THE MILITARY-ENVIRONMENTAL COMPLEX AND THE COURTS

SARAH E. LIGHT*

I. INTRODUCTION

I am delighted to have been invited to contribute to this Symposium on the important topic of *Environmental Law Without Courts*. In this essay, I discuss a form of environmental governance—what I have called the *military-environmental complex*[1]—that holds the potential to transform for the better our nation's energy profile both by reducing fossil fuel use and stimulating the development and diffusion of climate-positive technology and values.

The military-environmental complex is the Department of Defense's (DoD) active pursuit, at times with Congress, the President, and the private sector, of ways "to improve its sustainable

* Assistant Professor of Legal Studies and Business Ethics, The Wharton School, University of Pennsylvania. Thanks to participants in the *Environmental Law Without Courts* Symposium, Shi-Ling Hsu, Eric Orts, Arden Rowell, Richard Shell, David Zaring, and the student editors of this *Journal* for their comments on earlier drafts of this essay. Thanks also to Jennifer Ko and Adam Tsao for helpful research assistance. All errors are my own.

1. Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014) [hereinafter Light, *The Military-Environmental Complex*]; Sarah E. Light, *Valuing National Security: Climate Change, the Military, and Society*, 61 UCLA L. Rev. 1772, 1778 (2014) [hereinafter Light, *Valuing National Security*] (proposing the hypothesis that the military-environmental complex may have important spillovers in the realm of values, and that framing climate change as a national security concern may affect the "attitudes of individuals who, because of their existing values or political ideologies, would not otherwise" support climate policy).

energy use and reduce demand for fossil-fuel-derived energy—both in military operations and in military installations."[2] Despite its alignment with these important and timely environmental goals, the military-environmental complex is not motivated by concern for the environment. Rather, its driving force is the national security interest of the United States.[3] Reducing fossil fuel use in military operations, for example, can save soldiers' lives by decreasing the number of fuel convoys that are vulnerable to attack.[4] Finding alternative sources of electricity to power DoD's military installations can protect those installations and their critical missions from attacks on the conventional electric power grid.[5] Mitigating climate risks can reduce the potential that the U.S. military will be called upon to address climate-related threats abroad, including the problems of climate refugees, conflicts fueled by climate-related weather disasters such as droughts, or the need to police new areas of the Arctic that are exposed by the loss of sea ice.[6] As DoD did with technologies originally developed for military use in the twentieth century, such as the Global Positioning System (GPS), the internet, and computers, the military-environmental complex can stimulate the development and diffusion to ordinary consumers of technology that can reduce fossil fuel use and mitigate climate impacts.[7] Repeated and sustained interactions among these public and private institutions can likewise lead to the exchange of ideas, best practices, and technologies.[8]

Why is this important? Arguably, DoD support for climate policy and action may have just become more important with the recent change in administration. The new Trump Administration has begun the process of reviewing and attempting to roll back a number of environmental regulations, including the Clean Power

2. Light, *The Military-Environmental Complex*, *supra* note 1, at 884–85.
3. *Id*. at 885.
4. *Id*. at 893.
5. *Id*. at 894.
6. *Id*. (citing U.S. DEP'T OF DEF., QUADRENNIAL DEFENSE REVIEW REPORT, at vi (2014), http://www.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf, *archived at* http://perma.cc/4JV8-TKER; U.S. DEP'T OF DEF., QUADRENNIAL DEFENSE REVIEW REPORT, at iii, 84–88 (2010), http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf, *archived at* http://perma.cc/DLM6-474Z).
7. *Id*. at 897. While some technologies may be developed for military use and then "spin off" into the private consumer world, in other cases, technologies developed in the civilian world can likewise "spin on" into the military domain. *See id*. at 882 n.13 (citing Jay Stowsky, *From Spin-Off to Spin-On: Redefining the Military's Role in American Technology Developmen*t, *in* THE HIGHEST STAKES: THE ECONOMIC FOUNDATIONS OF THE NEXT SECURITY SYSTEM 114–40 (Wayne Sandholtz et al. eds., 1992) (describing military reliance on civilian technology as a form of "spin-on")).
8. *Id*. at 896.

Plan.[9] The Administrator of the U.S. Environmental Protection Agency (EPA) has questioned whether human activity actually plays a role in causing climate change.[10]

In sharp contrast, the Secretary of Defense, James Mattis, stated in written testimony to the Senate during his confirmation hearings that the effects of climate change "such as increased maritime access to the Arctic, rising sea levels, desertification, among others—impact our security situation."[11] He stated that climate change requires a "broader, whole-of-government response."[12] In March, 2017, seventeen Republicans in the House introduced a resolution calling upon Congress to recognize and commit to addressing climate change.[13] That resolution cites DoD's 2014 Quadrennial Defense Review, which reiterated DoD's view that the effects of climate change act as "threat multipliers" and raise national security concerns.[14] It remains to be seen how this view within DoD and among other members of Congress that climate change raises national security concerns may affect broader climate policies within the new administration, including within other agencies, and most importantly, within EPA.[15] And while much of the debate over climate policy is currently playing out within the political branches, it remains to be seen how the courts will respond to the efforts of the new administration to rescind, reverse, or alter the climate policies adopted under the Obama Administration.

This change in administration places into the foreground one of the essential roles that courts play: moderating the policy swings within the political branches. This essay therefore takes up both the descriptive and normative questions of whether there is, or should

---

9. Executive Order 13,783 on *Promoting Energy Independence and Economic Growth* (Mar. 28, 2017), https://www.whitehouse.gov/the-press-office/2017/03/28/presidential-executive-order-promoting-energy-independence-and-economi-1 (rescinding the prior administration's Climate Action Plan, revoking various executive orders, and directing agencies to review environmental regulations with an eye toward rescissions).

10. Chris Mooney & Brady Dennis, *On Climate Change, Scott Pruitt Causes an Uproar—and Contradicts the EPA's Own Website*, WASH. POST (Mar. 9, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/03/09/on-climate-change-scott-pruitt-contradicts-the-epas-own-website/?utm_term=.f082f309af9f (quoting Pruitt as saying "I would not agree that [human activity is] a primary contributor to the global warming that we see").

11. Sam Mintz, *Pentagon Must Plan for Global Warming—Mattis*, E&E NEWS (Mar. 14, 2017), https://www.eenews.net/eenewspm/2017/03/14/stories/1060051450.

12. *Id.*

13. H. R. 195, 115th Cong. 1st sess. (Mar. 13, 2017).

14. *Id.* at 2.

15. Sam Mintz, *Experts Debate Trump Order's Impact on Security Coordination*, GREENWIRE (Mar. 29, 2017), https://www.eenews.net/greenwire/2017/03/29/stories/1060052281 (noting that at least some "conservative lawmakers and advocates have questioned whether climate work should be in the purview of defense and security agencies at all").

be, any role for courts to play in policing the military-environmental complex.

In the context of what we ordinarily think of as "environmental law," namely, federal environmental statutes like the Clean Air Act,[16] the Clean Water Act,[17] and the National Environmental Policy Act (NEPA),[18] and agency regulations interpreting those federal statutes, courts play a crucial role. The judiciary ensures legitimacy of regulatory action by evaluating whether agency regulations or interpretations are consistent with statutory delegations of authority from Congress.[19] And the judiciary promotes durability and consistency of agency action, as well as respect for the rule of law, by ensuring that agencies cannot repeal existing rules without following proper procedures under the Administrative Procedure Act (APA).[20] While this review is deferential, judicial review exists, and courts have rejected efforts by agencies to consider non-statutory factors like the country's negotiating position on international climate agreements in declining to address greenhouse gas emissions.[21]

In contrast, the judiciary is often asked to defer to the Executive Branch's conclusion that the national security interest of the United States is at stake. In the past, such deference led to one of the most reviled Supreme Court decisions within the "anti-canon," *Korematsu v. United States*, in which the Court held that the country's national security interest trumped even important constitutional values like individual liberty.[22] More recently, however, the judiciary has taken a somewhat more limited view, rejecting requests

16. 42 U.S.C. §§ 7401–7671q (2012).

17. 33 U.S.C. §§1251–1388 (2012).

18. 42 U.S.C. §§ 4321–4347 (2012).

19. 5 U.S.C. § 706 (2012) (courts "shall" set aside agency action that is "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;" or "in excess of statutory jurisdiction, authority, or limitations," among other bases).

20. *See, e.g.*, Motor Vehicle Manufacturers Ass'n v. State Farm, 463 U.S. 29 (1983) (holding that to repeal a regulation promulgated pursuant to notice-and-comment procedures under the APA, the agency must engage in notice-and-comment rulemaking).

21. Massachusetts v. EPA, 127 S.Ct. 1438 (2007).

22. Korematsu v. United States, 323 U.S. 214, 218 (1944). The Supreme Court upheld the detention of U.S. citizens of Japanese descent based on the statements of the military that this action was in the national security interest:

> The military authorities, charged with the primary responsibility of defending our shores, concluded that curfew provided inadequate protection and ordered exclusion. . . . We cannot say that the war-making branches of the Government did not have ground for believing that in a critical hour such persons could not readily be isolated and separately dealt with, and constituted a menace to the national defense and safety, which demanded that prompt and adequate measures be taken to guard against it.

to defer entirely to the Executive Branch when it invokes national security concerns.[23] And in the more mundane regulatory context, Congress has circumscribed the judiciary's role in reviewing rulemakings that involve "a military or foreign affairs function of the United States" pursuant to the APA.[24]

In order to understand the role that courts actually play in the military-environmental complex, it is first necessary to unpack more precisely what the military-environmental complex is. Part II of this essay therefore demonstrates that the military-environmental complex comprises many elements, one of which is environmentally preferable procurement rules for goods, services, and energy generation technology.[25] Some aspects of green procurement are statutory, leaving courts a more limited role, while others are regulatory, or based in executive orders. To the extent that they are grounded in regulations, the APA exemption for rulemakings involving a "military or foreign affairs function" is less important than the APA exemption for any "matter relating to agency management or personnel or to public property, loans, grants, benefits, or contracts."[26]

The military-environmental complex goes beyond procurement, however. Part III demonstrates that it also includes military initiatives to stimulate the development of new technologies to meet national security needs, including through the use of competitive prizes for technological innovation. And it includes the iterative

---

Id. For the argument that the *Korematsu* decision is part of the "anti-canon" of constitutional law, see Richard Primus, *Canon, Anti-Canon, and Judicial Dissent*, 48 DUKE L.J. 243, 276 (1998).

23. For example, the Supreme Court has held that federal courts have jurisdiction to consider habeas petitions from U.S. citizens detained as "enemy combatants," Hamdi v. Rumsfeld, 542 U.S. 507, 535 (2004) (rejecting the view that Congressional authorization to hold U.S. citizens as "enemy combatants" deprives these citizens of their due process right to challenge their detentions before a neutral decisionmaker); and that the judiciary likewise has jurisdiction to consider such petitions from foreign citizens held at Guantanamo Bay, *see* Rasul v. Bush, 542 U.S. 466, 483 (2004).

24. 5 U.S.C. §§ 553(a)(1)–(2) (2012). For a discussion of the history and scope of the military function exemption within the APA, *see* Kathryn E. Kovacs, *A History of the Military Authority Exception in the Administrative Procedure Act*, 62 ADMIN. L. REV. 673 (2010); Adrian Vermeule, *Our Schmittian Administrative Law*, 122 HARV. L. REV. 1095, 1112–15 (2009) (noting the lack of clarity on "what counts as a military or foreign affairs function," and that the "committed to agency discretion" exemption is read "quite capaciously in national security contexts"). The APA likewise does not apply to adjudications that involve "the conduct of military or foreign affairs functions," though none of these actions within the military-environmental complex would qualify as an adjudication. 5 U.S.C. § 554(a)(4) (2012).

25. Both in the United States and around the world, governments are adopting environmentally preferable purchasing rules to drive environmental change within supply chains. For a general discussion of "green" procurement rules, *see* Sarah E. Light & Eric W. Orts, *Public and Private Procurement in Environmental Governance*, *in* POLICY INSTRUMENTS IN ENVIRONMENTAL LAW (Ken Richards & Josephine van Zeben, eds., Edward Elgar, forthcoming) [hereinafter Light & Orts, *Procurement*].

26. 5 U.S.C. §§ 553(a)(1)–(2) (2012).

human interactions between leaders in government and the private sector, including universities, to develop and share both technology and energy management best practices. Part III highlights three examples of the military-environmental complex in action: (1) the use of long-term power purchase agreements to develop renewable electricity generation capacity on military installations at private expense; (2) the use of competitive prizes or awards to stimulate the development of new technologies with promise to address environmental concerns, such as autonomous vehicles; and (3) the operationalization of human interaction between DoD and the private sector regarding best practices and innovation, such as through DoD's recent creation of the Defense Innovation Advisory Board.

Part IV then demonstrates that the judiciary has played a limited role in supervising the military-environmental complex. These informal interactions and prizes are rarely the subject of litigation in the courts. And while procurement decisions are subject to their own legal rules and doctrines, challenges to such decisions have likewise been rare, and the judiciary is deferential to the agency. To date, only one complaint has been filed challenging the development of renewable energy at a state Air National Guard base.[27]

As a normative matter, I argue that the lack of judicial involvement contributes to the military-environmental complex's greatest strength—its nimble ability to address climate change from a different perspective than that of traditional environmental law, even in the face of skepticism about climate policy within other branches of government. Yet the lack of judicial supervision may also render some aspects of the military-environmental complex less durable than traditional environmental law in other ways—especially those aspects of green procurement that are grounded in executive orders. And though the goals of reducing energy use and national security are aligned right now—at least from DoD's perspective—those goals might at some point diverge.[28] Unlike other forms of environmental law that are more durable as a result of judicial review requiring the adherence to particular procedures for the purpose of achieving environmental goals or requirements set by Congress, some aspects of the military-environmental complex may be more easily undone or reversed if a new national security problem becomes paramount, because its locus of control lies within

27. American Bird Conservancy v. Disbrow et al., No. 17-Cv-0547 (filed Mar. 27, 2017, D.D.C.).

28. *Cf., e.g.*, Winter v. Nat. Res. Def. Council, 555 U.S. 7, 33 (2008) (holding that Naval sonar training with the potential to harm marine mammals cannot be enjoined pending completion of environmental review if enjoining the training would threaten national security).

the coordinated political branches of government. The lesson to take from all of this is that the military-environmental complex is an important and underappreciated form of environmental governance, especially when there is retrenchment within other agencies like EPA on climate policy. But it cannot fully replace traditional environmental law in the form of federal environmental statutes and regulations, which are more durable in other ways.

II. THE MILITARY-ENVIRONMENTAL COMPLEX: GREEN PROCUREMENT AND BEYOND

A. Procurement as a Tool of Environmental Governance

DoD's use of environmentally preferable purchasing rules is a significant aspect of the military-environmental complex. But governments around the world—not just the military—have increasingly employed "green procurement" as a form of environmental governance. This section addresses the impact of green procurement in general, while the next section looks more specifically at DoD green procurement rules and practices.

Procurement can have a significant impact on the environment.[29] In 2013, member countries within the Organisation for Economic Co-operation and Development (OECD) spent an average of 12.1 percent of their gross domestic products (GDP) on government procurement.[30] In 2013, the United States spent 10 percent of its GDP on procurement.[31] DoD plays a dominant role in federal government procurement in the United States, especially with respect to energy. It is the single largest consumer of energy in the nation, responsible for more than three-quarters of all government

29. *See* Sarah E. Light & Eric W. Orts, *Parallels in Public and Private Environmental Governance*, 5 MICH. J. ENVTL. & ADMIN. L. 1 (2015) (arguing that both public procurement and private supply chain management are important tools of environmental governance) [hereinafter Light & Orts, *Parallels*]. Government procurement—based on actual government demand for goods, services, or energy—is distinct from other forms of environmental governance like subsidies or prescriptive rules, and should not be conflated with these other tools of governance. *See id*. at 47; *See also* Light & Orts, *Procurement*, *supra* note 25 (discussing environmental procurement in the United States and the European Union as a significant tool of environmental governance). Of course, governments use procurement to implement other, non-environmental social goals as well. For example, there are preferences in government procurement for small businesses. *See* 15 U.S.C. §§ 631–50 (2000); GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 19.201 (2016).

30. OECD, *Size of Public Procurement*, GOVERNMENT AT A GLANCE (2015). For a list of member countries, *see Members and Partners*, OECD, http://www.oecd.org/about/membersandpartners/ (last visited Apr. 17, 2017).

31. *Id.*

energy use.[32] It is also the second largest purchaser of renewable energy in the country, after Google/Alphabet.[33]

The increasing adoption by governments around the world, and by DoD in particular, of environmentally preferable purchasing rules can have a significant impact on the natural environment, on government itself, and on the private sector.[34] Public procurement at this scale can create significant, concentrated demand for goods, services, and sources of energy with certain environmental characteristics.[35] This concentrated government demand can provide necessary capital to develop new technologies at a perilous time in their development—during the so-called "Commercialization Valley of Death"—when neither risk-averse commercial lenders nor risk-prone venture capital firms are willing to provide financing.[36] Empirical studies have demonstrated that government procurement can stimulate technological innovation more effectively than general government subsidy programs.[37] And environmental procurement also can have significant "spillover" effects on private actors. One recent study has demonstrated, for example, that municipal adoption of a requirement that *government* buildings be certified under the Leadership in Energy and Environmental Design (LEED) standards increased *private* adoption of LEED in neighboring communities.[38] When procurement rules are focused on reducing energy use, in addition, such rules can reduce energy costs for government agencies. This last factor may be especially compelling in times of shrinking agency budgets.

---

32. Energy Info. Admin., *Defense Department energy use falls to lowest level since at least 1975*, TODAY IN ENERGY (Feb. 5, 2015), http://www.eia.gov/todayinenergy/detail.cfm?id=19871.

33. Eric Roston & Brian Eckhouse, *Waging America's Wars Using Renewable Energy*, BLOOMBERG (July 5, 2016), http://www.bloomberg.com/news/articles/2016-07-05/waging-america-s-wars-using-renewable-energy.

34. Section 201 of Executive Order 13,101 defines "environmentally preferable" goods and services as "products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose." Exec. Order No. 13,101, § 201; 2 L of Purchasing § 34:11 (2d ed.) (2016) (discussing environmentally preferable purchasing by the federal government).

35. Jacob Edler & Luke Georghiou, *Public Procurement and Innovation—Resurrecting the Demand Side*, 36 RES. POL'Y 949–63 (2007) (noting that public procurement stimulates innovation more effectively than subsidies).

36. Light, *The Military-Environmental Complex*, *supra* note 1, at 898; BLOOMBERG NEW ENERGY FINANCE, CROSSING THE VALLEY OF DEATH: SOLUTIONS TO THE NEXT GENERATION CLEAN ENERGY PROJECT FINANCING GAP 1 (2010) (defining the "commercialization valley of death" as a period when neither low-risk seeking bank financing nor high-risk seeking venture capital funds are available for new technology development).

37. Edler & Georghiou, *supra* note 35, at 950–55 (discussing empirical studies on this point).

38. Timothy Simcoe & Michael W. Toffel, *Public Procurement and the Private Supply of Green Buildings*, 68 J. ENVTL. ECON. & MGMT. 411 (2014); *see also* Donald B. Marron, *Buying Green: Government Procurement as an Instrument of Environmental Policy*, 25 PUB. FIN. REV. 285–305 (1997) (discussing spillover effects of environmental procurement).

B. Procurement in the Military-Environmental Complex

Environmentally preferable purchasing rules for goods, services, and energy are a significant aspect of the military-environmental complex. The United States has incorporated environmental preferences for procurement by federal agencies since Congress enacted the Resource Conservation and Recovery Act (RCRA) in 1976.[39] Subsequently, through legislation, executive orders, and amendments to the Federal Acquisition Regulation (FAR), environmentally preferable purchasing rules have expanded to include requirements to purchase products that are designated as bio-based by the U.S. Department of Agriculture,[40] energy-efficient by the Department of Energy,[41] water-efficient by the EPA,[42] and non-ozone-depleting,[43] among other qualities. For example, the Energy Policy Act of 2005 requires agencies to procure energy-efficient products, and to undertake conservation efforts in water use.[44] The Energy Policy Act further requires federal agencies to either generate or purchase electricity from renewable sources in percentages that ratchet upward over time.[45] These statutory and regulatory authorities remain in effect and continue to drive agency action.

What is proving to be less durable, however, are a series of executive orders requiring federal agencies to take environmental action.[46] For example, in the energy and climate context, in 2007, President George W. Bush issued an executive order that required

---

39. Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6962(c) (2014) (requiring purchase of goods with recycled content).

40. Farm Security and Rural Investment Act of 2002, 7 U.S.C. § 8102 (2014).

41. U.S. DEPT. OF ENERGY, ENERGY EFFICIENCY AND RENEWABLE ENERGY: BUY ENERGY-EFFICIENT PRODUCTS: A GUIDE FOR FEDERAL PURCHASERS AND SPECIFIERS (2016), https://energy.gov/sites/prod/files/2016/07/f33/femp_eepp_buyer_overview_1.pdf (discussing Federal Energy Management Program and Energy Star program).

42. GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 23.202 (requiring acquisition of goods and services that are water-efficient and promote innovation on water-efficient technology); *WaterSense*, EPA, https://www3.epa.gov/watersense/ (last visited Apr. 17, 2017) (listing products from faucets to irrigation control techniques that are water-efficient).

43. GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 23.803 (requiring agencies to prefer procurement of non-ozone-depleting substances); *Id.* 23.804 (contract clauses on non-ozone-depleting substances).

44. Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 101–105, 119 Stat. 594, 605–11 (2005) (codified as amended at 42 U.S.C. §§ 8253–8259b); *see also* National Energy Conservation Policy Act, Sec. 553, 42 U.S.C. § 8259(b) (1998).

45. 42 U.S.C. § 15852 (2005).

46. The President can freely revoke prior executive orders by issuing a new executive order. Jack M. Beermann, *Presidential Power in Transitions*, 83 B.U. L. REV. 947, 973, 994–95 (2003). An executive order may be challenged in the courts on the basis that it exceeds the President's authority under a statute or the Constitution. Youngstown Sheet & Tube Co. v. Sawyer, 343 U.S. 579, 585–89 (1952) (striking down President Truman's order seizing private steel mills during a labor dispute).

agencies to reduce energy use in government buildings and to purchase hybrid or electric vehicles.[47] In 2009, President Obama signed Executive Order 13,514 on *Planning for Federal Sustainability in the Next Decade*, which expanded on the Bush Executive Order to set new requirements for the reduction of federal agency energy use.[48] In 2013, President Obama signed Executive Order 13,653 on *Preparing the United States for the Impacts of Climate Change*, which directed federal agencies to promote risk-informed decisionmaking and adaptive learning for climate preparedness and resilience.[49] In 2015, President Obama revoked the Bush executive order and his own prior Executive Order 13,514, with a new order, Executive Order 13,693 on *Planning for Federal Sustainability in the Next Decade*, that went further, requiring agencies to report and reduce greenhouse gas emissions arising out of their own activities, and directing the White House Council on Environmental Quality to publish a "Scorecard" demonstrating whether major government contractors report and set reduction targets for emissions within the federal government's supply chain.[50]

While many of these rules are generally applicable to all federal agencies, because DoD is such a large purchaser of goods, services, and energy, such generally applicable rules tend to have a significant impact on the military and its contractors.[51] For example, the 2016 Federal Supplier Scorecard listed "major suppliers," each of which received at least $500 million in government contracts in the 2015 fiscal year.[52] At least seven of the top ten contractors, and a significant number of the rest, were military contractors.[53]

---

47. Exec. Order No. 13,423, 72 C.F.R. 3919, § 2(d)(g) (2007), *revoked by* Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015).

48. Exec. Order No. 13,514, 74 C.F.R. 52117, § 1 (2009), *revoked by* Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015). *See also* Sarah E. Light, *NEPA's Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 TUL. L. REV. 511, 562 (2013) (discussing Exec. Order No. 13,514).

49. Exec. Order No. 13,653, 78 C.F.R. § 66819 (2013), *revoked by* Exec. Order No. 13,783 (Mar. 28, 2017).

50. Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015), *revoking* Exec. Order No. 13,514, 74 C.F.R. 52117, § 1 (2009), and *revoking* Exec. Order No. 13,423, 72 C.F.R. 3919 (2007), as well as several other Presidential memoranda; *see also* WHITE HOUSE COUNCIL ON ENVTL. QUALITY, IMPLEMENTING INSTRUCTIONS FOR EXEC. ORDER NO. 13,693: PLANNING FOR FEDERAL SUSTAINABILITY IN THE NEXT DECADE (2015).

51. For a discussion of how generally applicable environmental procurement rules may be implemented in the military in practice, see *TJAGSA Practice Note*, ARMY LAWYER 43 (JULY 2001).

52. WHITE HOUSE COUNCIL ON ENVTL. QUALITY, FEDERAL SUPPLIER GREENHOUSE GAS MANAGEMENT SCORECARD (2016), https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/sustainability/supplier-GHG. These Scorecards were deleted from the White House website after the change in administration in January 2017. This citation reflects an archived link to the 2016 Scorecard.

53. *See id*. (listing the top ten government contractors as: Lockheed Martin, Boeing, General Dynamics, Raytheon, Northrop Grumman, McKesson Corp., United Technologies, L-3 Communications, Bechtel, and BAE Systems).

Notably, however, on March 28, 2017, President Trump issued Executive Order 13,783 on *Energy Independence and Economic Growth* that revoked Executive Order 13,653 on *Preparing the United States for the Impacts of Climate Change*.[54] And the 2017 Executive Order likewise revoked a September 2016 Presidential Memorandum on *Climate Change and National Security* to the heads of federal agencies with national security missions that had directed them to establish a framework "to ensure that climate change-related impacts are fully considered in the development of national security doctrine, policies, and plans."[55] However, as of the date of publication, Executive Order 13,693, which most directly targets environmentally preferable purchasing by federal agencies, remains in effect.[56] Thus, while DoD may continue to pursue its national security mission, which is aligned with the environmental goals of reducing fossil fuel use and increasing renewable energy generation capacity in the United States, it is less clear that inter-agency coordination beyond the DoD will continue to take place in this sphere. And the judiciary essentially has essentially no role to play in policing the revocation of these prior executive orders.

Part III describes three different facets of the military-environmental complex that exist largely under the judicial radar: long-term power purchase agreements for renewable energy entered into pursuant to statutory authority; the use of prizes to stimulate the development of new technologies; and human interaction on best innovation practices. None of these has generated significant judicial involvement, as I will demonstrate in Part IV.

III. THREE FACETS OF THE MILITARY-ENVIRONMENTAL COMPLEX

The military-environmental complex includes environmental procurement rules, but is broader than procurement alone. It also encompasses the use of "prizes" like the Defense Advanced Research Projects Agency (DARPA) Grand Challenge, which is widely credited with stimulating the development of autonomous vehicles, and more informal interpersonal interaction between

---

54. *See* Executive Order on *Promoting Energy Independence and Economic Growth*, *supra* note 9.

55. Memorandum for the Heads of Executive Departments and Agencies: Climate Change and National Security (Sept. 21, 2016) (White House, Office of the Press Secretary), *revoked by* Executive Order 13,783 on *Promoting Energy Independence and Economic Growth*, *supra* note 9.

56. The Sabin Center for Climate Change Law at Columbia Law School tracks both regulatory and deregulatory action on climate change, including with respect to executive orders. *Regulation Database – Executive Orders*, COLUMBIA LAW SCHOOL SABIN CENTER FOR CLIMATE CHANGE LAW, http://columbiaclimatelaw.com/resources/climate-deregulation-tracker/database/executive-orders/#13693 (last visited May 2, 2017).

the government and the private sector through programs like the Defense Innovation Board.

A. Traditional Purchasing Power Transformed: Renewable Installation Energy: "25 by 25"

In addition to these generally applicable procurement rules, Congress has given DoD certain unique obligations and authorities with respect to energy. Specifically, Congress has directed DoD "to produce or procure not less than 25 percent of the total quantity of facility energy it consumes within its facilities during fiscal year 2025 and each fiscal year thereafter from renewable energy sources."[57] The Army, Navy, and Air Force have developed plans to reach this "25 by 25" mandate, each service having the responsibility of developing one gigawatt of renewable energy in that timeframe.[58] In addition to this mandate, Congress has given DoD special statutory authority that other federal agencies lack—the authority to enter into thirty-year Power Purchase Agreements (PPA).[59] Under 10 U.S.C. § 2922a, DoD may enter into such PPAs "for the provision and operation of energy production facilities on real property under the Secretary's jurisdiction or on private property and the purchase of energy produced from such facilities."[60] Under a PPA, the federal agency agrees to purchase power for a specified period of time, but a private firm "finances, owns, operates, and maintains" the power generation facility.[61] Other agencies in the federal government can only enter into ten-year power purchase agreements under current law—a timeframe that is less favorable for private developers to recoup their initial investments in renewable energy generation infrastructure.[62] For DoD, renewable energy can promote energy security, resilience, and independence from an aging electric power grid, which is arguably vulnerable to attack.[63]

---

57. 10 U.S.C. § 2911(e) (2012).

58. The White House, *Fact Sheet: Obama Administration Announces Additional Steps to Increase Energy Security* (Apr. 11, 2012), https://www.whitehouse.gov/the-press-office/2012/04/11/fact-sheet-obama-administration-announces-additional-steps-increase-ener. The U.S. Marine Corps is an operating unit within the U.S. Navy. *See U.S. Navy Organization—An Overview*, U.S. Navy, http://www.navy.mil/navydata/organization/org-over.asp, *archived at* http://perma.cc/Z4CN-CMML.

59. 10 U.S.C. § 2922a(a) (2006).

60. 10 U.S.C. § 2922a(a)(2) (2006); Light, *The Military-Environmental Complex*, *supra* note 1, at 926–27 (discussing DoD's unique authority).

61. *Third Party Financing*, U.S. ARMY CORPS OF ENG'RS, http://www.hnc.usace.army.mil/Missions/Installation-Support-and-Programs-Management/Energy-Division/Energy-Landing-page/Third-Party-Financing/ (last visited Apr. 17, 2017).

62. FAR pt. 41.101 (2012); 40 U.S.C. § 501 (2012).

63. ENLISTING THE SUN: POWERING THE U.S. MILITARY WITH SOLAR ENERGY 2013, SOLAR ENERGY INDUSTRYIES ASS'N. (2013), http://www.seia.org/research-resources/enlisting-sun-powering-us-military-solar-energy-2013.

And DoD manages more than 500 installations in the United States and overseas, covering approximately 2.3 billion square feet of building space, yielding potentially significant demand.[64] With DoD budgets subject to political control in an era of cost-cutting, it also helps that the agency need not pay construction or maintenance costs for the generation infrastructure itself.

As a practical matter, the military has used this purchasing authority (along with other statutory authorities), to enter into long-term contracts with private developers who construct large-scale renewable energy generation facilities both on and off of military land.[65] Each branch of the military has created a special office to coordinate with the private sector: the Army Office of Energy Initiatives (OEI),[66] the Navy Renewable Energy Program Office (REPO),[67] and the Air Force Facility Energy Center (AFFEC).[68] These offices have both supported the construction of renewable energy generation facilities and entered into renewable energy PPAs.[69]

To date, there have been almost no legal challenges to these programs in the courts. For example, when the Army issued its Environmental Assessment and Finding of No Significant Impact under NEPA for the construction of large-scale solar arrays on DoD land, only three comments were filed, and only one was arguably negative, contesting the programmatic nature of the assessment.[70] On March 27, 2017, an environmental organization filed suit in the district court for the District of Columbia, challenging the construction of a wind turbine by the Ohio Air National Guard, which is a reserve component of the U.S. Air Force.[71] The suit raises

64. OFFICE OF THE DEPUTY UNDER SEC'Y OF DEF. (INSTALLATIONS & ENV'T), DEPARTMENT OF DEFENSE ANNUAL ENERGY MANAGEMENT REPORT: FISCAL YEAR 2011, at 14 (2012), http://www.acq.osd.mil/ie/energy/library/FY.2011.AEMR.PDF, *archived at* http://perma.cc/8HVW-9P3Q.

65. Light, *The Military-Environmental Complex*, *supra* note 1, at 927–29 (discussing enhanced-use leases, energy savings performance contracts, and utility energy service contracts).

66. *About Us*, U.S. ARMY OFFICE OF ENERGY INITIATIVES, http://www.asaie.army.mil/Public/ES/oei/about.html (last visited Apr. 17, 2017).

67. *Resilient Energy Program Office*, U.S. NAVY—ENERGY, ENVIRONMENT AND CLIMATE CHANGE, http://greenfleet.dodlive.mil/energy/repo-3/ (last visited Apr. 17, 2017).

68. U.S. AIR FORCE, AIR FORCE RENEWABLE ENERGY PROGRAMS (2011), http://energy.gov/sites/prod/files/2013/10/f4/fupwg_spring11_gray.pdf.

69. *Id.*; AMANDA SIMPSON, U.S. ARMY OFFICE OF ENERGY INITIATIVES, FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR 1, 8 (2014), http://energy.gov/sites/prod/files/2014/12/f19/fupwg_fall14_simpson.pdf; *Resilient Energy Program Office*, U.S. NAVY—ENERGY, ENVIRONMENT AND CLIMATE CHANGE, http://greenfleet.dodlive.mil/energy/repo-3/ (last visited Apr. 17, 2017).

70. U.S. Army, FINDING OF NO SIGNIFICANT IMPACT FOR CONSTRUCTION AND OPERATION OF SOLAR PHOTOVOLTAIC RENEWABLE ENERGY PROJECTS ON ARMY INSTALLATIONS (2017), https://www.aec.army.mil/Portals/3/nepa/SolarPV_PEA_FNSI.pdf.

71. *See* American Bird Conservancy v. Disbrow et al., No. 17-Cv-0547 (filed Mar. 27, 2017, D.D.C.).

claims under both NEPA and the Endangered Species Act.[72] NEPA review is both deferential and procedural; a court cannot order an agency not to undertake an action as long as it has complied with the relevant analysis and disclosure procedures.[73] In contrast, if an agency has violated the Endangered Species Act, a court can order the agency to halt its action.[74] It remains to be seen how this litigation will play out, or if other suits will be filed. To date, however, no court has limited DoD's ability to meet its "25 by 25" Congressional mandate.

B. Prizes for Innovation: The DARPA Grand Challenge

A very different facet of the military-environmental complex is the use of prizes. This method is likewise driven by the national security interest—the military offers a "prize" for the development of technology that it may seek to purchase in the future. But the military is not purchasing anything *today*. Rather, prizes can stimulate the development of technologies that may still take time to be available for military or commercial use. Thus, prizes go beyond procurement.

DoD has used prizes in many contexts, including to stimulate the development of technologies that can reduce energy use. For example, in 1990 Congress created the Strategic Environmental Research and Development Program (SERDP),[75] which offers financial support for research and development of technologies that "enhance the capabilities of the departments to meet their environmental obligations."[76] And while the focus is not always intentionally on technologies with environmentally positive qualities, there are times that military prizes can stimulate the development of technologies that are likely to have a positive environmental impact.

A recent example is the DARPA Grand Challenge, which was a milestone in the development of autonomous vehicle (AV) technology. In 2001, Congress mandated that "by 2015, one-third of operational ground combat vehicles [be] unmanned."[77] And in the National Defense Authorization Act (NDAA) for the 2003 fiscal year, Congress authorized DoD to award cash prizes "to promote science, mathematics, engineering, or technology education in

72. *Id.*

73. Robertson v. Methow Valley Citizens Council, 490 U.S. 332 (1989).

74. Tenn. Valley Auth. v. Hill, 437 U.S. 153 (1978).

75. National Defense Authorization Act for Fiscal Year 1991, Pub. L. No. 101-510, § 1801(a), 104 Stat. 1485, 1750–57 (1990) (codified as amended at 10 U.S.C. § 2901–04 (2012)).

76. 10 U.S.C. § 2901(b)(1) (2012); Light, *The Military-Environmental Complex*, *supra* note 1, at 924–25 (discussing SERDP).

77. National Defense Authorization Act for Fiscal Year 2001 (S. 2549, Sec. 217).

support of [DoD's] missions."[78] While the military desires the development of AV technology to promote its national security interests, including reducing the loss of life on the battlefield through greater use of unmanned vehicles,[79] AVs hold significant potential to reduce fossil fuel use in civilian transportation. There are several ways in which AVs may reduce fossil fuel use.[80] First, AVs may facilitate the optimization of vehicle speeds through the use of "platooning" in ways that will increase fuel economy.[81] Platooning can reduce the distance between vehicles and increase travel lane capacity.[82] The theory goes that this will increase fuel economy by decreasing vehicle congestion on highways. A smoother traffic flow (even if it is at a lower "peak" speed), can improve vehicle fuel economy by allowing vehicles to travel, on average, at a higher "effective" speed.[83] Second, if as advocates contend, AVs can reduce the risk of accidents, cars can be made of lighter materials.[84] Lighter cars require less power to operate, which likewise can reduce fuel consumption and facilitate greater use of electric or alternative fuel vehicles.[85] Lighter vehicles require smaller electric batteries than heavier vehicles to go the same distance, which can, in turn, lower the cost of electric vehicles for ordinary consumers.[86] Smaller batteries also have a lesser environmental impact from disposal at the end of their lifecycle than larger batteries.[87] There are many unknowns about how AV technology will develop, however. It remains possible that if AVs reduce the costs associated with driving (for example, by permitting drivers to read or work while commuting), they may increase vehicle miles traveled and suburban "sprawl."[88]

In 2004, DARPA inaugurated its first "Grand Challenge" to stimulate the development of AVs.[89] It offered $1 million to the first team whose AV could cross the finish line of a 142-mile course

78. National Defense Authorization Act for Fiscal Year 2003 (H.R. 4546, Sec. 2374b).

79. *See* PETER W. SINGER, WIRED FOR WAR: THE ROBOTICS REVOLUTION AND CONFLICT IN THE 21ST CENTURY (2009) (discussing the military's role in stimulating the development of robotic technologies).

80. JAMES M. ANDERSON, ET AL., AV TECHNOLOGY: A GUIDE FOR POLICYMAKERS (Rand Corp. eds. 2016).

81. *Id.* at 21–22.

82. *Id.* at 30.

83. *Id.*

84. *Id.* at xvi, 5, 30.

85. *Id.* at 30.

86. *Id.* at 34.

87. *Id.*

88. *Id.* at 37.

89. *Overview*, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY, http://archive.darpa.mil/grandchallenge05/overview.html (last visited Apr. 17, 2017); Defense Advanced Research Projects Agency, *Robotics Technology Increasingly Important to Department of Defense*, http://archive.darpa.mil/grandchallenge04/media/fut_military_rel.pdf (last visited Feb. 11, 2017).

through the Nevada desert.[90] None of the fifteen teams that entered the Challenge passed mile eight.[91] In 2005, DARPA offered $2 million to the winning team in the second Grand Challenge on a 132-mile course, again through the Nevada desert.[92] Five teams completed the course, and the winning team completed the course in just under seven hours.[93] In 2007, DARPA offered $2 million to the winner of the Urban Challenge—the next phase of AV development.[94] The Urban Challenge required teams to build an AV that could navigate in an urban environment, facing such complex situations as merging lanes, parking, and crossing intersections.[95] Of the eleven teams selected to compete in the final event, six teams ultimately completed the course.[96] Many sources credit these Grand Challenges for accelerating the development of AVs.[97] There have been no legal challenges to this type of prize or award program to stimulate the development of new technology. Courts simply play no role.

C. Beyond Procurement: Human Interaction

The military-environmental complex also goes beyond procurement to incorporate iterative human interaction between the military and the private sector. Recently, DoD created a Defense Innovation Advisory Board and Defense Innovation Experimental Unit to promote innovation and best management practices. While not created specifically to address environmental or energy concerns, such institutional interaction can have positive effects in those spheres.

---

90. Joseph Hooper, *From DARPA Grand Challenge 2004 DARPA's Debacle in the Desert*, POPULAR SCIENCE (Jun. 4, 2004), http://www.popsci.com/scitech/article/2004-06/darpa-grand-challenge-2004darpas-debacle-desert.

91. *Id.*

92. Steve Russell, *DARPA Grand Challenge Winner: Stanley the Robot*, POPULAR MECHANICS (Jan. 8, 2006), http://www.popularmechanics.com/technology/robots/a393/2169012/.

93. *Id.*

94. *DARPA Urban Challenge*, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY, http://archive.darpa.mil/grandchallenge/ (last visited Apr. 17, 2017).

95. *Id.*

96. *Id.*

97. *See, e.g.*, DAVID A. MINDELL, OUR ROBOTS, OURSELVES: ROBOTICS AND THE MYTHS OF AUTONOMY 204 (2015) (noting that the 2007 DARPA Grand Challenge "generated some of the technology on which the Google car is based" and that the then-head of Google's driverless car project was the lead engineer on the team that won the Challenge); SINGER, *supra* note 79, 135–38 (2009) (discussing the first two iterations of the Grand Challenge); Ryan Calo, *Robotics and the Lessons of Cyberlaw*, 103 CAL. L. REV. 513, 526–27 (2015) (discussing the military's investments in robotics and the Grand Challenge); Sarah E. Light, *Advisory Nonreemption*, 95 WASH. U. L. REV. (forthcoming 2017) (noting this connection between military demand and the development of autonomous vehicles).

The goal of the Defense Innovation Advisory Board ("the Board"), established in 2016 by the Secretary of Defense, is to "provide advice on the best and latest practices in innovation that [DoD] can emulate."[98] Modeled on the Defense Business Board, this Board consists of a diverse group of innovators, scholars, and leaders from public and private organizations.[99] The Board will discuss issues in areas such as "rapid prototyping, iterative product development, complex data analysis in business decision making, the use of mobile and cloud applications, and organizational information sharing."[100] While not expressly focused on environmental goals, all of these best practices can be important in the environmental and energy arenas.

The Defense Innovation Unit Experimental (DIUx), founded in April 2015, serves as a bridge between Silicon Valley start-up companies and DoD. The goal of the DIUx is to develop innovations "through sources traditionally not available to the Department of Defense" in order to accelerate "technology into the hands of the men and women in uniform."[101] The mission of DIUx is to search for emerging and breakthrough technologies to promote innovation in DoD. For example, DIUx is working on wind- and solar-powered unmanned maritime vehicles to collect data that is both operationally and scientifically important to DoD from areas that manned vehicles cannot reach.[102] Formalizing these interactions between DoD and the private sector can yield significant innovation in both the civilian and military realms. These kinds of interactions generate no litigation—there are simply no legal standards to apply.[103] But such interactions can yield collaboration, insight, and knowledge in the service of technological and behavioral innovation.

---

98. Press Release, U.S. Dep't of Def., Statement by Pentagon Press Secretary Peter Cook on the Establishment of the Defense Innovation Advisory Board (Mar. 2, 2016), http://www.defense.gov/News/News-Releases/News-Release-View/Article/684201/statement-by-pentagon-press-secretary-peter-cook-on-the-establishment-of-the-de; Peter Hsu, *Despite Trump, Silicon Valley's Ties Remain Strong*, WIRED (Feb. 10, 2017), https://www.wired.com/2017/02/despite-trump-silicon-valleys-pentagon-ties-stay-strong/ (discussing continuity of the Board under the new administration).

99. *Id.*

100. *Id.*

101. *Mission*, DEFENSE INNOVATION UNIT EXPERIMENTAL (DIUx), https://www.diux.mil/ (last visited Apr. 17, 2017).

102. Cheryl Pellerin, *Carter Reviews New Technologies from DoD's Silicon Valley Unit*, U.S. DEP'T OF DEF. (Mar. 4, 2016), http://www.defense.gov/News/Article/Article/686507/carter-reviews-new-technologies-from-dods-silicon-valley-unit; U.S. DEP'T OF DEF., *Department of Defense Fact Sheet: DIUx 2.0: Continuing to Expand Outreach to the Innovation Economy* (2015), http://www.defense.gov/Portals/1/Documents/DIUx_Fact_Sheet.pdf.

103. *See infra*, Part IV.

IV. A LIMITED ROLE FOR COURTS

Of course, many statutory and regulatory actions can be challenged in the courts. But for the military-environmental complex, judicial supervision has been virtually non-existent. There has been no litigation surrounding the military's use of prizes like the DARPA Grand Challenge or the establishment of an Innovation Board.[104] Nor have there been any significant legal challenges to DoD's application of environmentally preferable procurement rules. The primary locus of debate over the military-environmental complex has been within the political branches, for example, within Congress as elected representatives disagree over policy or military spending in the National Defense Authorization Acts, within DoD itself, or within the White House when a new administration takes office.

To offer just one example, some members of Congress both within the Senate and the House have sought to limit the ability of DoD to expend funds on environmental or climate-related projects,[105] or to take lifecycle emissions into account when considering fuel purchases.[106] So in that context, disputes do exist about what goals and projects the military should pursue, as well as how deeply the military should care about climate change. The disputes are simply resolved in the policymaking branches, in elections, and within military strategic decision-making, rather than through litigation and the courts.

While the APA generally governs the process by which agencies adopt regulations, and the standards for judicial review of such regulations,[107] most aspects of the military-environmental complex do not involve notice-and-comment regulations adopted by DoD. The Tucker Act provides the procedures by which disappointed contract bidders may sue the United States in the Court of Federal Claims, or in some cases, federal district courts.[108] Review of agency action

---

104. Such actions would likely fall into the category of decisions committed to "agency discretion" under the APA, because there is no legal standard against which to measure them. *See* 5 U.S.C. § 701(a)(2) (2012).

105. Light, *The Military-Environmental Complex*, *supra* note 1, at 935 (discussing efforts to limit DoD's efforts to obtain LEED Platinum and Gold certifications for its buildings based on concerns that the LEED standards do not promote the use of domestic timber).

106. *Id.* at 918–19 (discussing DoD's support of retaining a statutory requirement to take lifecycle emissions into account despite congressional attempts at repeal); John Eick, *Bipartisan Group of U.S. Senators Working to Repeal Section 526*, AM. LEG. EXCHANGE COUNCIL (Apr. 28, 2015), https://www.alec.org/article/bipartisan-group-of-u-s-senators-working-to-repeal-section-526/ (discussing recent congressional efforts at repeal).

107. *See* 5 U.S.C. § 553, 5 U.S.C. § 706 (2012).

108. 28 U.S.C. § 1491(a)(1) (2012) (granting jurisdiction over claims against the United States upon an "express or implied contract"); *Id.* § 1491(b)(1)) (granting concurrent jurisdiction in the Court of Federal Claims and the U.S. district courts to hear objections to bid solicitations or violations of law in connection with procurement).

in such suits is expressly deferential under the standards set forth in the APA.[109] Thus, agency action may be set aside only if the agency acted in a manner that was "arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law."[110] In addition, "in exercising jurisdiction" in such suits, the courts are directed to "give due regard to the interests of national defense and national security"[111]—an extra degree of deference not afforded to ordinary procurement and contracting decisions by other agencies.

Challenges to environmentally preferable purchasing decisions are rare. And in those that have occurred, courts have largely deferred to agency decisions, regardless of whether those decisions were more or less environmentally friendly. For example, in *National Recycling Coalition v. Reilly*, the D.C. Circuit was asked to consider whether EPA's interpretation of an exception to the requirement to purchase materials with recycled content was reasonable.[112] The statute provided that a "decision not to procure such items shall be based on a determination that such procurement items . . . are only available at an unreasonable price."[113] EPA interpreted this provision broadly to mean that "a price is 'unreasonable' if it is greater than the price of a competing product made of virgin material."[114] The court upheld EPA's interpretation of the statute as reasonable under the two-step analysis in *Chevron v. Natural Resources Defense Council*.[115] EPA contended that recycled paper is generally less, rather than more expensive, than virgin paper.[116]

A second case, *United States Brewers Association v. EPA*, likewise upheld the agency's interpretation of RCRA.[117] At issue in that case were EPA's Beverage Container Guidelines, which required that all beverage containers sold at federal facilities be "returnable" pursuant to a five-cent deposit scheme.[118] In upholding EPA's Guidelines as reasonable, the court explained:

---

109. *Id.* § 1491(b)(4).

110. 5 U.S.C. § 706(2)(A) (2012); Blue & Gold Fleet, LP v. United States, 70 Fed. Cl. 487 (2006) (upholding agency action).

111. 28 U.S.C. § 1491(b)(3) (2012).

112. Nat'l. Recycling Coal. v. Reilly, 884 F.2d 1431, 432–33 (D.C. Cir. 1989).

113. *Id.* at 1432–33 (citing 42 U.S.C. § 6962(c)(1)(C)).

114. *Id.* at 1435 (citing 53 Fed. Reg. 23,546); Freedom Graphic Sys., Inc. v. United States, No. Civ. A. 91-0023, 1991 WL 16769, at *3 (D.D.C. Jan. 25, 1991) (where agency has not established a price preference for recycled goods, agency may reject higher-priced recycled goods as being of an "unreasonable price").

115. Nat'l. Recycling Coal., 884 F.2d at 1435 (citing Chevron U.S.A., Inc. v. Nat. Res. Def. Council, 467 U.S. 837, 842–45 (1984)).

116. *Id.* at 1436 (citing H.R. Rep. No. 198, 98th Cong., 2d Sess. 71, reprinted in 1984 U.S.C.C.A.N. 5576, 5630).

117. U.S. Brewers Assoc. v. EPA, 600 F.2d 974 (D.C. Cir. 1979).

118. *Id.* at 976.

> It is settled that the federal government may exact, from those with whom it does business, compliance with standards or requirements different from those found in the marketplace generally. The Guidelines . . . do not attempt to impose on commercial distributors any duty to do business with the federal government; they merely require that those who choose to do business comply with certain requirements.[119]

In addition to these challenges, unhappy bidders for government contracts may file an administrative "protest" challenging the conditions imposed in a Solicitation for Offers as "overly restrictive" before the Comptroller General of the United States.[120] However, review by the Comptroller General is likewise extremely deferential:[121]

> Agency acquisition officials have broad discretion in [] selecting evaluation factors that will be used in an acquisition, and we will not object to the use of particular evaluation factors or an evaluation scheme so long as the factors used reasonably relate to the agency's needs in choosing a contractor that will best serve the government's interests.[122]

In response to such a protest, the agency need only "establish that the specification is reasonably necessary to meet its needs."[123] For example, in *Matter of King*, a disappointed bidder argued that a Solicitation for Offers was overly restrictive for a number of reasons, including its requirement that the applicant general contractor address its experience with the LEED standards, and its statement that contractors with greater LEED experience would be evaluated more favorably.[124] The Comptroller General found that the agency established that the requirement was reasonably related to meeting the agency's needs, as it was obligated to take environmental performance into account pursuant to executive orders, the FAR, and other law.[125]

---

119. *Id.* at 984 (citing Perkins v. Lukens Steel Co., 310 U.S. 113, 127 (1940); Contractors Ass'n of E. Pa. v. Sec'y of Labor, 442 F.2d 159 (3d Cir. 1971)).

120. *See, e.g.*, Matter of King Constr. Co., B-298276, 2006 CPD P 110 (Comp. Gen. July 17, 2006).

121. USA Fabrics, Inc., B-295737, 2005 CPD P 82 at *4 (Comp. Gen. Apr. 19, 2005).

122. Olympus Bldg. Servs., Inc., B-282887, 99-2 CPD P 49 at *2 (Comp. Gen. Aug. 31, 1999); ViON Corp., B-256363, 94-1 CPD P 373 at *7 (Comp. Gen. June 15, 1994).

123. Matter of King, *supra* note 120, at *2 (citing 41 U.S.C. § 253a(a)(1)(A), (2)(B)).

124. *Id.* at *4.

125. *Id.* at *4–5 (citing Exec. Order 13,123, at 7, 64 Fed. Reg. 30,8521 (June 3, 1999), FAR §§ 11.002(d)(1), 23.202).

Thus, while a judicial forum is open to challenge environmentally preferable procurement rules or agency contracts, agencies are afforded deference when applying such rules to their own purchases. This deference exists whether agencies are promoting broader environmental protection with their purchases, or taking a more restricted view. And if the agency were acting in the national security interest of the United States, arguably even more deferential review would be appropriate.

V. CONCLUSION: OPTIMISM WITH CAUTION

The military-environmental complex serves as a potent reminder that not all environmental law is found in judicial opinions. In this particular context, the views of Congress, the President, and DoD itself are far more consequential than those of the judiciary. And while this means that DoD may be more nimble than other agencies in achieving environmental or energy goals that align with the national security interest, this lack of judicial supervision has a downside as well. Because the military-environmental complex is motivated by national security concerns, rather than concerns about the environment *per se*, there may be times when the military's national security goals will be in tension with goals of environmental protection or reduction of fossil fuel use. Or a new administration can simply seek to reverse the climate-friendly policies of a prior administration for other reasons. Reversal or limiting of policies is easier when those policies are embodied in informal agency actions like procurement decisions that receive deference, agency interpretations, and presidential executive orders, than if they are embodied in duly promulgated regulations or statutes.

This limited judicial role therefore renders certain aspects of the military-environmental complex less durable than other broadly applicable environmental rules, regulations, and statutory provisions whose reversal would be subject to more exacting judicial scrutiny. Of course, statutes like the Energy Policy Act or DoD's statutory authority to enter into thirty-year PPAs are more durable than other aspects of the military-environmental complex grounded in executive orders. Once a prize like the Grand Challenge has stimulated the development of new technologies like autonomous vehicles, these innovations cannot be uncreated. And once human interaction between the military and the private sector has taken place, the lessons exchanged cannot be unlearned, though new lessons may not be learned at all. And it may turn out to be the case that the views of the military are sufficiently compelling as to

persuade climate skeptics to pursue climate-friendly policies.[126] So while the military-environmental complex may have its limits, it is important to recognize that some durable sources of authority remain. This phenomenon will remain important as long as DoD itself continues to view the goals of climate mitigation and national security as aligned.

126. Light, *Valuing National Security*, *supra* note 1 (proposing this hypothesis).