospective offerors use greenhouse gas accounting methodologies to estimate the emissions associated with their proposals, purchasing agencies can then apply the SC-GHG metric to those estimates to quantify—and therefore compare—the expected social cost of greenhouse gas emissions of each proposal.

This Note advocates for wielding the federal government's purchasing power to mitigate climate change by accounting for the social cost of greenhouse gases at four key stages of the federal procurement process: (1) acquisition planning, (2) solicitation, (3) evaluation, and (4) quality assurance. To prevent potential burdens on low-value transactions with smaller potential impacts on climate change, this Note further suggests limiting mandatory incorporation of the social cost of greenhouse gases to high-value contracts above a specified dollar threshold.

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INTRODUCTION

One week into his tenure as President of the United States, President Biden signed Executive Order 14,008, "Tackling the Climate Crisis at Home and Abroad," which in part called for the prioritization of environmental sustainability in the federal government's acquisition of goods and services.[1] Among the executive order's specific directives, President Biden called for the electrification of government vehicle fleets, including that of the United States Postal Service ("USPS").[2] One month later, USPS entered into a multi-billion-dollar ten-year contract to replace its decades-old fleet of over 200,000 mail delivery vehicles with a Next Generation Delivery Vehicle ("NGDV") developed by Oshkosh Defense, LLC ("Oshkosh").[3] Critically, however, USPS rejected the vendor that offered a fully electric prototype[4] and selected Oshkosh's proposal for an NGDV powered by internal combustion of fossil fuels with the option to transition to electric bat-

1 Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7623 (Jan. 27, 2021) ("It is the policy of my Administration to lead the Nation's effort to combat the climate crisis . . . by aligning the management of Federal procurement . . . to support robust climate action.").

2 *Id.* at 7624 ("The plan shall aim to use . . . all available procurement authorities to achieve or facilitate . . . clean and zero-emission vehicles for Federal, State, local, and Tribal government fleets, including vehicles of the United States Postal Service.").

3 *Next Generation Delivery Vehicle (NGDV) Contract Award*, SAM.GOV (Feb. 23, 2021) [hereinafter *Contract Award*], https://sam.gov/opp/1e56c386808444d886124fc1927f4eb0/view [https://perma.cc/CS3J-P3YH] (awarding the contract and announcing an initial commitment of $482 million); *see also Oshkosh Defense Receives First Order for Next Generation Delivery Vehicle Fleet*, OSHKOSH (Mar. 24, 2022), https://www.oshkoshcorp.com/en/news/3-24-22-first-ngdv-fleet-order [https://perma.cc/6NY4-CPLK] ("The initial order is for 50,000 NGDVs and is valued at $2.98 Billion."); Anna Phillips & Jacob Bogage, *Biden Officials Push to Hold Up $11.3 Billion USPS Truck Contract, Citing Climate Change*, WASH. POST (Feb. 2, 2022), https://www.washingtonpost.com/climate-environment/2022/02/02/usps-trucks-epa-climate-change [https://perma.cc/NKW3-46G3] (estimating an overall contract value of $11.3 billion); *U.S. Postal Service Awards Contract to Launch Multi-Billion-Dollar Modernization of Postal Delivery Vehicle Fleet*, U.S. POSTAL SERV. (Feb. 23, 2021), https://about.usps.com/newsroom/national-releases/2021/0223-multi-billion-dollar-modernization-of-postal-delivery-vehicle-fleet.htm [https://perma.cc/PZ8E-MH9G].

4 *See* Complaint at 2, Workhorse Grp. Inc. v. United States, No. 1:21-cv-01484 (Fed. Cl. June 28, 2021) (protesting the award of the NGDV contract to Oshkosh), *withdrawn*, (Sept. 14, 2021).

tery drivetrains in the future.[5] The USPS, under direction from the President to electrify its fleet, chose to replace the country's largest vehicle fleet[6] with a primarily fossil-fuel-driven solution. The procurement process failed to reflect the Administration's prioritization of "robust climate action."[7]

Climate change presents a serious problem with broad impacts in the United States and globally. Scientific consensus has concluded that human activity is a significant driver of the ongoing changes in Earth's climate systems.[8] In particular, greenhouse gas emissions from burning fossil fuels constitute the primary anthropogenic driver of climate change by substantially increasing the concentration of greenhouse gases in the atmosphere, thereby raising average global temperatures.[9] Because human activity contributes to the intensifica-

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5 *Id.* at 3; Motion to Dismiss Plaintiff's Complaint at 4, Workhorse Grp. Inc. v. United States, No. 1:21-cv-01484 (Fed. Cl. July 6, 2021) ("In contrast to Workhorse's all-electric approach, Oshkosh proposed a more flexible approach that utilized an internal-combustion-engine vehicle in the near term with the option to transition to an electric vehicle in the medium to long term."). USPS has stated that it plans to place ten percent of its orders under the contract for battery electric versions of the NGDV, but a ninety percent internal combustion engine fleet falls far short of the fully electric solutions proposed by other offerors and contemplated by President Biden's executive orders. *Compare* U.S. Postal Serv., Record of Decision and Record of Environmental Consideration: Next Generation Delivery Vehicle Acquisitions 1, app. A at 3-1 (2022) [hereinafter Record of Decision], https://uspsngdveis.com/documents/
USPS%20NGDV%20Acquisitions%20NEPA%20Record%20of%20Decision_2.23.22.pdf [https://perma.cc/L56F-28E3], *with* Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7624 (Jan. 27, 2021).

6 USPS Off. of Inspector Gen., Delivery Vehicle Acquisition Strategy 1, 4 (2020), https://www.uspsoig.gov/sites/default/files/document-library-files/2020/19-002-R20.pdf [https://perma.cc/L3CM-4T4U].

7 Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7624 (Jan. 27, 2021). President Biden has passed multiple climate-related executive orders since Executive Order 14,008, including a December 2021 order that directly addresses the acquisition of zero-emissions vehicle fleets. *See* Exec. Order No. 14,057, 86 Fed. Reg. 70,935, 70,935 (Dec. 8, 2021) ("Through a coordinated whole-of-government approach, the Federal Government shall use its scale and procurement power to achieve . . . 100 percent zero-emission vehicle acquisitions by 2035, including 100 percent zero-emission light-duty vehicle acquisitions by 2027."); *see also* Exec. Order No. 14,037, 86 Fed. Reg. 43,583, 43,583 (Aug. 5, 2021) ("America must lead the world on clean and efficient cars and trucks."). The consistent messaging is encouraging but transitioning from policy priority to practice still requires clear implementation mechanisms.

8 *See* IPCC Working Grp. 1, Climate Change 2021: The Physical Science Basis, Summary for Policymakers SPM-1, SPM-5 (2021) [hereinafter Physical Science Basis] ("It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred.").

9 *See, e.g.*, *Overview of Greenhouse Gases*, EPA (May 16, 2022), https://www.epa.gov/ghgemissions/overview-greenhouse-gases [https://perma.cc/WD7U-3BV8]. "Anthropogenic"—meaning "caused or produced by humans"—is commonly used in climate change literature to differentiate between human causes and natural climate variations. *Anthropogenic*, Diction-

tion and acceleration of climate change, human activity also has the potential to mitigate that intensification and acceleration.[10]

The federal government, as the single largest purchaser of goods and services in the world, is uniquely positioned to mitigate anthropogenic climate change.[11] To do so, the federal government can leverage its procurement system to generate two interrelated benefits: first, by purchasing goods and services that emit fewer greenhouse gases throughout their lifecycle, the government will reduce its direct contributions to climate change; second, by creating demand for low-emissions solutions, the government will indirectly increase the development and market-wide availability of environmentally sustainable goods and services.[12] Achieving both benefits will require consistent prioritization of low-emissions solutions across agencies, which will in turn require a broadly applicable metric for tracking greenhouse gas emissions that can be incorporated throughout the legal frameworks that regulate public procurement at the federal level.[13]

ARY.COM, https://www.dictionary.com/browse/anthropogenic [https://perma.cc/F8BE-LFK9]; *see, e.g.*, Cynthia Rosenzweig et al., *Attributing Physical and Biological Impacts to Anthropogenic Climate Change*, 453 NATURE 353, 353 (2008).

10 *See* IPCC WORKING GRP. III, CLIMATE CHANGE 2022: MITIGATION OF CLIMATE CHANGE, SUMMARY FOR POLICYMAKERS (2022) [hereinafter MITIGATION OF CLIMATE CHANGE] (synthesizing and summarizing the most current scientific data on the effects of human-led climate change mitigation efforts).

11 *See, e.g.*, *Selling Greener Products and Services to the Federal Government*, EPA (Apr. 28, 2022), https://www.epa.gov/sustainable-marketplace-greener-products-and-services/selling-greener-products-and-services-federal [https://perma.cc/5TAQ-86VV].

12 *See* Exec. Order No. 14,057, 86 Fed. Reg. 70,935, 70,935 (Dec. 8, 2021) ("As the single largest land owner, energy consumer, and employer in the Nation, the Federal Government can catalyze private sector investment and expand the economy and American industry by transforming how we build, buy, and manage electricity, vehicles, buildings, and other operations to be clean and sustainable.").

13 The Federal Acquisition Regulation ("FAR"), located in Title 48 of the Code of Federal Regulations, is the principal document regulating the procurement process for federal executive agencies in the United States. *See* FAR 1.101; 48 C.F.R. ch. 1 (2021). Thirty executive agencies also have agency-specific regulations that supplement the FAR. *See, e.g.*, Defense Federal Acquisition Regulation Supplement ("DFARS"), 48 C.F.R. ch. 2 (2021) (establishing acquisition regulations specific to the Department of Defense); *see also Regulations*, ACQUISITION.GOV, https://www.acquisition.gov/content/regulations [https://perma.cc/YBC6-XLEA] (listing and providing links to all of the agency supplements to the FAR). The FAR expressly contemplates these agency-specific supplements and refers to the resulting combination of regulations as the Federal Acquisition Regulation System ("FAR System"). *See generally* FAR pt. 1 (providing general information about the FAR System, including the role of agency supplements). Note that the FAR System does not regulate USPS procurements. *7-7.1 Federal Laws Applicable to the Postal Service*, U.S. POSTAL SERV., https://about.usps.com/manuals/spp/html/spp7_035.htm [https://perma.cc/KP7B-VGD7] ("[T]he Postal Service is not subject to the FAR."). This Note does not offer a solution for USPS procurements but rather uses the high-profile NGDV acquisi-

Since 2009, an interagency working group has focused on developing just such a metric: SC-GHG.[14] The SC-GHG tool[15] quantifies—with a standardized, scientifically founded methodology—the social cost, in dollars, of one metric ton of greenhouse gas emissions.[16] Correspondingly, the private sector has developed and adopted methodologies for tracking and reporting greenhouse gas emissions.[17] Prospective offerors should use these greenhouse gas accounting methodologies to estimate the total expected emissions associated with products and services offered to the government. With those estimates, purchasing agencies will be able to multiply the expected tonnage of greenhouse gas emissions by SC-GHG multipliers to quantify the expected social cost of emissions associated with each proposed solution.

This Note advocates that the federal government should wield its unique power to mitigate climate change by accounting for the social cost of greenhouse gases—utilizing SC-GHG values in conjunction with mandatory greenhouse gas emissions estimates by offerors—at four key stages of the federal procurement process: (1) acquisition planning, (2) solicitation, (3) evaluation, and (4) quality assurance. To prevent undue burdens on low-value transactions with smaller potential impact on climate change, this Note further suggests limiting mandatory consideration of the social cost of greenhouse gases to high-value contracts above a specified dollar threshold.

Part I provides background information about the potential for federal public procurement to mitigate the progression of climate change and the procurement system's failure to live up to that potential so far. Part II addresses overcoming the barrier to sustainable procurement implementation created by the longstanding prioritization

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tion to demonstrate the stakes involved and the substantial impact that prioritization of cost over environmental impact can have in federal procurements.

14 *See generally* INTERAGENCY WORKING GRP. ON SOC. COST OF GREENHOUSE GASES, TECHNICAL SUPPORT DOCUMENT: SOCIAL COST OF CARBON, METHANE, AND NITROUS OXIDE INTERIM ESTIMATES UNDER EXECUTIVE ORDER 13990 (2021) [hereinafter IWG INTERIM ESTIMATES] (explaining the history and development of SC-GHG).

15 This Note refers repeatedly to both the SC-GHG tool and the social cost of greenhouse gases as a broader concept. All uses of "SC-GHG" in acronym form refer to the specific tool that quantifies the monetary value of one ton of greenhouse gases. All other uses of "social cost of greenhouse gases" refer to the broader concept of social impacts from greenhouse gas emissions.

16 IWG INTERIM ESTIMATES, *supra* note 14, at 2.

17 *See About Us*, GREENHOUSE GAS PROTOCOL, https://ghgprotocol.org/about-us [https://perma.cc/A38C-J4S9]; *see also Greenhouse Gas Reporting Program (GHGRP)*, EPA (Nov. 3, 2022), https://www.epa.gov/ghgreporting [https://perma.cc/XW35-8HTL] (providing a centralized location for greenhouse gas reporting data published for public availability every year).

of low up-front purchase prices. Finally, Part III discusses implementing mandatory consideration of the social cost of greenhouse gases in the federal procurement process and suggests considering a dollar threshold below which the proposed requirements do not apply.

I. The Underutilized Potential of the Federal Procurement System to Mitigate Climate Change

Climate change is increasing in severity and will continue to impact humanity for the foreseeable future.[18] The news broadcasts a seemingly continuous stream of devastating climate events in the United States and around the world.[19] Disaster-relief spending data and meta-analysis of climate impact studies corroborate the apparent intensification of climate change portrayed by the news.[20] In 2021, the United States experienced twenty separate billion-dollar weather and climate disasters, costing a total of $152.6 billion.[21] The costs of weather and climate disasters for the past five years total more than one-third of the combined disaster costs of the last forty-three years, accounting for inflation.[22]

The 2021 climate change assessment report by the United Nations Intergovernmental Panel on Climate Change ("IPCC")[23] underscores the scale and increasing intensity of climate change, in addition to es-

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18 *See generally* Physical Science Basis, *supra* note 8.

19 *See, e.g.*, Adam Wernick, *Climate Change Is Driving Extreme Weather Events Around the World in 2021*, The World (Sept. 6, 2021, 3:45 PM), https://theworld.org/stories/2021-09-06/climate-change-driving-extreme-weather-events-around-world-2021 [https://perma.cc/N5XT-9SZC]; Sarah Kaplan & Andrew Ba Tran, *Nearly 1 in 3 Americans Experienced a Weather Disaster This Summer*, Wash. Post (Sept. 4, 2021, 1:35 PM), https://www.washingtonpost.com/climate-environment/2021/09/04/climate-disaster-hurricane-ida [https://perma.cc/P2NH-Q98L]; Annabelle Timsit & Sarah Kaplan, *At Least 85 Percent of the World's Population Has Been Affected by Human-Induced Climate Change, New Study Shows*, Wash. Post (Oct. 11, 2021, 12:00 PM), https://www.washingtonpost.com/climate-environment/2021/10/11/85-percent-population-climate-impacts [https://perma.cc/7UWC-42YZ].

20 *See* Max Callaghan et al., *Machine-Learning-Based Evidence and Attribution Mapping of 100,000 Climate Impact Studies*, 11 Nature Climate Change 966, 966 (2021) ("[A]ttributable anthropogenic impacts may be occurring across 80% of the world's land area, where 85% of the population reside."); *Billion-Dollar Weather and Climate Disasters: Time Series*, Nat'l Oceanic & Atmospheric Admin. Nat'l Ctrs. for Env't Info., https://www.ncdc.noaa.gov/billions/time-series [https://perma.cc/AF7Q-L4TF].

21 *Billion-Dollar Weather and Climate Disasters: Time Series*, *supra* note 20. There were eighteen additional billion-dollar weather and climate disaster events in 2022. *Id.*

22 *Id.* The five-year cost average of such events has reached $157.6 billion per year. *Id.*

23 Since 1990, the IPCC has published a climate change assessment report every five to eight years that evaluates and synthesizes the most current scientific publications regarding the impacts and scientific basis of climate change. *About the IPCC*, IPCC, https://www.ipcc.ch/about [https://perma.cc/RW5H-RC6L]. In 2021 and 2022 the IPCC's working groups released their contributions for the IPCC's Sixth Assessment Report. Physical Science Basis, *supra* note 8; Mit-

tablishing the anthropogenic contributions to those changes.[24] The report highlights, for example, that "[h]uman influence has warmed the climate at a rate that is unprecedented in at least the last 2,000 years,"[25] resulting in "increases in the frequency and intensity of hot extremes, marine heatwaves, and heavy precipitation, agricultural and ecological droughts in some regions, [the] proportion of intense tropical cyclones, as well as reductions in Arctic sea ice, snow cover and permafrost."[26]

The primary anthropogenic driver of these changes is greenhouse gas emissions, specifically carbon dioxide ("CO_2") emitted from the burning of fossil fuels.[27] The main sources of human CO_2 emissions in the United States are transportation, electricity generation, and industry, together accounting for eighty percent of 2020 CO_2 emissions.[28]

Unfortunately, the magnitude and severity of anthropogenic climate change likely mean that individual action is insufficient.[29] Mitigating the society-wide impacts of climate change will require continued innovation from private industry and coordinated leadership and guidance from the government.[30]

This Part considers the potential role of federal public procurement in mitigating anthropogenic climate change, examines the failure of the government to fulfill that role, and addresses why such failures will likely continue without additional regulatory action.

A. The Potential Climate Impact of Federal Public Procurement

The federal procurement system's immense spending power is a key government tool for mitigating and adapting to climate change. The federal government spent more than $600 billion through con-

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IGATION OF CLIMATE CHANGE, *supra* note 10; IPCC WORKING GRP. II, CLIMATE CHANGE 2022: IMPACTS, ADAPTION AND VULNERABILITY (2022).

24 *See* PHYSICAL SCIENCE BASIS, *supra* note 8.

25 *Id.* at SPM-7.

26 *Id.* at SPM-19.

27 *Id.* at SPM-8, SPM-16, SPM-37; *Overview of Greenhouse Gases*, *supra* note 9.

28 *Overview of Greenhouse Gases*, *supra* note 9.

29 *See, e.g.*, DAVID WALLACE-WELLS, THE UNINHABITABLE EARTH: LIFE AFTER WARMING 186–89 (2019) ("[T]he climate crisis demands political commitment well beyond the easy engagement of rhetorical sympathies, comfortable partisan tribalism, and ethical consumption.").

30 *See* CARSTEN HANSEN, WAKING THE TRILLION-DOLLAR GIANT: SUSTAINABLE PROCUREMENT (SPP) AND THE 2030 SDG AGENDA 7, 9–10 (2020), https://www.greengrowthknowledge.org/sites/default/files/SPP%20Article%20-%20Waking%20the%20Giant%20(Carsten%20Hansen%202020)%20(Final)%2001%20October%202020.pdf [https://perma.cc/NC8J-CTTV].

tracts in Fiscal Year 2022,[31] making it the single largest purchaser of goods and services in the world.[32]

The magnitude of the federal government's procurement spending creates unique potential for government contracts to significantly impact climate change mitigation efforts in two interrelated ways. First, the enormous quantity of goods and services purchased by the government significantly impacts the environment through greenhouse gas emissions related to manufacturing, transportation, maintenance, fueling, and disposal.[33] Second, the demand created by the government's commitment to purchasing environmentally sustainable solutions can shape markets and increase the innovation and corresponding supply of goods and services that will proliferate throughout public and private markets.[34] If greenhouse gas emissions are the primary anthropogenic source of climate change, then consistent prioritization of solutions associated with lower greenhouse gas emissions has substantial potential to slow the progression of anthropogenic climate change.

President Biden has consistently recognized the critical role that federal public procurement can play in broader climate change policy,[35] but even with directives from the President, on-the-ground im-

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31 *Advanced Search*, USASPENDING.GOV, https://www.usaspending.gov/search/?hash=3344709d2de59d1c6c19104655195265 [https://perma.cc/P4ES-6L8M] (select "Start Searching Awards," filter for awards from "FY 2022" under the "Time Period" dropdown, and filter for Contracts and Contract IDVs under the "Award type" dropdown).

32 *Selling Greener Products and Services to the Federal Government*, *supra* note 11.

33 *See, e.g.*, Tanya Filer, *How Governments Can Turn Procurement into a Climate Innovation Tool*, BROOKINGS (Sept. 16, 2021, 10:32 PM), https://www.brookings.edu/techstream/how-governments-can-turn-procurement-into-a-climate-innovation-tool [https://perma.cc/Y5J7-WBVZ].

34 *See id.*; Steven L. Schooner & Evan Matsuda, *Sustainable Procurement: Building Vocabulary to Accelerate the Federal Procurement Conversation*, 21-10 BRIEFING PAPERS 1, 2 (2021); Sarah Gibbens, *What If the World's Biggest Customer Went Green? The U.S. Government Wants to Find Out*, NAT'L GEOGRAPHIC (Mar. 23, 2021), https://www.nationalgeographic.com/environment/article/what-if-worlds-biggest-customer-went-green-us-government-wants-to-find-out [https://perma.cc/U5WN-RA97].

35 *See, e.g.*, Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7623–24 (Jan. 27, 2021) ("It is the policy of my Administration to lead the Nation's effort to combat the climate crisis by example—specifically, by aligning the management of Federal procurement . . . to support robust climate action. By providing an immediate, clear, and stable source of product demand . . . my Administration will help to catalyze private sector investment into, and accelerate the advancement of America's industrial capacity to supply, domestic clean energy, buildings, vehicles, and other necessary products and materials."); Exec. Order No. 14,030, 86 Fed. Reg. 27,967, 27,969 (May 20, 2021) ("The Federal Acquisition Regulatory Council . . . shall consider amending the Federal Acquisition Regulation (FAR) to . . . ensure that major Federal agency procurements minimize the risk of climate change . . . ."); Exec. Order No. 14,057, 86 Fed. Reg. 70,935, 70,935 (Dec. 8, 2021) ("[T]he Federal Government shall use its scale and procurement power to

plementation has not reflected the Administration's prioritization of environmentally sustainable procurement.[36]

B. A Lost Opportunity: The United States Postal Service Purchased up to 165,000 Fossil-Fuel-Powered "Next Generation" Delivery Vehicles

USPS maintains the largest vehicle fleet in the United States with over 200,000 delivery and collection vehicles.[37] As part of President Biden's plan to revitalize the government's sustainability efforts, Executive Order 14,008 created a National Climate Task Force and directed it to "use . . . all available procurement authorities to achieve or facilitate . . . clean and zero-emission vehicles for . . . government fleets, *including vehicles of the United States Postal Service*."[38]

One month after President Biden signed Executive Order 14,008, however, USPS awarded a ten-year indefinite-delivery, indefinite-quantity[39] contract to Oshkosh for a fossil-fuel-driven delivery vehicle—expected to operate at only 8.6 miles per gallon—to replace the decades-old Grumman Long Life Vehicle fleet.[40] The contract estab-

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achieve . . . 100 percent zero-emission vehicle acquisitions by 2035 . . . a net-zero emissions building portfolio by 2045 . . . a 65 percent reduction in scope 1 and 2 greenhouse gas emissions . . . [and] net-zero emissions from Federal procurement . . . .").

36 *See, e.g.*, Letter from Vicki Arroyo, Assoc. Adm'r, EPA, to Jennifer Beiro-Réveillé, Senior Dir. of Env't Affs. & Corp. Sustainability, USPS (Feb. 2, 2022) [hereinafter EPA Letter to USPS] ("[The Postal Service's proposal] is plainly inconsistent with . . . specific national policies to move with deliberate speed toward clean, zero-emitting vehicles, including Executive Orders 14008 and 14037 and their policies . . . .").

37 USPS Off. of Inspector Gen., *supra* note 6.

38 Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7623–24 (Jan. 27, 2021) (emphasis added).

39 Indefinite-delivery, indefinite-quantity contracts, commonly referred to as "IDIQ" contracts, specify a minimum purchase requirement but otherwise do not define the quantity of supplies or services that the government will purchase over the life of the contract. *See generally* FAR subpart 16.5 (establishing the regulations for IDIQ contracts). The purchasing agency issues orders for supplies or services as needed under the contract. FAR 16.501-1.

40 *Contract Award*, *supra* note 3; *see also* EPA Letter to USPS, *supra* note 36 ("[T]he proposed new internal combustion engine (ICE) vehicles are expected to achieve only 8.6 miles per gallon (mpg), barely improving over the decades old long-life vehicles that achieve 8.2 mpg."). Notably, Oshkosh's NGDV proposal allows USPS to purchase electric versions of its vehicles at additional cost, but USPS initially expected to place only ten percent of its orders for the electric version of the NGDV, meaning ninety percent of its orders would be for the 8.6 mpg internal combustion version. *See* Record of Decision, *supra* note 5, at 1 to 2, app. A at 3-1. After months of criticism and pressure from Congress and the public, USPS announced commitments to increase the percentage of electric NGDV orders first to twenty percent and then to fifty percent, with the overall expectation that forty percent of the new fleet would be electric. *Postal Service Modernization Enables Expanded Electric Vehicle Opportunity*, USPS (July 20, 2022), https://about.usps.com/newsroom/national-releases/2022/0720-postal-service-modernization-enables-expanded-electric-vehicle-opportunity.htm [https://perma.cc/CKT6-L2XC]; *see, e.g.*, Jacob Bogage, *16 States, D.C., Climate Activists Sue USPS to Block Truck Purchase*, Wash. Post

lished a quantity range of 50,000 to 165,000 NGDVs manufactured over the ten-year contract period.[41] On top of the sheer quantity of vehicles, USPS expects them to last for decades.[42] The Statement of Objectives in the NGDV acquisition's request for proposals set the minimum vehicle lifecycle for the new NGDVs at twenty years.[43] 165,000 fossil-fuel-driven mail delivery and collection vehicles will emit an enormous quantity of carbon dioxide over twenty years.[44]

This acquisition presented the USPS with a perfect, critically important opportunity to implement the climate change priorities of the federal government under the Biden Administration.[45] Nevertheless, USPS awarded the contract to Oshkosh for an internal combustion engine delivery vehicle, citing cost as a key factor in the decision.[46]

Without a clear, standardized mechanism for integrating the evaluation of environmental factors into the legal frameworks regulating government procurement, the sustainable procurement directives from President Biden and general policy prioritization of climate

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(Apr. 28, 2022, 11:04 AM), https://www.washingtonpost.com/business/2022/04/28/usps-trucks-lawsuit/ [https://perma.cc/TA7S-U9YV]; Jory Heckman, *Challenge to USPS Fleet Cost Analysis Advances to House Floor After Committee Vote*, FED. NEWS NETWORK (May 11, 2022, 3:57 PM), https://federalnewsnetwork.com/agency-oversight/2022/05/challenge-to-usps-fleet-cost-analysis-advances-to-house-floor-after-committee-vote/ [https://perma.cc/84ZD-P7GE]. Forty percent is undoubtedly an improvement over ten percent, but the NGDV procurement as it currently stands will still result in U.S. reliance on a majority fossil-fuel driven postal fleet for the next twenty years. To prioritize the climate impact of federal procurements meaningfully and reliably, environmental concerns must play a prominent role when planning and competing government contracts, not post-award in response to widespread criticism.

41 *Contract Award*, *supra* note 3.

42 *See* U.S. POSTAL SERV., NEXT GENERATION DELIVERY VEHICLE (NGDV) PROTOTYPE DESIGN: STATEMENT OF OBJECTIVES SECTION B 1 (2015).

43 *Id.*

44 *See* EPA Letter to USPS, *supra* note 36, at 3 ("The [greenhouse gas] emissions from the inefficient new ICE vehicles will total nearly 20 million metric tons of carbon dioxide equivalent over the vehicles' 20-year expected lives, equivalent to the annual emissions from 4.3 million passenger vehicles or 5 coal-fired power plants." (footnote omitted)).

45 *See id.* ("The Postal Service's proposal as currently crafted represents a crucial lost opportunity to more rapidly reduce the carbon footprint of one of the largest government fleets in the world . . . [and] is plainly inconsistent with . . . specific national policies to move with deliberate speed toward clean zero-emitting vehicles, including Executive Orders 14008 and 14037 and their policies. . . . [A] fully informed Postal Service NGDV decision on this unparalleled opportunity for the federal government to lead by example on climate and clean energy innovation is essential." (footnotes omitted)).

46 *See* Jacob Bogage, *Biden's Spending Package Would Give USPS $6 Billion to Replace Dangerous Mail Trucks with Electric Vehicles*, WASH. POST (Oct. 29, 2021, 2:26 PM), https://www.washingtonpost.com/business/2021/10/29/biden-usps-dejoy-trucks [https://perma.cc/KQM8-6YVE] ("DeJoy told House panels in February and March that the agency could only afford to make 10 percent of the NGDV fleet electric without additional funding from Congress.").

change mitigation will not overcome institutional inertia.[47] Although individual contracting officers and evaluation teams[48] within agencies may—and indeed should—*choose* to prioritize environmental impacts in procurement decisions,[49] once-in-a-generation multi-billion-dollar procurement opportunities are too critical to the government's climate change mitigation efforts to leave up to the contracting officer's discretion.[50]

C. Fundamental Barrier: The Preference for Low Up-Front Purchase Prices

Leaving the incorporation of environmental concerns up to the discretion of individual contracting officers is especially unlikely to yield results because of an ingrained preference for low up-front purchase prices, referred to by procurement experts as the tyranny of low price.[51] Prioritizing price is not inherently problematic; indeed the

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47 Note that the sustainable procurement directives in President Biden's executive orders generally use broad, aspirational language with distant time horizons; the directives do not create specific, enforceable requirements for the acquisition workforce. *See, e.g.*, Exec. Order No. 14,008, 86 Fed. Reg. 7619, 7623–24 (Jan. 27, 2021); Exec. Order No. 14,057, 86 Fed. Reg. 70,935, 70,935 (Dec. 8, 2021). Wholesale implementation of the sustainable procurement policy priorities espoused by the Biden Administration will require specific, well defined legal mandates in the FAR. To be clear, the FAR does not apply to the USPS; my suggestions in Part III would not affect USPS procurements moving forward. *See 7-7.1 Federal Laws Applicable to the Postal Service*, *supra* note 13. Rather, the NGDV acquisition provides a useful warning of the substantial impact that the prioritization of cost over environmental impact can have in federal procurements if no manageable climate-related legal requirements are introduced as a counterbalance to the preference for low cost.

48 *See generally* FAR subpart 15.3 (describing source selection procedures). Contracting officers have the authority to bind the government under contract but do not always possess the technical expertise to evaluate proposals, so they may form evaluation teams to select the most suitable proposal based on the criteria established for each acquisition. *See* FAR 15.303.

49 For a good example of an agency *choosing* to prioritize environmental impacts in the procurement process, see the recent solicitation issued by the United States Agency for International Development ("USAID") for global health supply chain programs. *See* USAID, Request for Proposals (RFP) No. 7200AA22R00011, at 30, 51 (2022).

50 USPS's exercise of discretion in this acquisition has come under the scrutiny of the EPA, the Government Accountability Office, and the House Committee on Oversight and Reform. *See* EPA Letter to USPS, *supra* note 36; U.S. Gov't Accountability Off., GAO-22-105931, Fleet Management: Preliminary Observations on Electric Vehicles in the Postal and Federal Fleets (2022); Press Release, House Comm. on Oversight & Reform, At Hearing, Oversight Committee Urges Postal Service to Rapidly Electrify Delivery Fleet (Apr. 5, 2022), https://oversight.house.gov/news/press-releases/at-hearing-oversight-committee-urges-postal-service-to-rapidly-electrify [https://perma.cc/C4LM-UFWL].

51 *See, e.g.*, Roger Waldron, *The Tyranny of Low Price and Other Challenges*, Fed. News Network (Dec. 10, 2021, 11:20 AM), https://federalnewsnetwork.com/commentary/2021/12/the-tyranny-of-low-price-and-other-challenges [https://perma.cc/C8UP-QYTQ]; Steven L. Schooner & Markus Speidel, *'Warming Up' to Sustainable Procurement*, 60 Cont. Mgmt. 32, 37 (Oct.

Competition in Contracting Act ("CICA") *requires* purchasing agencies to "include cost or price to the Federal Government as an evaluation factor that must be considered in the evaluation of proposals."[52]

This makes sense. Government procurements are funded by taxpayers.[53] The government "has a responsibility to act as a careful steward of taxpayer dollars, ensuring that Federal funds are used for purposes that are appropriate, cost effective, and important to the core mission of executive departments and agencies."[54] When the government spends over $600 billion dollars of appropriated funds in one year through contracts, careful stewardship of taxpayer dollars must involve evaluation of offers based on cost or price.

Prioritization of low price has become a problem in public procurement, largely as a result of a strong tendency of decision-makers to focus on the up-front purchase price of goods and services[55] as opposed to more complicated analyses that consider costs throughout a procurement's lifecycle.[56] Unfortunately, this also is understandable. Purchase price is relatively simpler to evaluate, and the acquisition workforce is perennially overworked and understaffed.[57] Contracting officers are unlikely to create extra time-consuming work by writing

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2020) ("Since time immemorial, and increasingly since the acquisition reform initiatives of the 1990s, our profession has struggled to escape the tyranny of 'low price.'").

52 41 U.S.C. § 3306(c)(1)(B).

53 Indeed, the use of appropriated funds is a fundamental feature of "acquisition" as defined in the FAR. *See* FAR 2.101 ("*Acquisition* means the acquiring by contract *with appropriated funds* of supplies or services . . . by and for the use of the Federal Government . . . ." (emphasis added)). Agencies strictly cannot obligate more money through contracts than the amount appropriated by Congress. *See* 31 U.S.C. § 1341; United States v. MacCollom, 426 U.S. 317, 321 (1976) ("[T]he expenditure of public funds is proper only when authorized by Congress.").

54 Memorandum from Shaun Donovan, Dir., Off. of Mgmt. & Budget, to Heads of Exec. Dep'ts & Agencies 1 (Nov. 25, 2016), https://obamawhitehouse.archives.gov/sites/default/files/omb/memoranda/2017/m-17-08.pdf [https://perma.cc/NQ7F-7QK8]; *see also About*, U.S. GOV'T ACCOUNTABILITY OFF., https://www.gao.gov/about [https://perma.cc/EJ5D-8ZBK]; Budget and Accounting Act of 1921, Pub. L. No. 67-13, § 312, 42 Stat. 20, 25–26 (codified as amended at 31 U.S.C. § 712) (establishing the General Accounting Office, now called the Government Accountability Office, to, in part, "make recommendations looking to greater economy or efficiency in public expenditures").

55 *See* Schooner & Speidel, *supra* note 51, at 37.

56 *See generally* John J. Czarnezki & Steven Van Garsse, *What Is Life-Cycle Costing?*, *in* COST AND EU PUBLIC PROCUREMENT LAW: LIFE-CYCLE COSTING FOR SUSTAINABILITY 3 (Marta Andhov et al. eds., 2020) (providing an overview of lifecycle cost analysis).

57 *See* Steven L. Schooner & Daniel S. Greenspahn, *Too Dependent on Contractors? Minimum Standards for Responsible Governance*, 8 J. CONT. MGMT. 9, 15–16 (2008) (explaining that significant reductions in the government's acquisition workforce in the 1990s and massive increases in procurement spending since 9/11 have led to an "understaffed, under-resourced, and underappreciated" contracting workforce).

requests for proposals that require complex, contract-specific lifecycle cost evaluations.[58]

By focusing on low purchase prices and neglecting lifecycle costs, the government fails to appropriately consider the myriad costs associated with unmitigated climate change progression. Unlike to an individual consumer, the environmental effects of public procurements are not externalities to the federal government—the government will bear substantial portions of the disaster relief costs, healthcare costs, and crop-cycle disruption costs associated with higher average global temperatures.[59] As such, even in purely financial terms, focusing on low up-front purchase prices may fail to provide the lowest cost solutions to the government's needs.[60] In environmental terms, focusing on low purchase prices will continue to bypass more environmentally sustainable solutions that may have higher up-front prices, but which are necessary to mitigate the worsening impacts of climate change.

II. Overcoming the Tyranny of Low Price

Procurement spending invokes three levels of government interests: (1) the acute needs of purchasing agencies, (2) policy priorities undergirding and created by the procurement process itself, and (3) broader public policy objectives implicated by the massive scale of federal public procurement.

First, the government enters into contracts because agencies need products and services to carry out their missions.[61] For example, as discussed in Part I, the Postal Service contracted with Oshkosh because it needs package delivery vehicles to "provide prompt, reliable, and efficient . . . postal services to all communities."[62] The United

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58 *See* Czarnezki & Van Garsse, *supra* note 56, at 14–15.

59 *See, e.g.*, *Billion-Dollar Weather and Climate Disasters: Time Series*, *supra* note 20; Vijay S. Limaye, Wendy Max, Juanita Constible & Kim Knowlton, *Estimating the Health-Related Costs of 10 Climate-Sensitive U.S. Events During 2012*, 3 GeoHealth 245, 245–46, 254–59 (2019), https://agupubs.onlinelibrary.wiley.com/doi/epdf/10.1029/2019GH000202 [https://perma.cc/S42L-LHSJ].

60 *See* Schooner & Matsuda, *supra* note 34, at 7–8 (adding that fossil fuel subsidies artificially lower the purchase price of fossil-fuel-dependent solutions).

61 *See* FAR 1.102(a) ("The vision for the Federal Acquisition System is to deliver on a timely basis the best value product or service to the customer . . . ."); John Wm. Whelan & Edwin C. Pearson, *Underlying Values in Government Contracts*, 10 J. Pub. L. 298, 302 (1961) ("[The government's] objective is not to make contracts in order to make money. In the large sense, it makes contracts to fulfill governmental needs, ultimately those of the people governed.").

62 39 U.S.C. § 101(a) ("The Postal Service shall have as its basic function the obligation to provide postal services to bind the Nation together through the personal, educational, literary,

States government does not manufacture vehicle fleets, so agencies in need of vehicles enter into contracts with companies that do.[63]

Second, by reaching out into the marketplace to procure products and services from the private sector, the public procurement process creates its own web of often conflicting policy priorities.[64] The focus on low purchase prices is one example of a policy born out of the procurement process itself. The government must also balance, for example, competition, risk aversion, and efficiency every time it seeks to procure a solution to meet its needs.[65] The government faces these policy considerations each time it engages in procurement at any scale.[66]

Third, the massive volume of federal public procurement creates the potential for government to address broader policy goals through its cumulative allocation of hundreds of billions of dollars annually.[67] Indeed, "fulfilling public policy objectives" is a central guiding principle of the federal acquisition system.[68] The federal government has long incorporated broad public policy goals into the procurement process.[69] By adopting programs that serve overarching policies through

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and business correspondence of the people."); *see also* Motion to Dismiss Plaintiff's Complaint at 2–3, Workhorse Grp., Inc. v. United States, No. 1:21-cv-01484 (Fed. Cl. July 6, 2021).

63 *See* Whelan & Pearson, *supra* note 61, at 302 ("The Government acquires personal services by contract when such services are unavailable from government employees."). As a service-oriented example, consider the billion-dollar Department of Health and Human Services contract with Walgreen Co. to provide on-site laboratory services for processing COVID-19 tests. *See Definitive Contract PIID 75P00120C00028*, USASPENDING.GOV, https://www.usaspending.gov/award/CONT_AWD_75P00120C00028_7570_-NONE-_-NONE- [https://perma.cc/6GEJ-SWWZ]; *COVID-19 Self-Swab and Point-of-Care Testing Public-Private Partnership*, SAM.GOV, https://sam.gov/opp/48d1a3e3f36e4738a47b894e1c7d0bfc/view [https://perma.cc/N477-H94T]. The federal government does not have the capacity to process self-swab testing at scale, so it contracts with a company that does.

64 *See generally* Steven L. Schooner, *Desiderata: Objectives for a System of Government Contract Law*, 11 PUB. PROCUREMENT L. REV. 103, 103 (2002) (identifying nine goals of government procurement systems: "(1) competition; (2) integrity; (3) transparency; (4) efficiency; (5) customer satisfaction; (6) best value; (7) wealth distribution; (8) risk avoidance; and (9) uniformity").

65 *See id.*

66 *See id.*

67 *See* Whelan & Pearson, *supra* note 61, at 302 ("Government contracts produce effects which may not be included among their purposes but which foreseeably and almost inevitably flow from them.").

68 FAR 1.102(a) ("The vision for the Federal Acquisition System is to deliver on a timely basis the best value product or service to the customer, while maintaining the public's trust and fulfilling public policy objectives.").

69 For example, nearly a century ago, the Buy American Act of 1933 prioritized support for American industry over low contract prices, and the government continues to prioritize domestic content restrictions in federal procurements. *See* Buy American Act, 41 U.S.C.

public procurements, the government has demonstrated its willingness to place certain policy goals above low purchase prices.[70]

A. The Prioritization of Small Businesses over Lowest Purchase Price

The Small Business Act,[71] as implemented in Federal Acquisition Regulation ("FAR") Part 19,[72] offers a prominent example of the government's willingness to prioritize broader policy objectives over securing the lowest purchase price available. The Small Business Act establishes the government-wide goal that small businesses receive at least twenty-three percent of the total value of federal prime contract awards each fiscal year.[73] Although agencies may not award contracts to small businesses if the contracts' costs to the government exceed fair market price,[74] the Small Business Act nevertheless ensures that purchase price takes a back seat to the public policies associated with supporting small businesses.[75] By setting aside nearly a quarter of the

§§ 8301–8305; *see also* FAR subpart 25.1; Trade Agreements Act of 1979, 19 U.S.C. §§ 2501–2581; 10 U.S.C. § 2533a (referred to as the Berry Amendment). *See generally* DAVID H. CARPENTER & BRANDON J. MURRILL, CONG. RSCH. SERV., R46748, THE BUY AMERICAN ACT AND OTHER FEDERAL PROCUREMENT DOMESTIC CONTENT RESTRICTIONS (2022) (providing a description of the domestic content restrictions for federal government procurements).

70 *See* Romeo N. Niyongere, *European-Style Green Public Procurement in the American Context: What It Could Look Like*, 49 PUB. CONT. L.J. 785, 798 (2020) ("Federal procurement historically has been used as a policy instrument for objectives such as creating and safeguarding opportunities for small businesses, obtaining quality goods at low prices through competition, protecting American manufacturing from foreign competition, and promoting non-discrimination and affirmative action." (footnotes omitted)).

71 15 U.S.C. §§ 631–657.

72 FAR pt. 19.

73 15 U.S.C. § 644(g)(1)(A)(i); *see also* ROBERT JAY DILGER & R. CORINNE BLACKFORD, CONG. RSCH. SERV., R45576, AN OVERVIEW OF SMALL BUSINESS CONTRACTING 29–30 (2022) ("The current federal small business procurement goals are . . . at least 23.0% of the total value of all small business eligible prime contract awards to small businesses for each fiscal year."). Agencies accomplish this allocation of procurement spending through small business set-asides, which in general require contracting officers to limit competition contracts to small businesses—thereby excluding larger firms that may be able to offer cheaper solutions through economies of scale—for every contract for which the contracting officer expects at least two small businesses to submit offers. FAR subpart 19.5; *see also* Kingdomware Techs., Inc. v. United States, 579 U.S. 162 (2016) (holding that the Department of Veterans Affairs *must* limit competition for contract award to veteran-owned small businesses when the contracting officer reasonably expects at least two such businesses to submit offers).

74 FAR 19.501(f). Note that fair market price does not mean lowest price available. If small businesses routinely offered competitive prices compared with large contractors, small business set-asides would not be necessary.

75 Title 15 of the U.S. Code explains the government's policy of supporting small businesses as follows:

> The essence of the American economic system of private enterprise is free competi-

federal government's procurement budget to promote small businesses, the government wields the market-shaping power of its purse for non-price-related policies.

Similar to the federal government's longstanding recognition that the broad social benefits associated with promoting small businesses outweigh the negatives of potentially higher up-front purchase prices, the Biden Administration has expressed its recognition of the broad social benefits associated with limiting the federal government's contributions to climate change through greenhouse gas emissions.[76] The federal procurement system provided an impactful lever for promoting small businesses, so the Small Business Act incorporated into the FAR the government's public policy interest in promoting small businesses.[77] The Federal Acquisition Regulatory Council ("FAR Council")[78] should similarly incorporate into the FAR the government's public policy interest in mitigating climate change.[79]

That said, in the already highly complex federal procurement system, some public policy objectives are more difficult to address than others because of a lack of workable metrics.

B. What Gets Measured Gets Managed

Notably, the implementation of small business set-asides relies on a straightforward metric. The Small Business Administration ("SBA")[80] provides a table of small business size standards broken

> tion. Only through full and free competition can free markets, free entry into business, and opportunities for the expression and growth of personal initiative and individual judgment be assured. The preservation and expansion of such competition is basic not only to the economic well-being but to the security of this Nation. Such security and well-being cannot be realized unless the actual and potential capacity of small business is encouraged and developed.

15 U.S.C. § 631(a).

76 *See, e.g.*, Exec. Order No. 14,008, 86 Fed. Reg. 7619 (Jan. 27, 2021); Exec. Order No. 14,057, 86 Fed. Reg. 70,935 (Dec. 8, 2021).

77 15 U.S.C. § 631–57; FAR pt. 19.

78 The FAR Council "manages coordinates controls and monitors [sic] the maintenance and issuance of changes in the FAR." *About the FAR Council*, ACQUISITION.GOV, https://www.acquisition.gov/far-council [https://perma.cc/9Y9G-WK82]; *see also* 41 U.S.C. § 1303(a)(1) ("[The FAR Council] shall jointly issue and maintain . . . a single Government-wide procurement regulation, to be known as the Federal Acquisition Regulation."). The FAR Council consists of four members: (1) the Administrator for Federal Procurement Policy, (2) the Secretary of Defense, (3) the Administrator of National Aeronautics and Space, and (4) the Administrator of General Services. 41 U.S.C. § 1302.

79 *See infra* Part III.

80 The SBA was created by the Small Business Act "to carry out the policies of [the Act]:" namely "full and free competition," "economic well-being," and "the security of this Nation." 15 U.S.C. § 631(a), 633.

down by sector (e.g., manufacturing), subsector (e.g., food manufacturing), and industry title (e.g., dog and cat food manufacturing).[81] The classification system provides a size cutoff for each industry based either on average annual receipts or average employment numbers.[82] Offerors can therefore easily determine whether they qualify as a small business for the purposes of the Small Business Act and its mandatory set-asides.[83] The simplicity of the metric plays a key role in the feasibility of its implementation.

As the world of business management has recognized, "what gets measured gets managed."[84] Metrics provide the data upon which executives and policymakers base their decisions. What typically gets measured, though, is that which is easy to measure, not necessarily that which is useful.[85] In the federal public procurement space, with its overworked and understaffed acquisition workforce, it is especially critical that evaluative metrics are both simple to apply *and* effective.[86]

C. Climate Metrics

To incorporate environmental concerns into procurements across agencies and contract types, the procurement process needs a broadly applicable and straightforward metric for the climate impact of proposed solutions. And that metric needs to work; it needs to reliably internalize environmental externalities, or at least mandate their consideration so they cannot be set aside in favor of easier fossil-fuel based solutions with lower up-front prices.

1. The Social Cost of Greenhouse Gases

In 2009, President Obama created the Interagency Working Group on the Social Cost of Greenhouse Gases ("IWG") "to develop

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81 13 C.F.R. § 121.201 (2021); *see also Table of Size Standards*, U.S. SMALL BUS. ADMIN. (effective July 14, 2022), https://www.sba.gov/document/support—table-size-standards [https://perma.cc/M9B5-CB3M]. These standards were created and are regularly updated under the North American Industry Classification System ("NAICS"), developed jointly by North American Free Trade Agreement countries, and first published in 1997. *See* OFF. OF MGMT. & BUDGET, EXEC. OFF. OF THE PRESIDENT, NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM 3 (2017).

82 13 C.F.R. § 121.201.

83 FAR 19.301.

84 Management consultant Peter Drucker is commonly credited with the full saying: "What gets measured gets managed—even when it's pointless to measure and manage it, and even if it harms the purpose of the organization to do so." Paul Barnett, *If What Gets Measured Gets Managed, Measuring the Wrong Thing Matters*, 19 CORP. FIN. REV. 5, 5 (2015).

85 *See id.*; Schooner & Matsuda, *supra* note 34, at 5.

86 *See* Schooner & Greenspahn, *supra* note 57, at 15–16.

a consistent set of estimates" for the monetary value of CO_2 emissions reductions.[87] The need for a consistent monetary value for the cost of CO_2 emissions arose from a 2008 opinion by the Court of Appeals for the Ninth Circuit that struck down a National Highway Traffic Safety Administration ("NHTSA") fuel economy standard because the agency failed to monetize the benefits of greenhouse gas emissions when determining the new standard.[88] Following the Ninth Circuit's decision, "[f]ederal agencies began regularly incorporating social cost of carbon [("SC-CO_2")] estimates in benefit-cost analyses . . . ."[89] Because agency decisions suddenly required a monetized value for the benefits or costs associated with reductions or increases in CO_2 emissions, the government needed to develop a value that agencies across the federal government could consistently, reliably, and accurately apply to their decision making processes.[90]

To that end, the IWG published its first set of SC-CO_2 values in 2010 for use by government agencies in their cost-benefit analyses.[91] The IWG continued to update the SC-CO_2 values based on evolving methodologies, in addition to publishing values for the social cost of methane and of nitrous oxide.[92] This set of values is collectively called SC-GHG.[93] Each SC-GHG value reflects "the societal value of reducing emissions of the gas in question by one metric ton."[94]

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87 *See* KATE C. SHOUSE, CONG. RSCH. SERV., IF11844, SOCIAL COST OF GREENHOUSE GASES: ISSUES FOR CONGRESS 2 (2021).

88 *See* Ctr. for Biological Diversity v. NHTSA, 538 F.3d 1172, 1202–03 (9th Cir. 2008) (holding that NHTSA's failure to monetize the benefit of carbon emissions reduction was arbitrary and capricious, and remanding the case to NHTSA to include a monetized value).

89 IWG INTERIM ESTIMATES, *supra* note 14, at 2; *see also* Exec. Order No. 12,866, 58 Fed. Reg. 51,735, 51,736 (Sept. 30, 1993).

90 IWG INTERIM ESTIMATES, *supra* note 14, at 2.

91 *Id.* at 2–3.

92 *Id.*

93 *Id.* at 2.

94 *Id.* The IWG summarizes SC-GHG as follows:

> The SC-GHG is the monetary value of the net harm to society associated with adding a small amount of that [greenhouse gas] to the atmosphere in a given year. In principle, it includes the value of all climate change impacts, including (but not limited to) changes in net agricultural productivity, human health effects, property damage from increased flood risk [and] natural disasters, disruption of energy systems, risk of conflict, environmental migration, and the value of ecosystem services. The SC-GHG, therefore, should reflect the societal value of reducing emissions of the gas in question by one metric ton.

Id.

Disbanded by President Trump in 2017[95] and reinstated by President Biden in 2021,[96] the IWG recently published an updated set of interim SC-GHG values for agencies to utilize while it finalizes new values based on a more comprehensive methodology.[97]

The SC-GHG values are broadly applicable, straightforward, and consistent across government agencies.[98] The IWG has taken on the complex work of quantifying the social costs associated with greenhouse gas emissions; purchasing agencies need only apply the metric.[99]

However, the SC-GHG values—which reflect the social cost *per ton* of greenhouse gas emissions—do not by themselves provide purchasing agencies with useful comparative information. To provide a useful datapoint for comparing proposals from prospective offerors, the prospective offerors must provide an estimate of the total tonnage of greenhouse gas emissions associated with proposed solutions. By multiplying the SC-GHG dollar value of one ton of emissions by the total tonnage of emissions associated with a proposed solution, a contracting officer can assess the social cost, in dollars, of each proposal considered.[100]

2. Greenhouse Gas Accounting

Private industry has been developing and implementing methodologies for measuring greenhouse gas emissions associated with their operations for over two decades.[101] The most widely adopted stan-

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95 Exec. Order No. 13,783, 82 Fed. Reg. 16,093, 16,095 (Mar. 28, 2017) (disbanding the IWG).

96 Exec. Order No. 13,990, 86 Fed. Reg. 7037, 7040 (Jan. 20, 2021) (re-establishing the IWG).

97 *See* IWG INTERIM ESTIMATES, *supra* note 14 (publishing and explaining the IWG's interim SC-GHG values and discount rates). Until the IWG publishes the new values, the interim value for the social cost of one ton of CO_2 in 2022 is $53 per ton at the recommended discount rate of three percent. *Id.* app. at tbl. A-1. If a contractor estimates that performance of its proposal will result in 1,000,000 tons of CO_2 emissions over the life of the contract, the social cost of that contract's CO_2 emissions is $53,000,000.

98 *See* Richard L. Revesz & Max Sarinsky, *The Social Cost of Greenhouse Gases: Legal, Economic, and Institutional Perspective*, 39 YALE J. ON REGUL. 855, 855 (2022).

99 *Id.*

100 For example, the EPA calculated the emissions associated with the USPS NGDV contract at "nearly 20 million metric tons of carbon dioxide equivalent over the vehicles' 20-year expected lives . . . . Using the current interim social cost of carbon dioxide, the present value of the climate damages from these emissions would exceed $900 million . . . ." EPA Letter to USPS, *supra* note 36 (footnotes omitted).

101 *See, e.g.*, WORLD BUS. COUNCIL FOR SUSTAINABLE DEV. & WORLD RES. INST., THE GREENHOUSE GAS PROTOCOL: A CORPORATE ACCOUNTING AND REPORTING STANDARD (2001).

dards have been developed by the Greenhouse Gas Protocol.[102] The federal government has also developed multiple greenhouse gas accounting methodologies for quantifying emissions related to the government's activities, buildings, fleets, and energy consumption.[103]

Although variations exist among different methodologies, greenhouse gas accounting generally aims to quantify an entity's direct and indirect emissions up and down that entity's supply chain.[104] For example, the Greenhouse Gas Protocol does this by differentiating Scope 1, Scope 2, and Scope 3 emissions.[105] Scope 1 emissions encapsulate the direct emissions from a firm's assets, such as a vehicle fleet's emissions from internal combustion drivetrains.[106] Scope 2 emissions include the indirect emissions that result from powering, heating, and cooling a firm's operations.[107] The lights used to illuminate a workspace do not in and of themselves emit greenhouse gases, but generating the electricity that powers the lights does emit greenhouse gases.[108] Unless the firm in question is itself a power plant—in which case electricity generation would constitute its Scope 1 emissions because its own assets

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102 *See About Us*, *supra* note 17; WORLD BUS. COUNCIL FOR SUSTAINABLE DEV. & WORLD RES. INST., THE GREENHOUSE GAS PROTOCOL: A CORPORATE ACCOUNTING AND REPORTING STANDARD 68 (rev. ed. 2004) [hereinafter REVISED GREENHOUSE GAS PROTOCOL], https://ghgprotocol.org/sites/default/files/standards/ghg-protocol-revised.pdf [https://perma.cc/TAS9-CT74].

103 *See Greenhouse Gas (GHG) Accounting Tools*, NEPA.GOV, https://web.archive.org/web/20220612174843/https://ceq.doe.gov/guidance/ghg-accounting-tools.html [https://perma.cc/ZA95-9X3G] (listing the several greenhouse gas accounting tools developed and used by government agencies); *see also* ALBERTA CARPENTER, ELIZA HOTCHKISS & ALICEN KANDT, NAT'L RENEWABLE ENERGY LAB'Y, AN INTERAGENCY PILOT OF GREENHOUSE GAS ACCOUNTING TOOLS: LESSONS LEARNED 3–5, 10–12 (2013), https://www.nrel.gov/docs/fy13osti/56602.pdf [https://perma.cc/EL77-9GSB].

104 *See About Us*, *supra* note 17.

105 *See* REVISED GREENHOUSE GAS PROTOCOL, *supra* note 102, at 25; MARY SOTOS, GREENHOUSE GAS PROTOCOL, GHG PROTOCOL SCOPE 2 GUIDANCE 5–6 (2015), https://ghgprotocol.org/sites/default/files/standards/Scope%202%20Guidance_Final_Sept26.pdf [https://perma.cc/TT8G-R3BL]; WORLD BUS. COUNCIL FOR SUSTAINABLE DEV. & WORLD RES. INST., GREENHOUSE GAS PROTOCOL, CORPORATE VALUE CHAIN (SCOPE 3) ACCOUNTING AND REPORTING STANDARD: SUPPLEMENT TO THE GHG PROTOCOL CORPORATE ACCOUNTING AND REPORTING STANDARD 4–6 (2011) [hereinafter ACCOUNTING AND REPORTING STANDARD], https://ghgprotocol.org/sites/default/files/standards/Corporate-Value-Chain-Accounting-Reporing-Standard_041613_2.pdf [https://perma.cc/3RBD-XURH].

106 *See* REVISED GREENHOUSE GAS PROTOCOL, *supra* note 102, at 25.

107 *See* SOTOS, *supra* note 105, at 5–6.

108 Even solar and wind power generation involve some greenhouse gas emissions; solar panels and wind turbines must be manufactured and transported, their components must be manufactured and transported, and their raw materials must be mined and processed. *See, e.g.*, Charles Q. Choi, *Solar Power's Greenhouse Emissions Measured*, LIVESCIENCE (Feb. 26, 2008), https://www.livescience.com/2324-solar-power-greenhouse-emissions-measured.html [https://perma.cc/Q2HM-6CQD] (noting also that "manufacturing solar cells produces far fewer air pollutants than conventional fossil-fuel-burning power plants").

do the emitting—the emissions associated with electricity consumption are Scope 2 emissions.[109] Scope 3 emissions include the indirect emissions both upstream and downstream in the value chain.[110] Upstream emissions refer to all of the emissions that go into the products, components, or services purchased and subsequently used by a firm in its own operations.[111] Downstream emissions refer to all of the emissions that result from a firm's products after it sells them.[112]

Because greenhouse gas accounting methodologies differentiate between separate categories of emissions, they are scalable in terms of complexity. For simple, low-dollar procurements, agencies could choose to request only Scope 1 emissions estimates—the easiest to precisely quantify—while high-dollar procurements could require offerors to provide the more comprehensive Scope 2 and Scope 3 emissions estimates as well. FAR implementation of SC-GHG metrics can therefore retain a degree of flexibility for purchasing agencies to tailor their reporting requirements to the size and sophistication of likely offerors as revealed by market research.[113]

Although the benefits of one greenhouse gas accounting tool over another exceed the scope of this Note, the proposed incorporation of SC-GHG metrics into the federal procurement process may benefit from a working group dedicated to assessing greenhouse gas accounting methodologies and providing guidance specifically tailored to entities selling products and services to the federal government.[114]

Regardless of the methodology chosen, as long as the greenhouse gas accounting requirements are consistent for each prospective offeror in a given acquisition, combining greenhouse gas emissions estimates for each proposal with SC-GHG conversion values will allow contracting officers to put a monetary value on the environmental impact of every offeror's proposal. By establishing a monetary value, contracting officers will be able to evaluate environmental impact from the same qualitative plane as other price-related factors.[115]

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109 *See* Schooner & Matsuda, *supra* note 34, at 5–6.

110 ACCOUNTING AND REPORTING STANDARD, *supra* note 105, at 5.

111 *Id.*

112 *Id.*

113 *See generally* FAR pt. 10 (prescribing "policies and procedures for conducting market research to arrive at the most suitable approach to acquiring, distributing, and supporting supplies and services").

114 *See* Ceres, Comment Letter on Advance Notice of Proposed Rulemaking Regarding Minimizing the Risk of Climate Change in Federal Acquisitions, at 5, 30 (Jan. 12, 2022), https://www.regulations.gov/comment/FAR-2021-0016-34987 [https://perma.cc/2862-V9T8].

115 *See* Ctr. for Biological Diversity et al., Comment Letter on Advance Notice of Proposed Rulemaking Regarding Minimizing the Risk of Climate Change in Federal Acquisitions, at 12

III. Incorporating the Social Cost of Greenhouse Gases into the Federal Procurement Lifecycle for Contracts Above a Threshold Value

Even though SC-GHG is a broadly applicable metric, and even though greenhouse gas accounting methods are becoming more widely known and applied by industry, the incorporation of the social cost of greenhouse gases into federal procurements unavoidably increases transaction costs.[116] Wholesale adoption of the methods described in Section II.C is therefore unlikely without incorporating the procedures into the FAR and requiring their use in every acquisition.[117]

This Part describes the stages of the procurement process in which mandatory consideration of the social cost of greenhouse gases should be incorporated, including the locations in the FAR that correspond with those stages of the process. This Part then suggests limiting mandatory consideration of the social cost of greenhouse gases to high dollar value contracts in recognition of the higher transaction costs associated with introducing novel evaluation criteria.

(Jan. 13, 2022), https://www.regulations.gov/comment/FAR-2021-0016-34997 [https://perma.cc/G6CK-NCRH].

116 *See generally* José Guilherme Ferraz de Campos & Adriana Marotti de Mello, *Transaction Costs in Environmental Purchasing: Analysis Through Two Case Studies*, 10 J. Operations & Supply Chain Mgmt. 87 (2017) (identifying and analyzing various transactions costs involved in the supplier selection process for environmental purchasing). Although the article examines supplier selection among private companies, the transaction cost economics are equally applicable to public procurements. *Id.* at 95 ("As the number of defined criteria increase, the search for suppliers becomes more expensive . . . .").

117 The FAR currently contains an entire part dedicated to environmental concerns, but it has failed and will continue to fail to impact procurements at the scale needed to address the climate crisis. *See* FAR pt. 23; *see also* Niyongere, *supra* note 70, at 802 ("[W]hile . . . the FAR demonstrate[s] an increased emphasis on environmental considerations in federal procurement, [it] generally do[es] not require federal agencies to purchase environmentally preferable products in any specific procurement. . . . [I]n the absence of clear and comprehensive language and legally binding requirements, significant gaps exist in green federal purchasing." (footnote omitted)). In addition to lacking legally binding requirements, FAR Part 23 draws its authority from executive orders that are multiple generations out of date. *See* FAR 23.102; FAR 23.201; FAR 23.402; FAR 23.702; FAR 23.801; FAR 23.901. Moreover, multiple unrelated public policies have been shoehorned into FAR Part 23, leading to diluted and cumbersome regulations that fail to provide clear, useful guidance to contracting officers. *See* FAR subpart 23.5 (addressing drug use in the workplace); FAR subpart 23.11 (discouraging texting while driving). If updated and pared down, FAR Part 23 may be useful as a centralized location that lists all the places in the FAR where the social cost of greenhouse gases gets incorporated, but FAR Part 23 will not suffice on its own; the social cost of greenhouse gases must be incorporated directly into the parts of the FAR associated with each phase of the procurement process.

A. Incorporating the Social Cost of Greenhouse Gases into the Federal Procurement Process

If the government wants agencies to internalize the costs associated with greenhouse gases and enter into contracts that minimize emissions, contracting officers and other source selection authorities must compare the social cost of greenhouse gases associated with each proposal and choose solutions with lower expected emissions. A comparative evaluation of the social cost of greenhouse gases during source selection is therefore critical, but evaluation alone is not enough; contracting officers must also determine the appropriate emissions estimation requirements for each acquisition, prospective offerors must be aware of those requirements while preparing their proposals, contracting officers must communicate the evaluation factors they will consider during source selection, and government officials and disappointed offerors alike must have procedures in place to verify that emissions estimates align with actual performance under the resulting contracts. Effective incorporation therefore requires express contemplation of the social cost of greenhouse gases during (1) acquisition planning, (2) solicitation, (3) evaluation, and (4) quality assurance.

1. Acquisition Planning

The acquisition planning phase is arguably the most critical stage of the procurement process for incorporating the social cost of greenhouse gases because acquisition planning determines "the overall strategy for managing the acquisition."[118] Part II of this Note discussed the policy considerations that the government must consider each time it seeks a procurement-based solution to its needs.[119] Acquisition planning is the stage of the process during which agencies decide the appropriate balance of those policies for each acquisition.[120] For the social cost of greenhouse gases to play a role in source selection, agencies must prioritize it during acquisition planning.

FAR Part 7, which governs the acquisition planning phase of the procurement process,[121] should require prioritization of the social cost

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118 FAR 2.101 (defining acquisition planning as "the process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost").

119 *See supra* notes 61–70 and accompanying text.

120 *See* FAR 7.102.

121 FAR pt. 7.

of greenhouse gases in FAR 7.102.[122] FAR 7.102 prescribes the policy considerations that agencies must consider during acquisition planning.[123] Specifically, purchasing agencies must perform acquisition planning and market research for all acquisitions to promote (1) acquisition of commercial products and services "to the maximum extent practicable,"[124] (2) full and open competition,[125] (3) selection of the appropriate contract type,[126] and (4) consideration of preexisting contracts to fulfill agency requirements before awarding new contracts.[127]

FAR 7.102 should incorporate a fifth general policy priority: acquisition of products and services that minimize the social cost of greenhouse gases.

2. Solicitation

Purchasing agencies should also expressly state in their solicitations the intention to consider the social cost of greenhouse gases during evaluation and source selection.[128] More specifically, solicitations must request greenhouse gas emissions estimates and describe the acceptable accounting methodologies, the extent to which Scope 1, Scope 2, and Scope 3 estimates are required, and any additional greenhouse gas accounting details specific to the acquisition.

The ability—both practically and legally—of a contracting officer to consider the social cost of greenhouse gases during the remainder of the procurement process depends on its explicit inclusion in the solicitation.[129] From a practical standpoint, a solicitation must request

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122 FAR 7.102 (prescribing the procurement policies agencies must promote and provide for during acquisition planning).

123 *See id.*

124 FAR 7.102(a)(1). *See generally* FAR pt. 12 ("This part . . . implements the Federal Government's preference for the acquisition of commercial products and commercial services . . . by establishing acquisition policies more closely resembling those of the commercial marketplace and encouraging the acquisition of commercial products and commercial services.").

125 *See* FAR 7.102(a)(2). *See generally* FAR pt. 6 ("This part prescribes policies and procedures to promote full and open competition in the acquisition process . . . .").

126 FAR 7.102(a)(3). S*ee generally* FAR pt. 16 ("This part describes types of contracts that may be used in acquisitions. It prescribes policies and procedures and provides guidance for selecting a contract type appropriate to the circumstances of the acquisition.").

127 FAR 7.102(a)(4). *See generally* FAR 8.002–.004 (prescribing the use of mandatory and preferred sources to meet agency requirements); FAR subpart 17.5 (prescribing policies and procedures regarding interagency acquisitions).

128 Solicitations, in the context of the FAR, are "any request to submit offers or quotations to the Government." FAR 2.101.

129 41 U.S.C. § 3306(b)(1)(A); FAR 15.203(a)(4); 41 U.S.C. § 3701(a); FAR 15.305(a).

information from prospective offerors so that offerors can design their proposals around the appropriate solicitation requirements.

From a legal standpoint, CICA requires that all evaluation factors used to assess proposals be included in the solicitation.[130] A contracting officer cannot base source selection on any factors not expressly contemplated in the solicitation.[131] Thus, CICA's solicitation requirements, reflected in FAR 15.203(a)(4), already provide the regulatory framework that would require incorporating the social cost of greenhouse gases at the solicitation stage.[132] No additional regulation of the solicitation process would be needed.

3. Evaluation

The evaluation phase of the procurement process is where the contracting officer or other source selection authority would compare the relative social cost of greenhouse gases for each proposal submitted by an offeror. As such, the FAR should require that the social cost of greenhouse gases be used as an evaluation factor in every acquisition.

Prior to the FAR Part 15 rewrite in 1997,[133] FAR 15.605(b)(1)(iv) mandated: "Environmental objectives, such as promoting waste reduction, source reduction, energy efficiency, and maximum practicable recovered material content . . . shall also be considered in every source selection, when appropriate."[134] Unfortunately, the 1997 rewrite removed environmental objectives from the list of mandatory evaluation criteria in negotiated procurements.[135]

In the current iteration of the FAR, section 15.304 contains an equivalent list of mandatory evaluation factors for negotiated procurements, and the previous mention of environmental objectives is absent.[136] The current mandatory evaluation factors include "[p]rice

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130 41 U.S.C. § 3306(b)(1)(A); FAR 15.203(a)(4).

131 The contracting officer must always evaluate offers in the manner the solicitation indicates, whether the solicitation is an invitation for bids ("IFB") or a request for proposals ("RFP"). 41 U.S.C. § 3701(a) ("An executive agency shall evaluate sealed bids and competitive proposals, and award a contract, based solely on the factors specified in the solicitation."); FAR 15.305(a); *see also, e.g.*, EFS Ebrex SARL, B-416076, 2018 CPD ¶ 201 (Comp. Gen. June 4, 2018) (sustaining a post-award protest because purchasing agency's source selection decision applied evaluation factors not stated in the solicitation).

132 *See* 41 U.S.C. § 3306(b)(1)(A); FAR 15.203(a)(4).

133 62 Fed. Reg. 51,224 (Sept. 30, 1997).

134 FAR 15.605(b)(1)(iv) (1996).

135 *See* FAR 15.304(c) (1997); Schooner & Speidel, *supra* note 51, at 38 & n.36.

136 *See* FAR 15.304(c).

or cost to the Government,"[137] "quality of the product or service"[138] "[p]ast performance,"[139] and "small business subcontracting participation in the subcontracting plan."[140]

FAR 15.304 should reincorporate environmental objectives as a mandatory evaluation factor and specifically mention the social cost of greenhouse gases by adding the following language: "Environmental impact, including the social cost of greenhouse gases, shall be considered in every source selection, when appropriate."[141]

This environmental impact evaluation factor should contain a subdivision that describes the SC-GHG metric and prescribes its use as the default method for considering the social cost of greenhouse gases in every source selection.[142]

4. Quality Assurance

Even if contracting officers successfully prioritize greenhouse gas emissions and select contractors based on comparative evaluation of the social cost of greenhouse gases, the above recommendations will likely fail to meaningfully reduce the government's greenhouse gas emissions without quality assurance mechanisms to verify that emissions estimates at the source selection stage reasonably correspond with actual contract performance.

The FAR implementation of the Small Business Act provides an example of how verification mechanisms can work in practice.[143] Small business set-asides rely on representations by offerors about the size of their business, and the acquisition process includes mechanisms for maintaining the integrity of those representations.[144] Likewise here, incorporating the social cost of greenhouse gases will require representations by offerors of their Scope 1, Scope 2, and Scope 3 green-

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137 FAR 15.304(c)(1).

138 FAR 15.304(c)(2).

139 FAR 15.304(c)(3)(i).

140 FAR 15.304(c)(4).

141 To be clear, this Note suggests requiring evaluation of environmental impact *in addition to* the existing mandatory evaluation factors. As such, it may be possible for a source selection authority to conclude that a more environmentally damaging proposal will provide the best value to the government even after weighing the social cost of greenhouse gases. Differences in price or quality, for example, may outweigh the differences in environmental impact. Critically, though, environmental impact would always play a role in the selection process even if it did not tip the scales in every acquisition.

142 *See supra* Section II.C.1.

143 *See generally* FAR subpart 19.3 (prescribing the process for determining and reporting small business status).

144 *See id.*

house gas emissions. Without protest mechanisms designed to push back against erroneous greenhouse gas emissions representations—whether intentionally misleading or merely careless—agency reliance on contractor representations may lead to arbitrary, inaccurate, and potentially regime-damaging results.[145]

FAR Part 46 "prescribes policies and procedures to ensure that supplies and services acquired under Government contract conform to the contract's quality and quantity requirements."[146] The procedures and provisions of FAR Part 46 should be expanded to expressly incorporate greenhouse gas emissions as a default contract quality requirement that is subject to inspection.[147] Due to the potential complexity of verifying greenhouse gas emissions, purchasing agencies should identify and recommend acceptable independent verifying bodies that can evaluate contractors' performance in light of emissions estimates.[148]

As greenhouse gas accounting methodologies mature and the private and public sectors gain expertise and familiarity with quantifying Scope 1, Scope 2, and Scope 3 emissions, appropriate assessment and verification methods will likely evolve as well. As such, contracting

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145 *See, e.g.*, John Gardella, *Greenwashing and the SEC: The 2022 ESG Target*, NAT'L L. REV. (Jan. 18, 2022), https://www.natlawreview.com/article/greenwashing-and-sec-2022-esg-target; [https://perma.cc/YQ2Z-UNMB]; *see also* Adam Hayes, *What is Greenwashing? How It Works, Examples, and Statistics*, INVESTOPEDIA (Nov. 8, 2022), https://www.investopedia.com/terms/g/greenwashing.asp [https://perma.cc/X532-7CRH] ("Greenwashing is the process of conveying a false impression or misleading information about how a company's products are environmentally sound."); Kate Bailey, *It's Time to Remove the Recycling Symbol from Plastics*, WASTE360 (Nov. 16, 2020), https://www.waste360.com/plastics/its-time-remove-recycling-symbol-plastics-commentary [https://perma.cc/3C7C-HUN8] (describing how manufacturers' inaccurate representations of product recyclability undermines consumer participation in recycling efforts).

146 FAR pt. 46.

147 *See* FAR 46.201 (describing the general contract quality requirements and inspection expectations to which this Note proposes greenhouse gas emissions verification should be added).

148 *See* FAR 46.103 (describing the contracting office's responsibility to determine and communicate "inspection and testing requirements or . . . a quality assurance surveillance plan" during the contract formation process); FAR 46.104 (describing the administrative contracting officer's responsibility to apply the quality assurance procedures in accordance with the direction of the of the contracting office); FAR 46.105 (describing the contractor's responsibility to meet its quality assurance obligations). The Science Based Target initiative ("SBTi") is one example of an independent body that performs assessment and validation of greenhouse gas emission targets based on the Greenhouse Gas Protocol standards described in Section II.C.2. *See About Us*, SCI. BASED TARGETS, https://sciencebasedtargets.org/about-us [https://perma.cc/S4ZR-NUPJ]; SCI. BASED TARGETS, SBTI CRITERIA AND RECOMMENDATIONS (5th ed. 2021), https://sciencebasedtargets.org/resources/files/SBTi-criteria.pdf [https://perma.cc/7VF7-GGBR]; *supra* Section II.C.2.

officers need to retain a degree of flexibility.[149] FAR Part 46 should include greenhouse gas emissions verification as a default component of quality assurance procedures while maintaining the ability to incorporate developments in the field of greenhouse gas accounting.

B. Limiting Mandatory Consideration of the Social Cost of Greenhouse Gases to Contracts Above a Threshold Value

The climate and social benefits of requiring purchasing agencies to consider the social cost of greenhouse gases every time they procure a product or service are clear. The cumulative purchasing power of the federal government can mitigate—or intensify—anthropogenic contributions to climate change though greenhouse gas emissions.[150] In some circumstances, however, the procedural downsides may outweigh those benefits. Most notably, determining the social cost of greenhouse gases requires thorough greenhouse gas emissions estimates by prospective contractors, and emissions estimates require time, resources, and expertise. For some firms hoping to sell to the government, those increased transaction costs may become prohibitively high.[151]

To limit the negative impact of higher transaction costs on competition—and consequently on price, quality, and transparency[152]—the FAR Council should establish a dollar threshold below which acquisitions are exempt from mandatory evaluation of the social cost of greenhouse gases.[153] Requiring purchasing agencies to consider the so-

149 *See* FAR 46.201(a) ("The type and extent of contract quality requirements needed depends on the particular acquisition and may range from inspection at time of acceptance to a requirement for the contractor's implementation of a comprehensive program for controlling quality.").

150 *See* Schooner, *supra* note 64, at 108–09.

151 *See* Ferraz de Campos & Marotti de Mello, *supra* note 116, at 87, 96.

152 *See* Schooner, *supra* note 64, at 104–06 (explaining the interconnectedness of procurement policies that the government must balance in every acquisition).

153 This Note does not intend to disregard the substantial climate impact of the enormous number of smaller contracts the government enters into each year. *See Advanced Search*, USASPENDING.GOV, https://www.usaspending.gov/search/?hash=B143c69929a4dcb8f0b2a6c1649e402d [https://perma.cc/569W-VPJW] (select "Start Searching Awards," filter for awards from "FY 2020" under the "Time Period" dropdown, and filter for "$1,000,000 & Under" under the "Award Amount" dropdown) (showing 5,410,618 contracts awarded in Fiscal Year 2020 for $1 million or less). There are more efficient ways to internalize the environmental effects of smaller contracts through, for example, eco-labels and the GSA Advantage! Environmental Aisle. *See Introduction to Ecolabels and Standards for Greener Products*, EPA, https://www.epa.gov/greenerproducts/introduction-ecolabels-and-standards-greener-products [https://perma.cc/9A33-T2EX]; *GSA Advantage! Environmental Program Aisle*, GEN. SERVS. ADMIN., https://www.gsaadvantage.gov/advantage/search/specialCategory.do?cat=ADV.ENV [https://perma.cc/QE73-

cial cost of greenhouse gases for high dollar value contracts will maximize the government's climate change mitigation efforts while minimizing negative impacts on competition. Furthermore, high dollar value contracts generally attract large, well-established contractors that are more likely to have sophisticated compliance regimes in place and the capacity to provide and verify greenhouse gas estimates in their proposals.[154]

The FAR System already recognizes the value in streamlining acquisition procedures for relatively smaller contracts in its simplified acquisition[155] and micro-purchase procedures.[156] Purchases below the simplified acquisition threshold of $250,000,[157] for example, are subject to simplified contracting procedures to "promote efficiency and economy in contracting and to avoid unnecessary burdens for agencies and contractors."[158]

By mandating that purchasing agencies evaluate offers in light of the estimated social cost of the proposals' expected greenhouse gas emissions while exempting acquisitions below the specified dollar threshold, the government will maximize its climate change mitigation efforts while minimizing detrimental side effects.

Conclusion

Slowing the progression of climate change will require a combination of top-down commitment from political leadership and clear regulatory requirements that ensure the incorporation of environmental concerns into the federal government's largest acquisitions. President Biden has signaled political commitment to wielding the federal gov-

3JDL]. Moreover, purchasing agencies could still *choose* to evaluate the social cost of greenhouse gases for acquisitions below the threshold if market research indicated that doing so would be appropriate.

154 *See* Christopher R. Yukins, *Mandatory Disclosure: A Case Study in How Anti-Corruption Measures Can Affect Competition in Defense Markets*, *in* Ethical Dilemmas of the Global Defense Industry (Daniel E. Schoeni & Tobias Vestner eds., forthcoming 2023) (explaining that mandatory disclosure requirements can harm competition because effective compliance programs are extremely expensive and therefore favor large, established contractors).

155 *See* FAR pt. 13 (prescribing simplified acquisition procedures for acquisitions below the simplified acquisition threshold of $250,000); FAR 2.101 (defining the simplified acquisition threshold).

156 *See* FAR subpart 13.2 (prescribing acquisition procedures for acquisitions below the micro-purchase threshold); FAR 2.101 (defining the micro-purchase threshold).

157 The default threshold is $250,000; there are other simplified acquisition threshold amounts applicable in specific circumstances described in the FAR. *See* FAR 2.101.

158 41 U.S.C. § 3305(a); *see also* FAR 13.002 (citing also the reduction of administrative costs and improvement of opportunities for small and disadvantaged businesses "to obtain a fair proportion of Government contracts").

ernment's massive purchasing power to mitigate anthropogenic climate change. This Note recommends updating the regulatory framework in the FAR to lock in the Administration's political commitment by incorporating the social cost of greenhouse gases into the acquisition planning, solicitation, proposal evaluation, and quality assurance phases of the procurement process. To prevent undue burdens on small acquisitions for which marginal environmental benefits may not outweigh increased transaction costs, this Note further suggests limiting mandatory incorporation to high-value contracts above a specified dollar threshold.

This Note does not attempt to address the myriad parallel efforts that the acquisition community should take, especially in the short term, to proactively incorporate environmental sustainability principles into its procurement practices. Contracting officers and project managers should use their discretion to prioritize acquisitions with low greenhouse gas emissions, but the government also should not indefinitely depend on agency discretion, especially when large acquisitions are at stake. Public procurement practitioners and academics should continue identifying and promoting short- and medium-term best practices. This Note aims to get the ball rolling toward the long-term, dependable, *mandatory* consideration of the social cost of greenhouse gases in the federal procurement process.