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Dear Reader,

I am excited to present this special issue featuring the 2018 Institute for Policy Integrity and Environmental Law Journal symposium, "Energy and Environmental Policy: The Quest for Rationality." This event celebrated the tenth anniversary of Policy Integrity and brought experts from around the country to consider the evolving role of economics in environmental policymaking.

In addition to academic writing in the form of an Article and a Note, this issue includes transcripts of the symposium's panel discussions. Hosting and memorializing conversations such as these is paramount because rollbacks in environmental regulations seem to be front page news more and more frequently. Despite this, there is a lot to be hopeful about. State and local leaders are instituting new policies and regulations to protect the health of their citizens and combat climate change. These transcripts and academic writings offer a snapshot of recent innovations in environmental regulation at the state and federal level.

The staff of the New York University Environmental Law Journal worked hard editing the transcripts for clarity and adding footnotes for the educational benefit of our readers. Finally, video recordings of the entire symposium are available online.[1]

I hope you enjoy!

Asha Brundage-Moore
Editor-in-Chief

[1] *Energy and Environmental Policy*, YOUTUBE (Oct. 31, 2018) https://www.youtube.com/playlist?list=PL54Voe-jmsAqxIfFXetkJxBDQEvIp_zLA.

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SYMPOSIUM INTRODUCTION

PROMOTING RATIONALITY AT THE INSTITUTE FOR POLICY INTEGRITY

RICHARD L. REVESZ*

INTRODUCTION

While serving on an EPA advisory panel in the 1990s, I witnessed a deep imbalance in how stakeholders engaged on the economic issues related to environmental policy. Our panel was tasked with reforming the agency's methods of economic analysis, and industry groups routinely sent talented lawyers and economists to our meetings to push their views. Meanwhile, environmental advocacy groups were largely absent, unwilling or unable to use economics to make their case.

Some years later, Michael Livermore and I highlighted this dynamic in a book, *Retaking Rationality: How Cost-Benefit Analysis Can Better Protect the Environment and Our Health.*[1] We argued that economic analysis can be an advocate's most powerful tool, since a balanced look at the numbers often supports strong

* Lawrence King Professor of Law and Dean Emeritus, New York University School of Law.

[1] *See* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 32–33 (2008).

government protections. In 2008, we founded the Institute for Policy Integrity at New York University School of Law (Policy Integrity) to amplify this message. We had four overarching goals for Policy Integrity: to publish scholarship on critical policy issues; to improve government decisionmaking through advocacy; to build the capacity of other organizations to make economic arguments in policy proceedings; and to train and educate future scholars and policy practitioners.

Our first decade of work has led to notable successes in each of these areas. Policy Integrity staff members have published an array of influential articles, books, and reports. Our advocacy efforts, which often build on this scholarship, have influenced policy at the federal, state, and local levels. Our partnerships and capacity building have helped numerous groups, from the Sierra Club to Planned Parenthood, to incorporate economic analysis into their advocacy. And our fellowship program and Regulatory Policy clinic have honed the skills of talented lawyers and economists who have gone on to prominent positions in government, academia, and policy advocacy. We have grown considerably to a full-time staff of nineteen, and Policy Integrity has played a role in making many critical policy debates more rational.

I. SCHOLARSHIP THAT INFORMS ADVOCACY

Staff members at Policy Integrity have published an impressive breadth of scholarship, much of which is aimed at better quantifying the benefits of environmental policies and using this information rationally. This research can help policymakers to better internalize externalities and improve policy design. We have used our scholarship as the basis for robust advocacy efforts in several important areas.

A. *Quantifying Climate Damages*

Our research on the social cost of carbon (SCC) has helped make the benefits of climate change policies more tangible. This metric, which quantifies the economic damage from each additional ton of carbon dioxide emitted, is the best existing tool for assessing climate policies. We have published several important articles and reports on why the value determined by the Interagency Working Group during the Obama administration is the best current estimate of the SCC and on how this estimation can be improved in the

future, for example by accounting for currently omitted damage categories. Our publications on the SCC have appeared in leading academic journals such as *Nature*[2] and *Science*.[3] Two of these pieces were co-authored with Nobel Prize-winner Kenneth Arrow.[4] We also provided input to the National Academies of Sciences to help with its 2016 review of the SCC calculations.[5]

Our work related to the SCC demonstrates how our advocacy efforts typically build on our scholarship. For several years, we have led a coalition of environmental groups in submitting public comments on all federal regulations that affect greenhouse gas emissions, using arguments from our scholarship to encourage proper use of the SCC. The coalition typically includes the Environmental Defense Fund, the Natural Resources Defense Council, the Sierra Club, the Union of Concerned Scientists, and several other groups. Our work to assemble and lead this coalition has ensured that many of the most influential environmental groups in the country are speaking with a unified voice and using sophisticated economic arguments in all federal proceedings on greenhouse gas regulation—a sign of the immense progress that has been made in recent years. Our work with this coalition has also helped build the capacity of these organizations to make similar economic arguments in other policy contexts.

Policy Integrity also has played a key role in litigation related to the SCC. A series of recent court rulings have made clear that federal agencies must account for greenhouse gas impacts in their decisionmaking, and our briefs and analyses have helped support these landmark decisions. In a major 2016 decision, *Zero Zone, Inc. v. United States Department of Energy,*[6] the U.S. Court of Appeals for the Seventh Circuit sided with the Department of Energy in a

[2] *See* Richard L. Revesz et al., Comment, *Improve Economic Models of Climate Change*, 508 NATURE 173 (2014).

[3] *See* Richard L. Revesz et al., Letter, *Best Cost Estimate of Greenhouse Gases*, 357 SCIENCE 655 (2017).

[4] *See* Richard L. Revesz et al., Letter to the Editor, *The Social Cost of Carbon: A Global Imperative*, 11 REV. ENVTL. ECON. & POL'Y 1, 172–73 (2017); Revesz et al., *supra* note 2.

[5] *See* INST. FOR POLICY INTEGRITY, RECOMMENDATIONS TO NATIONAL ACADEMIES OF SCIENCES ON CHANGES TO THE FINAL PHASE 1 REPORT ON THE SOCIAL COST OF CARBON AND RECOMMENDATIONS IN ANTICIPATION OF THE PHASE 2 REPORT ON THE SOCIAL COST OF CARBON (2016), https://policyintegrity.org/documents/Comments_to_NAS_on_SCC.pdf.

[6] Zero Zone, Inc. v. U.S. Dep't. of Energy, 832 F.3d 654 (7th Cir. 2016).

challenge to the agency's energy efficiency standards for commercial refrigerators, and the judges upheld the agency's use of the SCC in its analysis of the regulation. The court, which was the first to rule on the SCC's legality, acknowledged our brief, [7] which was the only one to discuss the SCC in a sustained manner. The judges adopted reasoning consistent with many of our brief's arguments about the SCC, while rejecting a host of arguments on the other side.[8] The case garnered considerable media attention, and Cass Sunstein, former head of the Office of Information and Regulatory Affairs, called the decision "one of the most important climate change rulings ever."[9]

In 2017, a decision by the U.S. Court of Appeals for the Tenth Circuit, relying on arguments from our brief, further established case law on the importance of thorough greenhouse gas emissions analysis. The court unanimously ruled that the Bureau of Land Management violated the National Environmental Policy Act by providing an inadequate analysis of the likely climate impacts from four large coal leases.[10] It found that the agency's review was "irrational" because it relied on the flawed notion of perfect substitution, assuming that fewer coal leases on public land would merely lead to an equal amount of additional coal mining elsewhere.[11] Policy Integrity's brief focused in part on why this notion runs counter to basic economic principles.[12]

Building on these successes, we have pushed for appropriate analysis of greenhouse gas emissions impacts in many relevant natural resources contexts, including federal leasing of coal, oil, and gas rights, and pipeline projects. We submit comments on all

[7] *See id.* at 677.

[8] *Compare id.* at 677–79 *with* Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae in Support of Respondents, *Zero Zone, Inc.*, 832 F.3d 654 (No. 14-2147), https://policyintegrity.org/documents/Policy_Integrity_Amicus_Brief_SCC_July2015.pdf.

[9] Cass R. Sunstein, Opinion, *A Court Ruling That Could Save the Planet*, BLOOMBERG (Aug. 12, 2016), https://www.bloomberg.com/opinion/articles/2016-08-12/a-court-ruling-that-could-save-the-planet.

[10] WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222, 1240 (10th Cir. 2017).

[11] *See id.* at 1236.

[12] *See* Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae in Support of Petitioners-Appellants, *WildEarth Guardians*, 870 F.3d 1222 (10th Cir. 2017) (No. 15-8109), https://policyintegrity.org/documents/10th_Cir_BLM_Brief.pdf.

relevant proceedings,[13] and often file amicus briefs in lawsuits when environmental analyses of lease sales or pipeline projects are improper.[14]

Our research has also explored state-level applications of the SCC, typically in energy policy contexts. In October 2017, we released a report offering guidelines on how the SCC can best be used in state-level policies,[15] and later launched a website tracking state-level use of the metric.[16] Our research and expertise on these issues plays an important role in our state-level advocacy strategy. We have worked with policymakers in California, Colorado, Minnesota, Nevada, New York, and Virginia to promote intelligent use of the SCC. For instance, our comments helped persuade the California Public Utilities Commission to incorporate the SCC into the societal cost test utilities must use to evaluate installations of distributed energy resources, such as rooftop solar panels.[17] As a

[13] *See, e.g.*, Inst. for Policy Integrity, Comments on Rio Grande LNG Project Draft EIS, CP16-454-000, CP16-455-000 (Dec. 3, 2018), https://policyintegrity.org/documents/FERC_Rio_Grande_Joint_SCC_Comments.pdf; Inst. for Policy Integrity, Comments on Draft Supplemental Environmental Impact Statement and Resource Management Plan Amendment (Dec. 21, 2018), https://policyintegrity.org/documents/Miles_and_Buffalo_SEIS_RMP.pdf; Inst. for Policy Integrity, Comments on the Environmental Assessments for September 2019 Competitive Oil and Gas Lease Sales in Pecos District, Oklahoma Field, and Rio Puerco Field Offices (May 24, 2019), https://policyintegrity.org/documents/BLM_Sept_2019_Oil_and_Gas_Lease_EAs_Joint_SCC_Comments_2019.5.24-final.pdf.

[14] *See, e.g.*, Motion of the Institute for Policy Integrity at New York Univeristy to Participate as Amicus Curiae and Proposed Amicus Brief in Support of Plaintiffs, High Country Conservation Advocates v. U.S. Forest Serv., 52 F. Supp. 3d 1174 (D. Colo. 2014) (No. 13-cv-01723-RBJ), https://policyintegrity.org/documents/West_Elk_Amicus_Motion_Brief_Policy_Integrity.pdf; Brief of the Institute for Policy Integrity at New York Univeristy as Amicus Curiae in Support of Petitioners, Del. Riverkeeper Network v. Fed. Energy Regulatory Comm'n, No. 18-1128 (D.C. Cir. Dec. 28, 2018), https://policyintegrity.org/documents/PennEastPolicy_Integrity_Amicus_filed.pdf.

[15] *See* ILIANA PAUL ET AL., THE SOCIAL COST OF GREENHOUSE GASES AND STATE POLICY (2017), https://policyintegrity.org/files/publications/SCC_State_Guidance.pdf.

[16] *See* INST. FOR POLICY INTEGRITY, *States Using the SCC*, COST OF CARBON POLLUTION, https://costofcarbon.org/states (last visited Oct. 3, 2019).

[17] *See* Inst. for Policy Integrity, Reply Comments of the Institute for Policy Integrity on Staff Proposal Recommending a Societal Cost Test, Rulemaking 14-10-003 (Oct. 2, 2014), https://policyintegrity.org/documents/04-06-17_Reply_Comments_on_SCT_Staff_Report.PDF; PUB. UTILS. COMM'N OF STATE OF CAL., DECISION 19-05-019, DECISION ADOPTING COST-EFFECTIVENESS ANALYSIS FRAMEWORK POLICIES FOR ALL DISTRIBUTED ENERGY RESOURCES (2019), http://docs.cpuc.ca.gov/PublishedDocs/Published/G000/M293/K833/293833387.pdf.

result of this decision, California will be able to create incentives for encouraging installations that have the greatest benefit to the public. We also submitted comments to the Public Utility Commission of Nevada, suggesting that it require utilities to evaluate the SCC associated with their proposed resource mixes in their Integrated Resource Plans. The Commission ultimately adopted a version of the regulation in line with our advocacy.[18] In a Colorado proceeding, our expert report encouraged policymakers to use the social cost of carbon in order to better quantify and communicate the benefits of the state's Zero Emission Vehicle program.[19] And the New York State Public Service Commission relied on our input in choosing to base its Zero Emission Credit payment program for energy generators on the SCC value; we later helped defend the program when it faced a federal lawsuit.[20]

B. *Leveraging Administrative Law Scholarship in Litigation*

Policy Integrity's expertise and scholarship on administrative law issues has played an important role in several major court cases and policy debates. Our amicus briefs have received significant attention in several Supreme Court cases on environmental rules. In *Utility Air Regulatory Group v. EPA*,[21] dealing with the regulation

[18] *See* W. Res. Advocates, Comments in Support of Proposed Regulations Implementing Senate Bill 65, 17-07020 (July 25, 2018), https://policyintegrity.org/documents/WRA-EDF-IPI_NPUC_SCC_Comment_7-25-18.pdf; PUB. UTILS. COMM'N OF NEV., DOCKET NO. 17-07020, PROPOSED REGULATION IS ADOPTED AS PERMANENT (2018), http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2015_THRU_PRESENT/2017-7/32153.pdf.

[19] *See* PETER H. HOWARD & JASON A. SCHWARTZ, EXPERT REPORT OF DR. PETER H. HOWARD, PH.D. AND JASON A. SCHWARTZ, J.D. (2019), https://policyintegrity.org/documents/ZEV_expert_report_2019.pdf.

[20] *See* Letter from Richard L. Kauffman, Chairman of Energy and Fin. for N.Y., to N.Y. State Assembly Members (Mar. 22, 2017) https://policyintegrity.org/documents/Letter_%281%29.pdf; *see also* Inst. for Policy Integrity, Comments on New York State Department of Public Service, Staff White Paper on Clean Energy Standard, Docket No. 81 (Apr. 22, 2016), https://policyintegrity.org/documents/Comments_on_Clean_Energy_Standard_hite_Paper.pdf; Brief of Independent Economists as *Amici Curiae* in Support of Defendants-Appellees and Affirmance, Coal. for Competitive Elec. v. Zibelman, 906 F.3d 41 (2d Cir. 2018) (No. 17-2654-cv), https://policyintegrity.org/documents/Independent_Economists_Brief_for_Defendants-Appellees.pdf.

[21] *See* Util. Air Regulatory Grp. v. EPA, 573 U.S. 302 (2014); *see also* Brief of Institute for Policy Integrity at New York University School of Law as Amicus Curiae in Support of Respondents, *Util. Air Regulatory Grp.*, 573 U.S. 302 (Nos. 12-1146, 12-1248, 12-1254, 12-1268, 12-1269, and 12-1272),

of greenhouse gases, our brief developed a detailed argument about the regulatory history, showing that multiple presidential administrations over several decades have consistently applied the prevention of significant deterioration permitting scheme to all pollutants regulated under the Clean Air Act. This analysis, which had not been developed in other briefs, led to questions from the bench during oral argument.[22] The Court's ruling affirmed EPA's authority to regulate greenhouse gases under the prevention of significant deterioration program, as our brief suggested it should.

When the Supreme Court heard *EPA v. EME Homer City Generation*,[23] which dealt with the Cross-State Air Pollution Rule, our brief argued that the Good Neighbor Provision underlying the rule allows for flexibility and cost minimization while controlling pollution.[24] The brief built on my scholarship,[25] and when the Court upheld the Cross-State Air Pollution Rule, Justice Ginsburg, who wrote the majority opinion, cited one of my articles in her opening paragraph.[26]

In *Michigan v. EPA*, the Court's 2015 review of EPA's Mercury and Air Toxics Standards, an argument put forward only in Policy Integrity's brief occupied roughly half of the discussion at oral argument. Our brief argued that EPA cannot meaningfully assess compliance costs at the initial listing stage of its regulatory process, because costs inextricably depend on subsequent regulatory

https://policyintegrity.org/documents/Policy_Integrity_SCOTUS_Amicus_Brief_in_PSD_Case.pdf.

[22] *See* Brief for EPA as Amicus Curiae Supporting Respondent, *Util. Air Regulatory Grp.*, 573 U.S. 302 (Nos. 12-1146, 12-1248, 12-1254, 12-1268, 12-1269, and 12-1272); Transcript of Oral Argument at 6, *Util. Air Regulatory Grp.*, 573 U.S. 302 (Nos. 12-1146, 12-1248, 12-1254, 12-1268, 12-1269, and 12-1272), https://www.supremecourt.gov/oral_arguments/argument_transcripts/2013/12-1146_8n6a.pdf.

[23] *See* EPA v. EME Homer City Generation, 572 U.S. 489 (2014).

[24] *See* Brief for EPA et al. as Amicus Curiae Supporting Petitioners, *EME Homer City Generation*, 572 U.S. 489 (Nos. 12-1182 and 12-1183), https://policyintegrity.org/documents/CSAPR_Amicus_Brief.pdf.

[25] *See, e.g.*, Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 555 (2001); Richard L. Revesz, *Federalism and Interstate Environmental Externalities*, 144 U. PA. L. REV. 2341 (1996); Richard L. Revesz, *Rehabilitating Interstate Competition: Rethinking the "Race-to-the-Bottom" Rationale for Federal Environmental Regulation*, 67 N.Y.U. L. REV. 1210 (1992).

[26] *See EME Homer City Generation*, 572 U.S. at 495.

design choices.[27] While the Court ruled 5-4 to remand the mercury rule to the D.C. Circuit Court, Justice Kagan's dissent focused on the argument in our brief.[28]

Our scholarship has also helped frame an important debate over EPA's authority in regulating greenhouse gas emissions. When the Obama administration promulgated the Clean Power Plan, which set limits on emissions from the electric power sector and gave states broad discretion in how to reach them, many critics argued that the agency had no authority to regulate emissions outside the fence line of a power plant. Our article on the issue analyzed several past instances where EPA had taken a similar course of action, bolstering the case for a broader and more flexible regulatory scheme.[29] Policy Integrity's brief in litigation over the rule relied on the article,[30] as did briefs by other parties.[31] This debate remains relevant, as the same issue may determine the legality of the Trump administration's significant rollback of the Clean Power Plan.

In another academic article, Kimberly Castle and I analyzed the historical and administrative law issues related to EPA's treatment of the benefits of particulate matter pollution reductions.[32] The Trump administration's changes in how these benefits are assessed could have profound effects on the future of environmental regulation, and our article provides clear evidence that the changes are a major deviation from decades of bipartisan precedent. Policy Integrity's comments in recent administrative proceedings have

[27] *See* Brief of the Institute for Policy Integrity as *Amicus Curiae* in Support of Respondents, Michigan v. EPA, 135 S. Ct. 2699 (2015) (Nos. 14-46, 14-47, and 14-49), https://policyintegrity.org/documents/SCOTUS_brief_MATS_March2015.pdf.

[28] *See Michigan*, 135 S. Ct. at 2714–16 (5-4 decision) (Kagan, J., dissenting).

[29] *See* Richard L. Revesz et al., *Familiar Territory: A Survey of Legal Precedents for the Clean Power Plan*, 46 ENVTL. L. REV. 10,190 (2016).

[30] *See* Brief of the Institute as *Amicus Curiae* in Support of Respondents, West Virginia v. EPA, No. 15-1363 (D.C. Cir. June 2, 2016), https://policyintegrity.org/documents/CPP_Amicus_April2016.pdf.

[31] *See, e.g.*, Environmental and Public Health Respondent-Intervenors' Opposition to Motions for Stay, *West Virginia*, No. 15-1363 (Dec. 8, 2015), https://www.edf.org/sites/default/files/content/ngo-resp-opp.pdf; Final Brief of Intervenor Environmental and Public Health Organizations in Support of Respondents, *West Virginia*, No. 15-1363 (Apr. 22, 2016), https://www.edf.org/sites/default/files/content/edf_and_others_final.pdf.

[32] *See* Kimberly M. Castle & Richard L. Revesz, *Environmental Standards, Thresholds, and the Next Battleground of Climate Change Regulations*, 103 MINN. L. REV. 3 (2018).

relied on the article,[33] and it could play an important role in upcoming court challenges to some of the Trump administration's actions.

C. *Improving Economic Analysis Techniques*

Policy Integrity's scholarship and advocacy have helped advance several new analytical methods that can better inform policymaking. This has led to some significant impacts, especially in our natural resources and electricity policy work.

Since 2009, we have advocated that leasing decisions for natural resources on federal lands account for "option value," a common financial concept that places value on delaying irreversible decisions in order to gain more information. We suggested policy changes through an academic article[34] and numerous public comments.[35] We then brought a challenge against the Interior Department in the U.S. Court of Appeals for the D.C. Circuit, focusing largely on this issue. In the case, *Center for Sustainable Economy v. Jewell,*[36] Policy Integrity co-founder and senior advisor Michael Livermore represented the plaintiff challenging the Bureau of Ocean Energy Management's 2012–2017 leasing plan for the Gulf of Mexico and the Alaskan coast, arguing that incomplete and flawed economic analysis leads the government to sell resource leases too quickly and too cheaply, potentially costing the American public billions of dollars and leading to high-risk drilling. The decision acknowledged the importance of considering option value in future situations when the value is more readily quantifiable.[37] The Department of the Interior soon began to incorporate our input,

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[33] *See* Inst. for Policy Integrity, Comments to EPA on the Science Advisory Board's Review of National Emissions Standards for Hazardous Air Pollutants, RIN 2060-AT99 (May 29, 2019), https://policyintegrity.org/documents/J_Lienke_written_statement_for_SAB_re_MATS_Reconsideration_%28signed%29.pdf.

[34] *See* Michael A. Livermore, *Patience Is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. COLO. L. REV. 581 (2012).

[35] *See, e.g.*, Inst. for Policy Integrity, Comments on Minerals Management Service Draft Proposed Plan (July 31, 2009), https://policyintegrity.org/documents/MMS_Second_Round_Comments.pdf; Inst. for Policy Integrity, Comments on the Draft Proposed 2017–2022 Outer Continental Shelf Oil and Gas Leasing Program, BOEM-2014-0059 (Mar. 30, 2015), https://policyintegrity.org/documents/Comments_to_BOEM_2017-2022_Offshore_Program.pdf.

[36] *See* Ctr. for Sustainable Econ. v. Jewell, 779 F.3d 588, 610–12 (D.C. Cir. 2015).

[37] *See id.*

as the offshore oil and gas leasing program proposed in early 2015 devoted twelve pages to option value and related resource valuation concepts, using language that closely resembles the arguments Policy Integrity has repeatedly made to the agency.[38] Likely effects of this change include higher minimum bids for lease sales and delayed leasing of sensitive areas.

We are also working to improve the quality of analysis in environmental reviews conducted under the National Environmental Policy Act. For instance, a recent Supplemental Environmental Assessment prepared by the Bureau of Land Management speculates that new oil and gas leases could reduce global greenhouse emissions because natural gas could replace dirtier fuels. Our comments to the agency explain that such speculation about substitution effects is inappropriate and fails to consider factors such as potential increases in oil demand (and emissions) that could result from greater extraction and resulting price reductions. We encourage substitution effects to be modeled, so that decisionmakers can fully consider the consequences of new projects or policy changes.[39] And in our comments on a leasing proposal in the Arctic National Wildlife Refuge, we argue that the agency did not consider alternative development scenarios that would best reduce environmental and social harms, nor did it analyze an alternative that would account for the option value of irreversible drilling. We encourage the agency to better analyze leasing alternatives, substitution effects, and the value of the delicate ecosystems.[40]

Much of our state-level work on electricity policy involves research and advocacy related to monetizing the environmental impacts of greenhouse gas emissions and conventional air pollution. As policymakers are able to better quantify these impacts, they can work to appropriately reduce pollution. As part of the New York

[38] *See* BUREAU OF OCEAN ENERGY MGMT., 2017–2022 OUTER CONTINENTAL SHELF OIL AND GAS LEASING DRAFT PROPOSED PROGRAM 8.1.1 (2015).

[39] *See* Inst. for Policy Integrity et al., Comments on Supplemental Environmental Assessment for the May 2015–August 2016 Sold and Issued Leases, DOI-BLM-WY-0000-2019-0007-EA (Apr. 22, 2019), https://policyintegrity.org/documents/Wyoming_Oil_and_Gas_Lease_Supplemental_EA_Joint_SCC_Comments_2019.4.22-final.pdf.

[40] *See* Inst. for Policy Integrity, Comments on Arctic Coastal Plain Draft EIS (Mar. 13, 2019), https://policyintegrity.org/documents/Arctic_Coastal_Plain_DEIS_Comments_2019.3.13-final.pdf.

State Public Service Commission's Value of Distributed Energy Resources proceeding, we have led a working group of diverse stakeholders seeking to identify the best methods for quantifying the environmental value of distributed energy resources.[41] These resources often reduce emissions of both criteria air pollutants and carbon dioxide. Our scholarship on the quantification and monetization of air pollution externalities[42] has been influential throughout this process. If these methods are further developed and implemented, policymakers will be able to use new analytical tools to evaluate key energy policies.

D. *Bringing Economic Arguments Beyond the Environmental Sphere*

In addition to our work on the environment, energy, and natural resources, Policy Integrity regularly engages on a broader set of policy issues, such as women's health and federal regulatory review, principally to ensure the proper consideration of the costs and benefits of administrative actions.

Policy Integrity helped contribute to a significant recent legal victory, when district courts in Washington State, Oregon, and California blocked a Trump administration rule that makes harmful changes to federally-funded women's health services. In February 2019, the Department of Health and Human Services announced onerous restrictions to its Title X program, likely forcing the shutdown of some family planning clinics and closing off access to others for low-income women. We submitted comments on the rule[43] and amicus briefs[44] supporting requests for preliminary

[41] *See* JEFFREY SHRADER ET AL.,VALUE OF DISTRIBUTED ENERGY RESOURCES – E/EJ VALUE INFORMAL SUBGROUP – TRACK 1 AND 2 REPORT (2018), https://policyintegrity.org/documents/DER_Value_Stack_E_Value_Report_07.09.18.pdf.

[42] *See* JEFFREY SHRADER ET AL., VALUING POLLUTION REDUCTIONS (2018), https://policyintegrity.org/files/publications/Valuing_Pollution_Reductions.pdf.

[43] *See* Inst. for Policy Integrity, Comments to HHS on the Proposed Rule, Compliance With Statutory Program Integrity Requirements, HHS-OS-2018-0008 (July 31, 2016), https://policyintegrity.org/documents/HHS_Title_X_Comments.pdf.

[44] *See* Brief of the Institute for Policy Integrity as *Amicus Curiae* in Support of Plaintiff's Motion for Preliminary Injunction, California v. Azar, 385 F. Supp. 3d 960 (N.D. Cal. 2019) (Nos. 19-cv-01184-EMC and 19-cv-01195-EMC); Motion to Appear as *Amicus Curiae* and to File Memorandum in Support of Motion for Preliminary Injunction, Washington v. Azar, 376 F. Supp. 3d 1119 (E.D. Wash. 2019) (No. 1:19-cv-03040-SAB).

injunction in four court cases. The U.S. District Court for the Eastern District of Washington referred to our brief in the reasoning for its decision to grant an injunction.[45] And the ruling by the U.S. District Court for the Northern District of California cites our brief and devotes a lengthy discussion to the arguments we advanced.[46] Our involvement in this debate stemmed from our past capacity-building efforts, when, a decade ago, we advised lawyers at Planned Parenthood who sought to include economic analysis in their legal arguments.[47]

Policy Integrity's work on federal regulatory review has helped establish a bipartisan consensus on needed regulatory reforms. In 2016, Policy Integrity convened a roundtable of former administrators and acting administrators of the Office of Information and Regulatory Affairs to discuss ways to strengthen the regulatory review process. Nine individuals took part, and we compiled the consensus recommendations and some associated research in a report, advocating a set of commonsense reforms.[48] These recommendations focused on such issues as improved retrospective review, independent agency review, and updated methodology guidance. The report offers a path forward for a future presidential administration to improve the federal regulatory process.

[45] *See Washington*, 376 F. Supp. 3d at 1131.

[46] *See California*, 385 F. Supp. 3d at 1014–19.

[47] *See* Nat'l Latina Inst. for Reprod. Health et al., Comments in Support of HHS's Proposal to Rescind the Regulation Entitled "Ensuring that Department of Health and Human Services Funds Do Not Support Coercive or Discriminatory Policies or Practices in Violation of Federal Law," RIN-0991-AB49 (Apr. 9, 2009), https://policyintegrity.org/documents/CRRcommentstoHHSreRecisionpdf.pdf.

[48] *See* INST. FOR POLICY INTEGRITY, STRENGTHENING REGULATORY REVIEW: RECOMMENDATIONS FOR THE TRUMP ADMINISTRATION FROM FORMER OIRA LEADERS (2016), https://policyintegrity.org/files/publications/RegulatoryReview_Nov2016.pdf.

Other Policy Integrity projects have focused on predatory lending regulations,[49] public health rules,[50] housing policy,[51] net neutrality,[52] legal aid for domestic violence survivors,[53] and a host of other non-environmental issues. Through this work, we have helped bring rational economic arguments into regulatory debates that sometimes lacked this analysis. And in doing so, we have built a network of collaborators and helped improve the capacity of many advocacy groups to incorporate economic arguments in their work.

II. INFLUENCING THE PUBLIC CONVERSATION ON KEY ISSUES

Our staff members regularly publish op-eds and speak to journalists about a wide range of policy topics. We believe that our publications and media efforts have helped convey important messages to policymakers and the public, shaping the debate on critical issues. For instance, I have published more than twenty op-eds on environmental policy issues since the beginning of the Trump administration, including a *Los Angeles Times* piece (co-authored with Policy Integrity board member Ignacia Moreno) about the adverse effects of Trump-era policy changes on Latino health,[54] a *Washington Post* piece (co-authored with Policy Integrity

[49] *See, e.g.*, Inst. for Policy Integrity, Comments on Proposals Under Consideration to Limit Certain Practices for Payday, Auto Title, and Similar Loans (Dec. 7, 2015), https://policyintegrity.org/documents/CFPBComments_Payday.pdf.

[50] *See, e.g.*, Inst. for Policy Integrity, Comments on Proposed Revisions to Implementing Policies for Section 1557 of the Patient Protection and Affordable Care Act, HHS-OCR-2019-0007 (Aug. 13, 2019), https://policyintegrity.org/documents/PolicyIntegrity_Section1557Comments_2019.08.13.pdf.

[51] *See, e.g.*, Inst. for Policy Integrity, Comments on Proposed Changes to the Restrictions on Housing Assistance for Certain Categories of Noncitizens, HUD-2019-0044-0001 (July 9, 2019), https://policyintegrity.org/documents/PolicyIntegrity_HUDEligibilityRule_forSubmission.pdf.

[52] *See, e.g.*, INST. FOR POLICY INTEGRITY, NAVIGATING NET NEUTRALITY: PROMOTING EFFECTIVE AND ADAPTIVE BROADBAND POLICY THROUGH STRUCTURAL DESIGN (2014), https://policyintegrity.org/files/publications/Navigating_Net_Neutrality.pdf.

[53] *See, e.g.*, INST. FOR POLICY INTEGRITY, SUPPORTING SURVIVORS: THE ECONOMIC BENEFITS OF PROVIDING CIVIL LEGAL ASSISTANCE TO SURVIVORS OF DOMESTIC VIOLENCE (2015), https://policyintegrity.org/files/publications/SupportingSurvivors.pdf.

[54] *See* Ignacia S. Moreno & Richard L. Revesz, Opinion, *Latinos Are Disproportionately Affected by Asthma, and Trump's Policies Are Making It Worse*, L.A. TIMES (Sept. 1, 2017), https://www.latimes.com/opinion/op-ed/la-oe-moreno-revesz-latinos-asthma-trump-20170901-story.html.

Regulatory Policy Director Jack Lienke) on how the administration is failing to help states reduce smog,[55] and a *Slate* piece on the dubious tactics underlying recent EPA policy changes.[56] These pieces have helped bring public attention to some of the administration's problematic actions. Policy Integrity Natural Resource Director Jayni Hein's 2015 *Washington Post* op-ed highlighted the fact that oil companies can lease public land for the price of a cup of coffee,[57] shining a light on flaws in the federal leasing program as we worked to encourage reforms. And Legal Director Jason Schwartz's op-ed on the legality of the Mercury and Air Toxics Standards[58] drew attention to arguments in our Supreme Court brief[59] as the Court was considering the case.

Policy Integrity has become one of the major sources of insight and analysis on federal greenhouse gas regulations. We have published multiple *New York Times* op-eds on the Clean Power Plan[60] and the legality of climate rule rollbacks.[61] We also regularly

[55] *See* Richard L. Revesz & Jack Lienke, Opinion, *Here's How the EPA Can Help States with Their Smog Problems*, WASH. POST (May 12, 2017), https://www.washingtonpost.com/opinions/heres-how-the-epa-can-help-states-with-their-smog-problems/2017/05/12/f3650c8c-31bc-11e7-9534-00e4656c22aa_story.html.

[56] *See* Richard L. Revesz, Opinion, *The Trump Administration Might Be Too Incompetent to Undermine Environmental Regulations*, SLATE (June 3, 2019), https://slate.com/technology/2019/06/trump-administration-cant-actually-undermine-environmental-regulation-too-incompetent.html.

[57] *See* Jayni Foley Hein, Opinion, *Oil Companies Are Drilling on Public Land for the Price of a Cup of Coffee. Here's Why That Should Change*, WASH. POST (June 16, 2015), https://www.washingtonpost.com/posteverything/wp/2015/06/16/oil-companies-are-drilling-on-public-land-for-the-price-of-a-cup-of-coffee-heres-why-that-should-change/.

[58] *See* Jason A. Schwartz, Opinion, *The Mathematics of Life-Saving Regulation*, HILL (Apr. 3, 2015), https://thehill.com/blogs/congress-blog/energy-environment/237771-the-mathematics-of-life-saving-regulation.

[59] *See* Brief of the Institute for Policy Integrity as *Amicus Curiae* in Support of Respondents at 34, Michigan v. EPA, 135 S. Ct. 2699 (2015) (Nos. 14-46, 14-47, and 14-49), https://policyintegrity.org/documents/SCOTUS_brief_MATS_March2015.pdf.

[60] *See* Richard L. Revesz & Jack Lienke, Opinion, *The E.P.A.'s Smoke and Mirrors on Climate*, N.Y. TIMES (Oct. 9, 2017), https://www.nytimes.com/2017/10/09/opinion/environmental-protection-obama-pruitt.html; Richard L. Revesz & Jack Lienke, Opinion, *Obama Takes a Crucial Step on Climate Change*, N.Y. TIMES (Aug. 3, 2015), https://www.nytimes.com/2015/08/04/opinion/obama-takes-a-crucial-step-on-climate-change.html.

[61] *See* Richard L. Revesz, Opinion, *On Climate, the Facts and Law Are Against Trump*, N.Y. TIMES (Dec. 4, 2018), https://www.nytimes.com/2018/12/04/opinion/climate-report-trump.html.

comment to major media outlets on policy developments, such as changes in EPA analytical approaches[62] and the interplay between election results and climate regulations.[63]

Our roundup of the Trump administration's poor record in court challenges on federal agency actions[64] has played a key role in highlighting the legal shortcomings of the administration's attempts to change policy. Our data reveals that the administration has prevailed less than eight percent of the time when its federal agency actions have been challenged in court. By contrast, past administrations have prevailed in nearly seventy percent of cases.[65] Our roundup has been repeatedly referenced by major news outlets discussing the administration's legal failures.[66]

III. EDUCATION AND TRAINING

Education and training are central to Policy Integrity's mission. Through our Regulatory Policy Clinic and Advanced Regulatory Policy Clinic at New York Universtiy School of Law and our fellowship program, we offer future lawyers and policy professionals the opportunity to bolster their knowledge of regulatory policy, economics, administrative law, and advocacy techniques.

Policy Integrity staff members teach New York University School of Law's Regulatory Policy Clinic, which offers students

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62 *See, e.g.*, Lisa Friedman, *E.P.A. Plans to Get Thousands of Pollution Deaths Off the Books by Changing Its Math,* N.Y. TIMES (May 20, 2019), https://www.nytimes.com/2019/05/20/climate/epa-air-pollution-deaths.html.

63 *See* Evan Halper, *Democratic Elector Gains Will Give a Boost to California in Fight Against Trump*, L.A. TIMES (Nov. 7, 2018), https://www.latimes.com/politics/la-na-pol-midterm-fallout-california20181107-story.html.

64 *See Roundup: Trump-Era Agency Policy in the Courts*, INST. FOR POLICY INTEGRITY, https://policyintegrity.org/deregulation-roundup (last visited Oct. 15, 2019).

65 *See* David Zaring, *Reasonable Agencies*, 96 VA. L. REV. 135, 135 (2010) ("[C]ourts affirm agencies' actions slightly more than two thirds of the time."); *id.* at 171 (listing agency win percentages in various academic studies).

66 *See, e.g.*, Margot Sanger-Katz, *For Trump Administration, It Has Been Hard to Follow the Rules on Rules,* N.Y. TIMES (Jan. 22, 2019), https://www.nytimes.com/2019/01/22/upshot/for-trump-administration-it-has-been-hard-to-follow-the-rules-on-rules.html; Timothy Puko, *For Trump's Deregulatory Agenda, a Reckoning Nears,* WALL ST. J. (Dec. 3, 2018), https://www.wsj.com/articles/for-trumps-deregulatory-agenda-a-reckoning-nears-1543894538.

practical experience in administrative law and policy analysis. Students work with Policy Integrity's legal advocates and economic scholars to tackle important regulatory matters, covering all stages of the federal rulemaking process as well as policy-related litigation. Students learn our approach, which prioritizes the internalization of externalities, properly conducted economic analysis, and regulatory decisions that increase net benefits to society. As part of our clinics, students contribute to amicus briefs in major litigation, public comments on major federal and state rulemaking, and research on policy issues.

Our fellowship program allows talented lawyers and economists to spend two years with us honing their skills in policy research and advocacy while contributing to our work. During their time at Policy Integrity, fellows have authored influential academic articles and amicus briefs. Many former fellows have gone onto accomplished careers in policy and academia.

Dozens of alumni from our clinics and fellowship program have moved into prestigious positions in government, the private and non-profit sectors, and academia, where they are helping to advance rational policymaking around the country. Several have gone on to work at the Environmental Protection Agency, Department of Justice, Consumer Financial Protection Bureau, and other government agencies. Others are playing key roles in the advocacy community at organizations including the Environmental Defense Fund, the American Civil Liberties Union, and the Immigrant Legal Advocacy Project.

IV. A DECADE OF SHAPING POLICY DEBATES

Through the research, advocacy, and training efforts discussed above, Policy Integrity has made a mark on the policy landscape. In September 2018, we held our tenth annual policy conference in New York City, convening an illustrious panel of speakers to discuss the role of rationality in energy and environmental policy. The rest of this special issue of the *Environmental Law Journal* focuses on those proceedings.

Thanks to a decade of Policy Integrity's efforts, supporters of rational, economically informed environmental policymaking are no longer so rare. As our work continues into a second decade, we hope that this approach will take hold more firmly, leading to smarter policies that benefit the public.

SYMPOSIUM PANEL

ADVANCING ENERGY POLICY

BURCIN UNEL, CHERYL A. LAFLEUR & ANDREW G. PLACE

INTRODUCTION: PURSUING RATIONALITY TO ADVANCE ENERGY POLICY, BY BURCIN UNEL*

In the past decade, state and federal energy policymakers have been trying to catch up with the two major drivers of grid transformation: technological innovation and climate change. With advances in technology, and, as a consequence, the increasing deployment of new resources such as distributed solar generation and energy storage, we must rethink how we regulate energy markets. These resources are changing the traditional one-way electric grid into a multi-directional platform where consumers can also generate electricity. Additionally, because these resources can provide both retail and wholesale services, they are also challenging the traditional "bright line" between state and federal jurisdictional boundaries.

* Burcin Unel, Ph.D., Energy Policy Director, Institute for Policy Integrity at New York University School of Law.

At the same time, given the lack of climate leadership by the Trump administration, states are taking ambitious actions to clean up the power sector, with an increasing number of states moving forward with 100 percent clean energy goals.[1] To achieve these goals, many states turn to new policy tools, such as zero-emission credits for nuclear plants and offshore-wind renewable energy credits. Because these tools necessarily affect the outcomes in wholesale energy markets, they create tensions between states and federal regulators as they try to figure out how energy markets should evolve with the changing generation mix.

As part of The Institute for Policy Integrity's (Policy Integrity) tenth anniversary conference, "Energy and Environmental Policy: The Quest for Rationality," I moderated a panel with three energy policy makers: Kathleen Frangione, Chief Policy Advisor, Office of the Governor for the State of New Jersey; Cheryl A. LaFleur, Commissioner, Federal Energy Regulatory Commission (FERC);[2] and Andrew G. Place, Vice Chairman, Pennsylvania Public Utility Commission. In their transcribed and edited remarks that follow,[3] they provide insights about the future of energy policy in their jurisdictions in the face of rapid climate change and technology innovation. In this piece, I discuss some of the driving forces behind the recent state and federal actions in energy policy, describe recent successes for economic rationality, and conclude with reflections on Policy Integrity's thought leadership on energy policy.

A. *Technological Change as a Driver of Regulatory Policy*

The energy sector has been going through a significant transformation during the past ten years. One of the two major drivers of this transformation is undoubtedly technological change. Recent innovations, and the resulting cost declines, made many newer, cleaner, and more advanced resources economically viable,

[1] Hawaii, California, Washington D.C., New Mexico, Puerto Rico, and Nevada have enacted legislation committing to 100% clean energy goals with their states. *See 100% Commitments in Cities, Counties, & States,* SIERRA CLUB, https://www.sierraclub.org/ready-for-100/commitments (last visited May 7, 2019). In addition, governors of Colorado, New Jersey, and New York are committed to 100% goals, with pending legislation. *See id.*

[2] In the interim between publication and the discussion, LaFleur has stepped down from FERC and become a member of the board of directors for Independent System Operator-New England.

[3] The remarks of Kathleen Frangione are not published in this issue.

and hence, more common. For example, installation of residential solar panels in the United States more than quadrupled in the past ten years.[4] Similarly, residential energy storage systems have been growing exponentially.[5]

Increasing deployment of these resources disrupts both the traditional electric grid, which has been relying on one-directional power flow from large, centralized generators to end-users, and traditional utility regulation, which has been designed around a core assumption that only utilities could provide certain electric services. These new technologies also give end-users the ability to generate electricity themselves, as well as the ability to use it, store it, or sell it to the grid. Consequently, users who could only be passive consumers of electricity up until recently, can now also be active producers who decide how much to generate, consume, and sell at a given time. Therefore, they challenge the core assumption of traditional utility regulation, threatening utility business models.

As a result, one of the main state-level policy debates during the past several years has been how to revise the existing regulatory structures to integrate these "prosumers" into the grid and compensate them, while not threatening the financial viability of regulated utilities. In many states, regulators have been struggling with how to value and compensate distributed energy resources such as rooftop solar panels and energy storage systems. For example, in 2018, nearly all states took some action on distributed solar generation compensation.[6] Some states were supportive of these new resources, driven partly by state climate goals, while others took action to hinder these resources, driven mostly by financial concerns of utilities.[7]

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[4] *See* DAVID FELDMAN ET AL., NAT'L RENEWABLE ENERGY LAB., Q4 2017/Q1 2018 SOLAR INDUSTRY UPDATE 36 (2018).

[5] *See* John Weaver, *U.S. Triples Energy Storage Installations, Residential Grows 10X to Become Largest Sector*, PV MAGAZINE (Sept. 5, 2018), https://pv-magazine-usa.com/2018/09/05/us-triples-energy-storage-installations-residential-grows-10x-to-become-largest-sector/.

[6] *See* AUTUMN PROUDLOVE ET AL., N.C. CLEAN ENERGY TECH. CTR., 50 STATES OF SOLAR: Q4 2018 QUARTERLY REPORT & 2018 ANNUAL REVIEW EXECUTIVE SUMMARY 5 (2019), https://nccleantech.ncsu.edu/wp-content/uploads/2019/01/Q4-18-Exec-Summary-Final.pdf.

[7] *See* ANGELIQUE MERCURIO, ENERKNOL RESEARCH, CHANGING NET METERING LANDSCAPE RELIES ON SOLAR-PLUS-STORAGE TO SOLVE COST SHIFTING 3 (2018), https://enerknol.com/enerknol-insights-changing-net-metering-landscape-relies-on-solar-plus-storage-to-solve-cost-shifting/; Richard Revesz &

Despite these intense debates about distributed solar generation, so far only a few states have taken on comprehensive initiatives to rethink the regulatory structures to efficiently integrate all types of distributed energy resources, such as energy storage and electric vehicles. At best, most states are reviewing different types of resources one by one, in separate proceedings and with separate mandates, creating a possibility of distorting their relative prices, and, as a result, the economic efficiency of market outcomes.[8] Furthermore, such one-step-at-a-time approaches, especially those with long-lasting regulatory proceedings, struggle to keep up with the pace of technological transformation. As a result, despite all the potential value these new resources offer, state-level regulatory transformation has been slow, leaving significant economic gains on the table.

At the federal level, regulators have been struggling with how to integrate these new types of resources into wholesale energy markets while respecting the current jurisdictional divide between state and federal regulators. According to the Federal Power Act, the federal government regulates wholesale sales and interstate transmission, and the states regulate retail sales, intrastate transmission, and generation and distribution facilities.[9] When electricity was flowing in only one direction—from generators to transmission lines, to distribution utilities, to end-users—distinguishing between a "sale for resale" and a "retail sale" was relatively uncomplicated, which made drawing a "bright line" between federal and state jurisdictions relatively easy. But, the fact that these new technologies could generate electricity that can provide both retail and wholesale services is blurring this divide, creating a potential for regulatory conflict between state and federal agencies, and, in turn, economic inefficiency.

Because distributed energy resources can serve both retail and wholesale markets, it would be economically efficient to allow these resources to participate in both markets. However, allowing "dual participation" is not straightforward. It requires clear definitions of "services" that these resources provide, advanced technology to

Burcin Unel, *Managing the Future of the Electricity Grid: Distributed Generation and Net Metering*, 41 HARV. L.REV. 44 (2017).

[8] *See e.g.*, *Detailed Summary Maps*, N.C. CLEAN ENERGY TECH. CTR., http://www.dsireusa.org/resources/detailed-summary-maps/ (last visited Nov. 16, 2019) (providing color-coded maps showing different energy policies by state).

[9] *See* Federal Power Act, 16 U.S.C. § 824(b)(1) (2012).

measure these services, and a coordination between state and federal authorities on which of those services are retail and which of them are wholesale, ensuring that resources can get paid for all the services they can provide without getting paid twice for the same service.

Over the past several years, FERC has indeed been working on rules to incorporate distributed energy resources and energy storage into wholesale energy markets. In 2018, FERC issued Order 841, which directed wholesale market operators to create rules that would allow energy storage resources to participate in wholesale markets as long as they are technically capable of providing wholesale services.[10] This order was an important milestone, eliminating entry barriers for a technology crucial to the clean energy future, while recognizing—and implicitly allowing—dual participation. However, when FERC issued Order 841, it did not take a similar action on distributed energy resources, citing insufficient information.[11] Therefore, a significant efficiency gap in wholesale energy markets still remains.

B. *Climate Change as a Driver of Energy Policy*

The second major driver of the transformation in electricity regulation is climate change. Climate change is already causing significant damages to our economy, environment, and public health. While the Trump administration has consistently ignored the irrefutable evidence on climate science, many states, which are already dealing with devastating consequences from climate change, have been taking decisive actions to reduce greenhouse gas emissions from the electric sector by implementing ambitious clean energy standards.

Clean energy standards require that a certain percentage of electricity delivered to a state comes from resources that do not emit carbon dioxide, such as solar, wind, and nuclear. To achieve these goals, states usually pay these resources separately for their "environmental attribute." For example, in some states, renewable energy resources get renewable energy credit payments, separate from whatever they earn in the wholesale markets.[12] Some states opt

[10] *See* Order 841, 162 FERC ¶ 61,127 (2018).

[11] *See id.* ¶ 5.

[12] *See, e.g.*, *Maryland Renewable Energy Portfolio Standard Program: Frequently Asked Questions*, MD. PUB. SERV. COMM'N (2019), https://www.psc.state.md.us/

for more technology-specific payments, such as zero-emission credit payments for nuclear plants and offshore-wind renewable energy credits.[13]

Increasing penetration of clean energy resources creates three challenges for policymakers. The first challenge is related to infrastructure. Because it makes sense to build wind turbines only where there is abundant wind power, and to build solar farms only where there is abundant solar potential, significant investment in new transmission lines is necessary. At the same time, the existing infrastructure needs to be updated to better accommodate the variability of these resources.

The second challenge is related to the design of wholesale energy markets. Currently, wholesale market operators manage most of the power supplied in the United States.[14] These operators' goal is to ensure reliability at lowest cost. To achieve this goal, they rely on carefully designed auctions, which optimize the operation of all generators based on generators' marginal costs and other operational characteristics to determine prices that would ensure economic efficiency and sufficient generation to provide reliable electricity service.[15] However, given that most renewable resources have almost zero marginal cost of generation, it is a non-trivial task to figure out how exactly to set economically efficient prices that would also be sufficient to incentivize enough generation for reliability.[16] Furthermore, because there could be significant

electricity/maryland-renewable-energy-portfolio-standard-program-frequently-asked-questions/ (last visited Oct. 4, 2019); *About the Pennsylvania Alternative Energy Credit Program*, PA. PUB. UTIL. COMM'N (2019), http://www.pennaeps.com/aboutaeps/ (last visited Oct. 4, 2019).

[13] *See, e.g.*, Press Release, N.J. Bd. of Pub. Utils., NJBPU Approves Zero Emission Credit Program and Application Process for Nuclear Power Plants (Nov. 19, 2018), https://www.state.nj.us/bpu/newsroom/2018/approved/20181119.html; *Offshore Wind Renewable Energy Credits*, N.Y. STATE ENERGY RESEARCH & DEV. AUTH., https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-Solicitations/ORECs (last visited Nov. 16, 2019).

[14] *See Electric Power Markets: National Overview*, FED. ENERGY REGULATORY COMM'N, https://www.ferc.gov/market-oversight/mkt-electric/overview.asp (last updated Apr. 10, 2019).

[15] *See* Peter Crampton, *Electricity Market Design,* 33 OXFORD REV. ECON. POL'Y 589, 594–96, 598 (2017).

[16] *See Wind's Near-Zero Cost of Generation Impacting Wholesale Electricity Markets*, DEP'T OF ENERGY (May 8, 2018), https://www.energy.gov/eere/wind/articles/winds-near-zero-cost-generation-impacting-wholesale-electricity-markets; *see also Hydropower Upgrades to Yield Added Generation at Average Costs Less*

variability in the output of these resources, for example due to cloud cover that reduces solar output, market designs need to evolve to more accurately value services, such as ability to quickly increase or decrease production, that were not as crucial (and, hence, neglected) before.

The final challenge is related to the interaction between state and federal authorities. Any state-level policy initiative to achieve a certain composition of generators will inevitably affect wholesale rates because changing the composition of generators would also change the market price. Two separate court cases have explored whether or not this indirect effect means that a state policy instrument like a zero-emission credit would be preempted. In these cases, both the Second Circuit and the Seventh Circuit upheld states' use of these instruments, and the Supreme Court denied to hear the case, affirming states' rights.[17] However, as FERC described in its brief to the Second Circuit, it has the authority "to ameliorate, as needed, detrimental effects on markets within its jurisdiction."[18] Whether these policies in fact cause "detrimental" effects on wholesale markets has indeed been the focus of many contentious debates between states, wholesale market operators, and FERC. And, if and how FERC will use its authority to "ameliorate" these indirect effects will necessarily affect the cost-effectiveness and the pace of clean energy transition.

The economic efficiency of energy policies will depend on if and how we address all of these questions, and state and federal regulators' willingness to rely on economics and science in policy design as we tackle them.

C. *Policy Integrity's Contributions*

In the past ten years, Policy Integrity has participated in numerous local, state, and federal proceedings to provide input to

Than 4 cents per kWh—Without New Dams, DEP'T OF ENERGY (Nov. 4, 2009), https://www.energy.gov/articles/hydropower-upgrades-yield-added-generation-average-costs-less-4-cents-kwh-without-new-dams (touting extremely low marginal cost of power produced by new hydroelectric technology); *Geothermal FAQs*, DEP'T OF ENERGY, https://www.energy.gov/eere/geothermal/geothermal-faqs#geothermal_energy_cost (last visited Sept. 12, 2019).

[17] *See* Elec. Power Supply Ass'n v. Star, 904 F.3d 518, 518–25 (7th Cir. 2018), *cert. denied* 587 U.S. 868 (2019); *see also* Coal. for Competitive Elec. v. Zibelman, 906 F.3d 41, 45–46 (2d Cir. 2018).

[18] *Coal. for Competitive Elec.*, 906 F.3d at 45–46.

improve the design of regulations, as well as the quality of the accompanying economic analyses. Our comments in these proceedings generally focused on three main issues: improving the use of cost-benefit analysis; internalizing greenhouse gas and air pollution externalities in markets; and improving the economic efficiency of market designs.

1. *Advancing State Energy Policies*

Policy Integrity has provided extensive input to multiple states on how to conduct cost-benefit analysis to achieve economically efficient outcomes in electricity regulation.[19] In our comments, we generally have argued for using societal cost-benefit analysis, and monetizing all costs and benefits, including values that are not traditionally monetized such as pollution reduction and resilience. Our comments have been well received and many of our suggestions have been adopted in several states, including industry-leading states such as California and New York.[20]

[19] *See, e.g.*, Inst. for Policy Integrity, Comment Letter on Proceeding on Motion of the Commission in Regard to Reforming the Energy Vision (Aug. 21, 2015), https://policyintegrity.org/documents/REV_Comments_Aug2015.pdf; *see also* Inst. for Policy Integrity, Comment Letter on Investigation into Modernizing the Energy Delivery Structure for Increased Sustainability (Aug. 31, 2015), https://policyintegrity.org/documents/Institute_for_Policy_Integrity_Comments_on_FC_1130_Investigation_into_Modernizing_the_Energy_Delivery_Structure_for_Increased_Sustainability.pdf; Inst. for Policy Integrity, Comment Letter on the Matter of Benefit Cost Analysis Handbooks (Sept. 26, 2016), https://policyintegrity.org/documents/BCA_Handbook_Reply_Comments.pdf; Inst. for Policy Integrity, Comment Letter on Order Instituting Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources (Oct. 2, 2014), https://policyintegrity.org/documents/Policy_Integrity_SCT_Comments.pdf; Inst. for Policy Integrity, Comment Letter on Discussion Draft, 2030 Target Scoping Plan Update (Dec. 16, 2016), https://policyintegrity.org/documents/Policy_Integrity_ARB_use_of_SCC_under_AB_197_FINAL.pdf.

[20] *See* Decision Adopting Cost-Effectiveness Analysis Framework Policies for All Distributed Energy Resources, 2019 Cal. PUC LEXIS 233 (Cal. P.U.C. May 16, 2019); *see also* Cal. Pub. Util. Comm'n, Ruling Seeking Responses to Questions and Comment on Staff Amended Proposal on Societal Cost Test, attachment 1 at 8 (Mar. 14, 2018), http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M212/K023/212023660.PDF ("Staff was persuaded by the arguments of the Institute for Policy Integrity to use the value recommended by the Interagency Working Group (IWG) for the social cost of carbon."); Order Adopting a Clean Energy Standard, 2016 N.Y. PUC LEXIS 425, 230 (N.Y.P.S.C. Aug. 1, 2016) ("As emphasized by the Institute for Policy Integrity, the value of avoided carbon emissions is most accurate if tied to the value of the avoided

We have been especially successful in our efforts to have regulators incorporate greenhouse gas externalities in electricity rulemakings. In particular, New York State relied on our comments[21] in deciding to use the social cost of carbon (SCC) in various resource compensation mechanisms, such as to calculate zero-emission credit payments for nuclear resources and to calculate a price floor for the environmental value of distributed energy resources.[22] In subsequent litigation on the zero-emission credits, we have submitted amicus briefs explaining how the state's use of the SCC was consistent with economic methodology.[23] And, the fact that the state, relying on our comments, calculated the payments to nuclear resources as a separate environmental attribute based on the SCC instead of a value "tethered" to wholesale energy markets played a key role in the federal court decision upholding the state's policy.[24] New York's example lead other states, including New

external damage, or the value of avoiding the carbon emissions that would be emitted if zero-carbon generators are replaced by other generators.").

[21] *See* Inst. for Policy Integrity, Comment Letter on Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (Jan. 8, 2018), https://policyintegrity.org/documents/Comments_to_NYDPS_on_CES_Tief_2.pdf; *see also* Inst. for Policy Integrity, Comment Letter on Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (Oct. 31, 2016), https://policyintegrity.org/documents/Policy_Integrity_CES_Petition_Comments.pdf; Inst. for Policy Integrity, Comment Letter on Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (Jul. 22, 2016), https://policyintegrity.org/documents/Policy_Integrity_Comments_on_Staffs_Responsive_Proposal_for_Preserving_Zero-Emissions_Attributes.pdf; Inst. for Policy Integrity, Comment Letter on Proceeding on Motion of the Commission to Implement a Large-Scale Renewable Program and a Clean Energy Standard (Apr. 22, 2016), https://policyintegrity.org/documents/Comments_on_Clean_Energy_Standard_White_Paper.pdf.

[22] *See* Order Adopting a Clean Energy Standard, 2016 N.Y. PUC LEXIS 425; Re Value of Distributed Energy Resources; Re Community Net Metering Program, 339 P.U.R.4th 335 (N.Y.P.S.C. Sept. 14, 2017).

[23] *See* Proposed Brief of the Institute for Policy Integrity at New York University School of Law as *Amicus Curiae* in Support of Defendants-Respondents, Hudson River Sloop Clearwater, Inc., v. N.Y. Pub. Serv. Comm'n, No. 16-07242 (N.Y. Sup. Ct. Mar. 28, 2018), https://policyintegrity.org/documents/03.28.18_ZEC_NY_State.pdf; *see also* Brief of Independent Economists, Coal. for Competitive Elec., v. Zibelman, 906 F.3d 41 (2d Cir. 2018) (No. 17-2654), https://policyintegrity.org/documents/Independent_Economists_Brief_for_Defendants-Appellees.pdf; *see also* Brief of the Institute for Policy Integrity, *Coal. for Competitive Elec.*, 906 F.3d 41 (No. 17-2654), https://policyintegrity.org/documents/Coalition_for_Competitive_Electricity_-_Policy_Integrity_Amicus_Brief_As_Filed.pdf.

[24] *See Coal. for Competitive Elec.*, 906 F.3d at 54.

Jersey and Illinois, to similarly use the SCC in their calculation of zero-emission credit payments.

We have also been successful in our advocacy to encourage the use of the SCC in energy decisionmaking, including in California, Nevada, Colorado, and Minnesota.[25] These states have adopted the SCC to use in resource-planning decisions or cost-benefit analysis, both of which improve the economic efficiency of resulting regulatory decisions.[26] The growing number of states that use the SCC indicates that the SCC is gaining momentum in electricity rulemaking as a flexible tool. To increase this momentum, we researched states' existing statutes and regulations on their ability to value climate impacts in electricity policy. Our analysis shows that there are twenty-two other states that have either an environmental cost statute or a public interest mandate that would allow this valuation, providing opportunities for continuing Policy Integrity's advocacy efforts to have states implement rational policies by internalizing climate damages from the electricity sector.[27]

Finally, Policy Integrity has been playing an active role in multiple states to improve the economic efficiency of market designs by helping to determine the appropriate methodology for compensating distributed energy resources for their full value,

[25] *See* Pub. Util. Comm'n of the State of California, Ruling Seeking Responses to Questions and Comment on Staff Amended Proposal on Societal Cost Test, attachment 1 at 8 (Mar. 14, 2018), http://docs.cpuc.ca.gov/PublishedDocs/Efile/G000/M212/K023/212023660.PDF; *see also* Nev. Pub. Util. Comm'n, Final Order Adopting Regs Pursuant to SB 65 (Aug. 20, 2018), http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2015_THRU_PRESENT/2017-7/32153.pdf; Inst. for Policy Integrity, Comment Letter on Investigation and Rulemaking to Implement the Provisions of SB 65 (2017) (Oct. 17, 2017), https://policyintegrity.org/documents/WRA_EDF_IPI_Reply_Comments_Final.pdf; Inst. For Policy Integrity, Comment Letter on Investigation and Rulemaking to Implement the Provisions of SB 65 (2017) (Oct. 11, 2017), https://policyintegrity.org/documents/2017-10-11_Joint_Comments_on_NV_SB65.pdf.

[26] *See* Herman Trabish, *Carbon Calculus: More States Are Adding Carbon Costs to Utility Planning Guidelines*, UTIL. DIVE (Aug. 31, 2017), https://www.utilitydive.com/news/carbon-calculus-more-states-are-adding-carbon-costs-to-utility-planning-gu/503613/; LEGISLATIVE ANALYST'S OFFICE, ASSESSING CALIFORNIA'S CLIMATE POLICIES—AN OVERVIEW (Dec. 21, 2018), https://lao.ca.gov/Publications/Report/3911.

[27] *See generally* DENISE A. GRAB ET AL., INST. FOR POLICY INTEGRITY, OPPORTUNITIES FOR VALUING CLIMATE IMPACTS IN U.S. STATE ELECTRICITY POLICY (2019), https://policyintegrity.org/files/publications/Valuing_Climate_Impacts.pdf.

including their environmental and public health value.[28] Our scholarship and comments helped New York State improve its "Value Stack" framework to compensate distributed energy resources for their energy, capacity, distribution, and environmental value separately.[29] In addition, we have led a working group with a diverse set of New York stakeholders to analyze different methods the state can use to compensate distributed energy resources for their environmental and public health benefits.[30] Our work showed that these benefits are time- and location-variant, and the compensation for these benefits should also be similarly time- and location-variant.[31] As a result, the state is currently working on refining its original, flat compensation mechanism.[32] Similarly, our

[28] *See* Inst. for Policy Integrity, Comment Letter on Rulemaking Regarding Policies, Procedures and Rules for the California Solar Initiative, the Self-Generation Incentive Program and Other Distributed Generation Issues (Sept. 26, 2018), https://policyintegrity.org/documents/Policy_Integrity_SGIP_Comments_R1211005.pdf; *see also* Inst. for Policy Integrity, Comment Letter on Rulemaking to Develop an Electricity Integrated Resource Planning Framework and to Coordinate and Refine Long-Term Procurement Planning Requirements (Feb. 11, 2016), https://policyintegrity.org/documents/R1602007_Policy_Integrity_IRP_Comments_06-28-17.pdf; Inst. for Policy Integrity, Comments Letter on Rulemaking to Create a Consistent Regulatory Framework for the Guidance, Planning, and Evaluation of Integrated Distributed Energy Resources (Oct. 2, 2014), https://policyintegrity.org/documents/CPUC_Policy_Integrity_-_Response_to_Utilities_Motion_for_Hearing.pdf.

[29] *Compare* N.Y. DEP'T PUB. SERV., WHITE PAPER ON RATEMAKING AND UTILITY BUSINESS MODELS 76 (2015), http://documents.dps.ny.gov/public/Common/ViewDoc.aspx?DocRefId={48954621-2BE8-40A8-903E-41D2AD268798} (proposing the use of LMP+D value stack framework), *with* Order on Net Energy Metering Transition, Phase One of Value of Distributed Energy Resources, and Related Matters, 2017 N.Y. PUC LEXIS 121, 288–94 (N.Y.P.S.C. Mar. 9, 2017) (addressing Policy Integrity's suggestion to separate the energy, capacity, distribution, and environmental values).

[30] *See generally* JEFFREY SHRADER ET AL., INST. FOR POLICY INTEGRITY, VALUE OF DISTRIBUTED ENERGY RESOURCES – E/EJ VALUE INFORMAL SUBGROUP – TRACK 1 AND 2 REPORT (2018), https://policyintegrity.org/documents/DER_Value_Stack_E_Value_Report_07.09.18.pdf.

[31] *See* JEFFREY SHRADER ET AL., INST. FOR POLICY INTEGRITY, VALUING POLLUTION REDUCTIONS: HOW TO MONETIZE GREENHOUSE GAS AND LOCAL AIR POLLUTANT REDUCTIONS FROM DISTRIBUTED ENERGY RESOURCES i-ii (2018), https://policyintegrity.org/files/publications/Valuing_Pollution_Reductions.pdf; *see also* INST. FOR POLICY INTEGRITY, HOW STATES CAN VALUE POLLUTION REDUCTIONS FROM DISTRIBUTED ENERGY RESOURCES 2 (2018), https://policyintegrity.org/files/publications/E_Value_Brief_-_v2.pdf.

[32] *See* Order Regarding Value Stack Compensation, 2019 N.Y. PUC LEXIS 116, 23 (N.Y.P.S.C. Apr. 18, 2019) ("Finally, development of the Value Stack will

earlier research on the public health benefits of regulations helped the New York City Department of Environmental Protection adopt a major rule to switch buildings away from burning dirty fuels.[33]

2. *Advancing Federal Energy Policies*

Policy Integrity has also been active in proceedings at the federal level. We have advocated directly in front of FERC, as well as through the stakeholder processes of several wholesale market operators, which are regulated by FERC. Our advocacy efforts have focused on improving the design of wholesale markets to allow for efficient participation of all resources, including renewables and distributed energy resources;[34] explaining the ways the markets need to evolve to take into account externalities;[35] and discussing how FERC-jurisdictional wholesale markets can evolve in the face of state-jurisdictional climate policies.[36]

Policy Integrity has been actively involved in discussions on how wholesale energy market designs should evolve as we move toward a clean grid. For example, we have been participating in stakeholder discussions for carbon pricing in New York's wholesale market.[37] We have been supporting carbon pricing in wholesale markets as a more cost-effective and a technology-neutral way of achieving emission reductions in the power sector. We have presented at stakeholder meetings to support the use of the SCC[38]

continue following this Order, including review of the Environmental Value calculation methodology and whether that value can be made time-varying to reflect the impact of generation in reducing emissions at different points during the day and during the year.").

[33] *See Helping NYC Reach a Clean Air Milestone*, INST. FOR POLICY INTEGRITY: PROJECT UPDATES (July 1, 2015), https://policyintegrity.org/what-we-do/update/helping-nyc-reach-a-clean-air-milestone.

[34] *See* Sylwia Bialek & Burcin Unel, *Will You Be There for Me the Whole Time? On the Importance of Obligation Periods in Design of Capacity Markets*, 32 ELECTRICITY J. 21 (2019).

[35] *See, e.g.*, SYLWIA BIALEK & BURCIN UNEL, INST. FOR POL'Y INTEGRITY, CAPACITY MARKETS AND EXTERNALITIES (2018), https://policyintegrity.org/publications/detail/capacity-markets-and-externalities.

[36] *See, e.g.* Comments of the Institute for Policy Integrity at New York University School of Law, FERC No. ER19-467-000 (Feb. 7, 2019).

[37] *See* Inst. for Policy Integrity, Comments on the Notice on Process, Soliciting Proposals and Comments, and Announcing Technical Conference (Nov. 30, 2017). https://policyintegrity.org/documents/Comments_NYISO_Carbon_Pricing_DPS.pdf

[38] *See, e.g.*, Inst. for Policy Integrity, Social Cost of Carbon, Presented to IPPTF, Albany, NY (Apr. 23, 2018). https://www.nyiso.com/documents/20142/

and produced scholarly work discussing FERC's authority on the issue.[39]

We have also been contributing to discussions on market design questions. For example, we have submitted comments to FERC on how to think about capacity markets in the face of externalities,[40] how to design seasonal capacity markets,[41] how to define and value resilience,[42] and how to design participation rules for energy storage and distributed energy resources participation.[43] We have also published reports on some of these issues, which have been cited extensively by other stakeholders in their comments.[44] And, we continue to directly participate in market reform

1393516/SCC%20PowerPoint%20for%20NYISO%20Meeting%204.23.pdf/53c8288a-3a17-181a-740c-83a04c0fd76e.

[39] *See* Bethany A. Davis Noll & Burcin Unel, *Markets, Externalities, and the Federal Power Act: The Federal Energy Regulatory Commission's Authority to Price Carbon Dioxide Emissions*, 27 N.Y.U. ENVTL. L. J. 1 (2019).

[40] *See* Inst. for Policy Integrity, Comment Letter on Potential revisions to the PJM Interconnection, L.L.C. Capacity Market, the Reliability Pricing Model (Nov. 6, 2018), https://policyintegrity.org/documents/Policy_Integrity_Reply_Docket_EL18-178_FOR_FILING.pdf.

[41] *See* Inst. for Policy Integrity, Comment Letter on Seasonal Capacity Markets and Electricity Demand (July 12, 2018), https://policyintegrity.org/documents/Policy_Integrity_Post-Tech_Conference_Comments.pdf.

[42] *See* Inst. for Policy Integrity, Comment Letter on the Federal Energy Regulatory Commission Electric Grid Resilience Order (July 12, 2018), https://policyintegrity.org/documents/Policy_Integrity_FERC_Resilience_Comments_050918.pdf.

[43] *See* Inst. for Policy Integrity, Comment Letter on Proposed Rulemaking for Electric Storage Participation in Markets Operated by Regional Transmission Organizations and Independent System Operators, 18 C.F.R. pt. 35 (Jan. 30, 2017), https://policyintegrity.org/documents/FERC_DER_Energy_Storage_Comments.pdf.

[44] *See, e.g.*, Nat. Res. Def. Council, Alliance for Clean Energy New York and Acadia Center, Comments of the Clean Energy Advocates on NYISO's Proposed Application of Buyer-Side Mitigation Rules to DERs (June 15, 2018), https://www.nyiso.com/documents/20142/1403297/20180615%20Clean%20Energy%20Advocates%20Comments%20re%20NYISO%20BSM%20Proposal%20for%20DERs.pdf/89ac3877-7822-a348-e8de-23838c529065; Request for Rehearing or, in the Alternative, Extension of Time of the Office of the People's Counsel for the District of Columbia, Citizens Utility Board, Maryland Office of the People's Counsel, and Kentucky Office of the Attorney General, Office of Rate Intervention, FERC No. EL18-178-000 (July 30, 2018); Protest of Clean Energy Advocates, FERC No. ER18-1314 (May 7, 2018); Order Rejecting Proposed Tariff Revisions, Granting in Part and Denying in Part Complaint, and Instituting Proceeding Under Section 209 of the Federal Power Act, 163 FERC ¶ 61,236 (June 29, 2018) (No. EL18-178-000) (Glick, Commissioner, dissenting).

discussions in multiple wholesale markets, including NYISO, PJM, and MISO.

3. *Thinking About the Future of Energy Regulation*

The most exciting period of energy law and policy is yet to come. Technologies that are already in use, such as solar panels and energy storage, technologies that are currently in their infancy, such as electricity trading using blockchain, as well as technologies that we cannot even foresee today are going to disrupt the energy markets in ways that we cannot currently predict. And, given how fast such disruptions can transform markets, energy scholars and policymakers should already be thinking about, and even moving forward with implementing, technology-neutral regulatory frameworks that can accommodate new resources based on the value they bring to grid, including their external costs and benefits.

At Policy Integrity, we have indeed been authoring academic publications discussing the regulatory challenges and policy solutions to manage the future of the electricity grid. In our forward-looking academic work, we have explained how distributed energy resources should be compensated, how energy storage policies should be designed, as well as how retail electricity pricing should be reformed.[45] We have explored how capacity markets should be designed when there is increasing seasonal variation in both electricity demand (due to extreme weather events) and electricity supply (due to higher penetration of resources such as wind and solar).[46] Finally, we have analyzed the role and the authority of FERC to price carbon-dioxide emissions in wholesale energy markets as a way of harmonizing wholesale markets with state clean energy goals.[47]

And, going forward, Policy Integrity will continue to work on issues that are at the forefront of energy policy discussions as advocates, academics, and thought leaders.

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[45] *See* Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid: Modernizing Rate Design*, 44 HARV. ENVTL L. REV. (forthcoming Feb. 2020); *see also* Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid: Energy Storage and Greenhouse Gas Emissions*, 42 HARV. ENVTL L. REV. 139, 143 (2018); Richard L. Revesz & Burcin Unel, *Managing the Future of the Electricity Grid: Distributed Generation and Net Metering*, 41 HARV. ENVTL L. REV. 43, 45–46 (2017).

[46] *See* Bialek & Unel, *supra* note 34, at 22.

[47] *See* Davis Noll & Unel, *supra* note 39, at 2, 7–8.

Conclusion

As we continue to move closer to a clean energy future, with advanced technologies being a crucial component of the future grid, the current paradigm of energy regulation will necessarily have to change. New policy designs will be needed to efficiently integrate new technologies. And, both state and federal regulators will have to adapt to this future where the jurisdictional lines are not so bright any more.

At this exciting moment in energy regulation, we convened a panel of state and federal regulators to share their thoughts on the future of energy regulation. Their remarks follow.

REMARKS OF CHERYL A. LAFLEUR[**]

Thank you very much Burcin and Ricky and everyone here for all the work you do in proceedings at FERC and in this area. We need all the help we can get in the quest for rationality. I know you didn't go over my whole bio, but I just want to pull out one little-known element. I am a mother-in-law of a proud graduate of the New York University School of Law. I haven't been on the NYU law campus since I lived in an NYU law dorm in 1977, long before my son-in-law was born. But I'm very happy to be here today.

First, I will get the legal stuff out of the way. I speak only for myself, not for any other commissioner or the commission. And as Burcin said, I can talk about rulemakings and broad policy issues we are addressing, but I can't talk about specific adjudicated open dockets among parties.

I've been at FERC for eight years. We are a bipartisan commission, an independent agency like the Securities Exchange Commission, the Federal Communication Commission, and others. We're bipartisan by design, with no more than three commissioners from any political party, normally the President's.[48] I'm in my second term. I was there for six years as part of a Democratic administration. I was there for an unprecedented six-month stretch

[**] Cheryl A.LaFleur was a Commissioner on the Federal Energy Regulatory Commission from July 2010 through August 2019.

[48] *See* Slideshow, Fed. Energy Regulatory Comm'n, An Overview of the Federal Energy Regulatory Commission and Federal Regulation of Public Utilities (June 2018), https://www.ferc.gov/about/ferc-does/ferc101.pdf.

of having no quorum.[49] For a while I was the only commissioner, then we restocked, and now for the last year-plus, I have been a minority Democratic commissioner as part of the Republican administration, although right now we are short-staffed, again. We are two Republican commissioners, including the chairman, and two Democratic commissioners, and awaiting another nomination.

During the entire span of the time I've been at FERC, a great deal of our work in all areas has been driven by profound changes in how our nation generates, transmits, and uses energy. These changes are being driven by the growth of domestic natural gas, the growth of renewables, storage, and demand-side technologies, and the increasing recognition of environmental issues, especially climate change. The drivers are leading to a lot of new resources that are different in their cost patterns, operational patterns, and geography than the ones we used for most of the twentieth century. And that's driving a lot of change and turmoil. Those adaptations are being felt in different ways in different parts of the country, because different parts of the United States have different underlying regulatory structures, but energy technology is changing everywhere. What's happening as we try to wend our way through the technology and policy changes is that these decisions are being made in the context of a very complicated political and constitutional ecosystem, with some work done at the federal level, a lot done in fifty statehouses, some by environmental regulators, and some by economic regulators such as FERC. But there are not neat divisions between these authorities and their responsibilities. All of these worlds overlap.

It would be much simpler, although certainly not preferable in my view, to be in an authoritarian society like China, where somebody says, we shall change to this form of energy, and things change. That's not how the United States works. Change happens in fits and starts and is debated in a lot of places at once. At FERC we are primarily an economic regulator, but our work is strongly shaped by environmental choices that are being made at the federal and state level. We are an environmental regulator in our infrastructure work, when we're issuing permits to gas pipelines and liquified natural gas facilities. We're the lead agency under the National Environmental

[49] *See* John Siciliano, *Trump's FERC Chairman Says Lack of Quorum Was Historic*, WASH. EXAMINER (Aug. 10, 2017), https://www.washingtonexaminer.com/trumps-ferc-chairman-says-lack-of-quorum-was-historic.

Policy Act (NEPA), so we do the environmental review.[50] Right now, there has been quite a lot of debate, very heated, on whether and how we take into account climate impacts of gas infrastructure in our permitting decisionmaking, something that NYU and this institute have been very involved in.

FERC is a creature of statute, applying the laws that govern us. Some of them are quite old, like the Federal Power Act and the Natural Gas Act, but have been overlaid with years of precedential interpretation in the courts and at the commission. We apply those laws to the factual record before us. There's often a policy through-line in our work, but we have to start with the law and the record. That's our defining ethos.

A big issue that we've been confronting for the last couple of years is how to reconcile the wholesale interstate regional market structures for electricity in the United States with state initiatives to select specific resources that might not otherwise be selected under existing market rules.

Wholesale markets were set up about twenty years ago in response to the growth of independent power beginning in the 1980s, customer concern over the high cost of some utility-built baseload generation, and the availability of new technology alternatives, especially natural gas generation.[51] The central concept was to establish competitive wholesale markets to select and deploy resources. And in my opinion, having lived through all stages of competitive markets so far, they have worked very well for customers. They have done what they were designed to do, which is to continually find the cheapest resources to keep the lights on at

[50] *See FERC – NEPA Review (9-FD-i)*, OPENEI (Aug. 19, 2019), https://openei.org/wiki/RAPID/Roadmap/9-FD-i (citing 40 C.F.R. § 1508.18 (1978)) (explaining FERC's responsibility to incorporate NEPA review into its decisionmaking); *see also Pre-Filing Environmental Review Process*, FED. ENERGY REGULATORY COMM'N, https://www.ferc.gov/resources/processes/flow/lng-1-text.asp (last visited Sept. 12, 2019) (describing FERC's unique responsibilities under NEPA); *Students Corner: FERC and the Environment,* FED. ENERGY REGULATORY COMM'N, https://www.ferc.gov/students/environment.asp (last visited Sept. 12, 2019) (discussing FERC's role of analyzing environmental impacts of proposed projects under NEPA).

[51] *See* PAUL L. JOSKOW, CTR. FOR ENERGY & ENVTL. POLICY RESEARCH, MARKETS FOR POWER IN THE UNITED STATES: AN INTERIM ASSESSMENT 2, 19 (2005), http://ceepr.mit.edu/files/papers/2005-012.pdf (describing the wholesale energy market initiatives of the late 90s and 2000s). *See also* DAVID YERGIN, THE QUEST: ENERGY, SECURITY, AND THE REMAKING OF THE MODERN WORLD 382–98 (2d ed. 2012).

any particular moment—sustain reliability at least cost. In recent years, the resource changes that I've mentioned, particularly the growth of affordable natural gas generation and zero marginal cost wind and solar, have brought energy prices down in the markets sharply,[52] which in many ways is very good for customers. But they've roiled the market because they've created winners and losers, as markets do, and led to concerns and efforts on behalf of the resources that are not thriving in the market. I'll just give a few examples.

At the federal level, the Trump administration has been open about its desire to ensure the success, to subsidize older uneconomic baseload coal units that are challenged in the market and that otherwise retire.[53] Other baseload generation like nuclear has been discussed as well, but a lot of the heat in the discussion has been around coal.

Several states, including New York,[54] New Jersey,[55] Illinois,[56] and Connecticut,[57] have been seeking to subsidize uneconomic nuclear units for various state policy reasons, both environmental and economic, most often through requiring distribution-level

[52] *See* Megan Mahajan, *Plunging Prices Mean Building New Renewable Energy Is Cheaper Than Running Existing Coal*, FORBES (Dec. 3, 2018), https://www.forbes.com/sites/energyinnovation/2018/12/03/plunging-prices-mean-building-new-renewable-energy-is-cheaper-than-running-existing-coal/#7add5eac31f3 (discussing how growth in wind and solar energy has lowered market prices); *see also, Natural Gas Explained: Factors Affecting Natural Gas Prices*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/energyexplained/natural-gas/factors-affecting-natural-gas-prices.php (last updated July 12, 2019) (explaining that increases in natural gas production lowers natural gas prices).

[53] *See, e.g.,* Brad Plumer, *Plan to Rescue Coal and Nuclear Plants is Rejected*, N.Y. TIMES, Jan. 9, 2018, at A16. (discussing the administration's ultimately failed attempt to subsidize coal power plants).

[54] DANIEL SHEA & KRISTY HARTMAN, NAT'L CONFERENCE OF STATE LEGISLATORS, STATE OPTIONS TO KEEP NUCLEAR IN THE ENERGY MIX 35 (2017), http://www.ncsl.org/Portals/1/Documents/energy/StateOptions_NuclearPower_f05_WEB.pdf (noting New York's attempts to subsidize nuclear units).

[55] *See* Scott DiSavino, *New Jersey Governor Signs Nuclear Power Subsidy Bill Into Law*, REUTERS (May 23, 2018), https://www.reuters.com/article/us-new-jersey-pseg-exelon-nuclear/new-jersey-governor-signs-nuclear-power-subsidy-bill-into-law-idUSKCN1IO2RL (describing New Jersey's proposal to subsidize nuclear units, in order to promote clean energy initiatives and create jobs).

[56] *See* SHEA & HARTMAN, *supra* note 54, at 34 (discussing Illinois' legislative attempts to subsidize nuclear plants).

[57] *See id.* at 12, 33 (discussing Connecticut's attempts to subsidize nuclear energy).

electric customers to pay resource specific credits to those units. Many other states, including some of the same ones, such as Massachusetts,[58] New York,[59] and New Jersey,[60] are running very large procurements for offshore wind to meet various clean energy goals, while seeking market rules to enable those resources to be accepted in the forward capacity markets, so they won't have to buy duplicate resources.[61]

Since 2016, with the abdication of federal actions on climate, such state actions have only accelerated. I expect that trend to continue, at least for the next few years assuming no federal climate action during this administration. More climate action at the state level is causing more tension between regional market structures and the states. Companies that invested in resources in reliance on the wholesale market structures without state support, particularly gas generators that built into the market largely to replace coal over the last decade, have initiated judicial and administrative litigation efforts to try to defeat or change the impact of the state policies to choose other resources. A couple of weeks ago, the Seventh Circuit Court of Appeals ruled that state programs to pay nuclear units zero emissions credits are not preempted by FERC's authority over wholesale markets.[62] And yesterday the Second Circuit agreed, in a longer opinion, that those programs are not preempted.[63] In part, they said they were not preempted because FERC already has the authority under the Federal Power Act to require market changes if

[58] *See* Nichola Groom, *Massachusetts, Rhode Island Award Major Offshore Wind Contracts*, REUTERS (May 23, 2018), https://www.reuters.com/article/us-usa-wind-offshore/massachusetts-rhode-island-award-major-offshore-wind-contracts-idUSKCN1IO33L.

[59] *See 2018 Solicitation Results*, N.Y. STATE ENERGY RESEARCH & DEV. ADMIN., https://www.nyserda.ny.gov/All-Programs/Programs/Offshore-Wind/Offshore-Wind-Solicitations/Generators-and-Developers/2018-Solicitation (last visited Nov. 16, 2019).

[60] *See* Press Release, State of N.J., Governor Murphy Signs Executive Order to Promote Offshore Wind Energy (Jan. 31, 2018), https://nj.gov/governor/news/news/562018/approved/20180131a_eo.shtml.

[61] *See, e.g.*, ISO New England, Comments on Competitive Auctions and Sponsored Policy Resources Proposed Filing (Jan. 29, 2018), http://nescoe.com/resource-center/caspr-comments-jan2018; Gavin Bade, *Electricity Markets: States Reassert Authority Over Power Generation,* UTIL. DRIVE (Oct. 16, 2018), https://www.utilitydive.com/news/electricity-markets-states-reassert-authority-over-power-generation/539658/.

[62] *See* Elec. Power Supply Ass'n v. Star, 904 F.3d 518, 524 (7th Cir. 2018).

[63] *See* Coal. for Competitive Elec. v. Zibelman, 906 F.3d 41, 46 (2d Cir. 2018).

needed to protect the integrity of the market price.[64] That is what the United States, on behalf of FERC, had argued in the amicus brief at the Seventh Circuit: that FERC had the market authority to adapt markets as necessary, so there was no preemption.[65] It calls to mind the saying "Beware of what you want, you may get it."

So, now these cases are squarely at FERC. My personal goal has been to adapt the markets to meet state objectives while still obtaining market benefits for customers. I think if we're going to change the model of how we select resources, we should do so in a very deliberate and thoughtful way with everyone involved. I'm concerned about unplanned reregulation if we chip away at markets everywhere. I would far rather have a thoughtful market design solution at a regional level. And that's what I've been pushing.

So far the different regional markets are headed toward different plans. In New York, where we stand, they are discussing the economists' Plan A: direct carbon pricing in the energy market. They haven't done it yet, but they appear to be on a path to do it.[66] And this is in addition to the regional greenhouse gas pricing, which does not fully reflect the effective price the state is placing on carbon reduction.[67] The carbon price would be in some way derived from the SCC. This structure would represent the most market-compatible way to set a clean energy or carbon target and then use economic markets to meet it, to make sure you meet the target in the most efficient way. You could still run the market because the value you seek is already monetized in whatever carbon price you use. New York is working toward that, and at some point will presumably be filing a new market structure for FERC to consider.

Up in New England, where I'm from, they've been dealing primarily with the issue of forward procurement of big swaths of

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64 *See id.* at 46, 55–57.

65 *See* Brief for United States as Amici Curiae Supporting Respondents, *Elec. Power Supply Ass'n*, 904 F.3d 518 (Nos. 17-2433 & 17-2445).

66 *See* Gregory Scruggs, *After Defeat in West, U.S. Carbon Tax Pushes East*, REUTERS (Nov. 8, 2018), https://www.reuters.com/article/us-usa-election-carbontax-analysis/after-defeat-in-west-u-s-carbon-tax-push-looks-east-idUSKCN1ND1PT (including New York among states whose legislatures are considering carbon pricing).

67 *See Regional Greenhouse Gas Initiative Auction Prices Are the Lowest Since 2014*, U.S. ENERGY INFO. ADMIN (May 31, 2017), https://www.eia.gov/todayinenergy/detail.php?id=31432 (discussing New York's involvement in a regional gas pricing program, as well as New York's general decrease in gas pricing).

clean energy that might not be selected economically in the market, particularly offshore wind and imported hydroelectricity. The market operator there, the Independent System Operator of New England, came up with a plan to run a second market auction. After you choose resources in the forward auction, you then do another procurement in which new state-selected resources can replace some of those already chosen.[68] It's an attempt to use market structures to choose the most economical of the clean resources without affecting the pricing of the resources that aren't subsidized in the market.[69] It was approved by FERC in March on a split vote.[70] I voted for it. Currently it is subject to pending rehearing petitions, so that is all I can say about that.

Most controversial of all is PJM, whose name reflects that it used to encompass Pennsylvania, Jersey, and Maryland, but it now serves thirteen states across the Mid-Atlantic and Midwest as well as the District of Columbia. In PJM, a lot of the controversy has been around the payments to subsidize nuclear units for their carbon-free properties. After spending more than a year trying to come up with a consensus market redesign proposal that would accommodate those efforts, PJM was unable to do so. So, PJM filed two proposals at FERC and said, here are two ideas, we will develop further the one you select. FERC rejected both of them and came up with its own idea, which was basically an approach to take subsidized resources out of the market entirely. Both of the Republicans who are still on the commission voted for it. Both of the Democrats who are still on the commission voted against it.[71] And it is now pending compliance and rehearing and will likely be a hot topic at FERC this winter.

As far as federal efforts, last fall FERC made a rare appearance in the world press when Energy Secretary Perry proposed a rulemaking to FERC, invoking a rarely used provision of the Federal

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[68] *See* ISO New England Inc., 162 FERC ¶ 61,205, ¶¶ 1, 7 (2018) (discussing the dual-auction mechanism advanced by the proposal).

[69] *See id.* ¶ 6 (discussing the proposal's goal of minimizing the effect to the prices of non-subsidized resources).

[70] *See id.* (LaFleur, concurring) (acknowledging that the decision was a split vote).

[71] *See* Robert Walton, *FERC Rejects PJM Capacity Market Reform Proposals, Seeks Quick Resolution*, UTIL. DIVE (June 30, 2018), https://www.utilitydive.com/news/ferc-rejects-pjm-capacity-market-reform-proposals-seeks-quick-resolution/526903 (noting that both Democrats on the board, Cheryl LaFleur and Richard Glick, voted against the decision).

Power Act, to order additional compensation of generation units operating in the competitive markets if they had ninety days of fuel on site.[72] And after a lot of speculation in the energy world about what would happen, in January 2018 FERC unanimously rejected that proposal.[73] Instead, we started our own docket to see if there is anything further we should be doing to ensure that the grid sustains resilience as resources change.[74] We have received a huge number of comments from everyone on all ends of the spectrum and that docket is pending before us.

In the meantime, the Trump administration has talked about using emergency provisions of either the Federal Power Act or the Defense Production Act to pay coal units directly.[75] There have been rumors that this is imminent, although whether to believe rumors is a tough question. I am assuming that eventually the next shoe will drop, and it will come to FERC to undoubtedly deal with complaints about what impacts any proposal has on the market. But, we shall see what happens.

All of this will continue. The resource changes aren't going anywhere. Climate policy is still expected to be made at the state level for the next couple of years, so we will be using our complicated constitutional federal system to work through these

[72] *See* Grid Resiliency Pricing Rule, 82 Fed. Reg. 46940 (proposed Sep. 28, 2017) (to be codified at 18 C.F.R. pt. 35); *see also Secretary Perry Urges FERC to Take Swift Action to Address Threats to Grid Resiliency,* U.S. DEP'T OF ENERGY (Sept. 29, 2017), https://www.energy.gov/articles/secretary-perry-urges-ferc-take-swift-action-address-threats-grid-resiliency.

[73] *See* Grid Reliability and Resilience Pricing, 162 FERC ¶ 61,012, ¶ 1 (2018) (acknowledging that Secretary Perry's proposal was rejected in January); Gavin Bade, *FERC Rejects DOE NOPR, Kicking Resilience Issue to Grid Operators*, UTIL. DIVE (Jan. 8, 2018), https://www.utilitydive.com/news/ferc-rejects-doe-nopr-kicking-resilience-issue-to-grid-operators/514334/ (noting that the decision was unanimous).

[74] *See* Press Release, Fed. Energy Regulatory Comm'n, FERC Initiates New Proceeding on Grid Resilience, Terminates DOE NOPR Proceeding (Jan. 8, 2018), https://www.ferc.gov/media/news-releases/2018/2018-1/01-08-18.asp#.XSyYs-tKjcs (stating FERC's plan to examine the importance on resources that may have resilience attributes needed in the market).

[75] *See* Steven Mufson, *Trump orders Energy Secretary Perry to Halt Shutdown of Coal and Nuclear Plants*, WASH. POST (June 1, 2018), https://www.washingtonpost.com/business/economy/trump-officials-preparing-to-use-cold-war-emergency-powers-to-protect-coal-and-nuclear-plants/2018/06/01/230f0778-65a9-11e8-a69c-b944de66d9e7_story.html?utm_term=.b772a1f90a15 (highlighting that the President plans to use the emergency provisions of the Federal Powers Act and Defense Production Act to pay coal units directly).

changes. It's going to be a lot of fun for everyone in the energy world. I am glad that all of you are interested in energy and the environment, because I know we will need the best and the brightest of the next generation to join us as we tackle these issues in the future.

Thank you very much.

Questions & Answers[ǂ]

On a question regarding the future of energy policymaking:

Well you posited two change drivers: concerns about climate and new technologies. We'll take those as given, at a hopefully accelerating rate. I would say we're seeing two conflicting forces that are in tension: regionalization and localization. One is, to some extent, new technologies and the concern about climate are forcing more regionalization because clean energy technology is not equally available all over the United States. There are locations where it's much better to put up large-scale central station wind and solar resources and build transmission infrastructure to deliver them to population centers. For example, in the western United States we are seeing considerable market sharing of resources across very diverse states and widely dispersed population centers. And that trend is pushing toward more regionalization in order to utilize more clean energy.[76] We may see more of that in the east when we start seeing more development of offshore wind as well. I think that building intraregional transmission may require an expanded federal role in transmission siting compared to what we have now. If we're really going to decarbonize, you may almost need a program like Abraham Lincoln and the railroads, and Dwight Eisenhower and the highways, to build more of a transmission grid to do that.

That's one big change driver. But the other is, simultaneously we're seeing the deployment of more and more distributed resources that collectively can operate like a power plant. These are the technologies at distribution level, even customer level. Behind-the-meter technologies are now collectively operating much

[ǂ] Responses from the Q&A session are below, along with relevant questions and panelist comments.

[76] *See, e.g.*, *Exploring Regional Solutions for a Green Grid*, CAL. INDEP. SYS. OPERATOR, http://www.caiso.com/informed/Pages/RegionalSolutions.aspx (last visited Sept. 9, 2019) (discussing the ISO studies showing that California's clean energy goals can be promoted by regionalization of the western U.S. energy market).

like a power plant used to. I think that clearly the distributed technologies have a big state role, but they probably also have a federal role where they're aggregated and shared across a region.

We just are going to have to live in this period where those things are in tension, because I see both of them continuing. If deep decarbonization down the road is the goal, we're going to need both forms of renewable energy, distributed generation and the large central station resources.

On a question regarding carbon pricing:

I think there are two macro problems standing in the way of climate carbon pricing. The first is that there is not national consensus that climate change is a problem, so there is no national climate strategy. There is the opposite of consensus, there is actually heated debate on this.

I just got back from Alaska and I saw the effects of climate change with my own eyes. I believe if we as a nation said, this is a big deal, we won World War II, we put a man on the moon, we can do this, then we certainly could do it. But unfortunately we're not there yet in terms of agreeing on collective action. If you want to know why there's not successful federal action, there's not a consensus among the parties that there is a problem we have to address. And that itself is a problem. I had a congressman say to me, when I referred to the fact that Congress hasn't acted on climate change, he said, we did act on climate change. Not passing the Waxman-Markey law was our action. That's what we think. It made me upset, but it was historically accurate.

Problem number two, as I said before, is that we have a complicated ecosystem in which to implement a solution—assuming we were collectively trying to do so. For example, consider PJM with its thirteen states, some are politically like Kentucky and West Virginia and others are like New Jersey and Maryland. That's perhaps why New York right now with a single state market seems to be a little closer to a market-based solution. But that is certainly a subsidiary problem to the lack of a national climate strategy.

On a question regarding ideal policy change, advice to states, and biggest challenge to rationality:

The first question is, if I had a magic wand: definitely federal level climate policy. It could be cap and trade or a carbon tax, but something federal that would be overarching program that other

efforts could fit into, so we didn't have to build it up from the bottom.

My advice to states is to work together, because regionalization has had a lot of benefits for customers. If we go back to our corners, it's not, in the long run, good for customers or the nation.

And to answer your question of what is the biggest challenge to rationality: in my opinion, politics and the election cycle.

REMARKS OF ANDREW G. PLACE[***]

It's a pleasure to be here. I have seven issues. Any one of them could be a day long symposium. Some big things, some minutia, some just venting my spleen, if I can quote Herman Melville. Pennsylvania, in comparison to New York, and many of our neighboring states—Pennsylvania is a tough political environment. I won't sugarcoat it; I may as well get that out upfront.

Pennsylvania by the numbers, I think, speaks to the complexity of our issues. We are a restructured state. We have a competitive retail market for electricity and natural gas. We're the largest net electricity exporter in the United States.[77] To put that in context, we export about thirty percent of our electricity generation, so exports to our neighbors, whether it's to our south, Maryland and New Jersey, or to our north, New England and New York.[78] That matters to our industry. We're also the third largest electricity producer period behind Texas and Florida. We rank second for energy production—everything from coal to natural gas, etc. We're also second for natural gas production behind Texas.[79] That is a four hundred pound gorilla. We're also second in the nation for nuclear production.[80] So again, a big deal for us. Another thing to hit our complexity, we're third in the country for coal production, which also brings us down to the bottom line.[81] We're third in the country

[***] Commissioner, Pennsylvania Public Utility.

[77] *See California Imports the Most Electricity From Other States; Pennsylvania Exports the Most,* U.S. ENERGY INFO. ADMIN. (Apr. 4, 2019), https://www.eia.gov/todayinenergy/detail.php?id=38912.

[78] *See* PA. PUB. UTIL. COMM'N, ELECTRIC POWER OUTLOOK FOR PENNSYLVANIA 2017–2022, at 61 (2018).

[79] *See State Profile and Energy Estimates: Pennsylvania Profile Overview,* U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/?sid=PA (last visited Nov. 16, 2019).

[80] *See id.*

[81] *See id.*

for CO_2 emissions, and that's just stack emissions.[82] However, particularly in the context of natural gas methane emissions, as a potent greenhouse gas, we cannot neglect upstream emissions.

Giving you the breakdown on the state's generation: we're pretty well balanced. Almost thirty percent from natural gas, twenty-five percent from coal, and forty percent generation from nuclear.[83] We do have a renewable carve-out.[84] We're also, speaking of PJM, about twenty percent of all generation in the regional grid, even though it's thirteen states and the District of Columbia.[85] Again, it matters. We have a modest, and maybe that's a kind way of saying it, alternative energy portfolio standard. Tier one: eight percent by 2021. Tier two, which is a whole host of things including waste coal: ten percent by 2021.[86] But that's consumption, that's not generation.

So first and foremost—these issues I did not rank and sort in any order, there's no rationale for why I thought of these things the way I did—I'm thinking about natural gas, and I'm also thinking about my background. In some ways, I'm an accidental commissioner. I was working in upstream oil and gas. I was the corporate director for energy and environmental policy at arguably the largest independent in the Appalachian basin. My task was to think about what risks are, cradle to grave. Everything from wellheads to ground water risk, to volatile organic compound (VOC) emissions from condensate tanks, to the displacement of coal, to the 2030, 2040, 2050 horizon for greenhouse gas emissions

[82] As of 2016, Pennsylvania was fourth in the nation in CO_2 emissions. *See State Profile and Energy Estimates: Pennsylvania Rankings: Total Carbon Dioxide Emissions 2016,* U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/rankings/?sid=PA#/series/226 (last visited Nov. 16, 2019).

[83] *See Pennsylvania State Energy Profile,* U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/print.php?sid=PA (last visited Sept. 12, 2019).

[84] *See Alternative Energy*, PA. PUB. UTIL. COMM'N, http://www.puc.pa.gov/consumer_info/electricity/alternative_energy.aspx (last visited Sept. 20, 2019).

[85] *See Pennsylvania Electricity Profile 2017*, U.S. ENERGY INFO. ADMIN. (last updated Jan. 8, 2019), https://www.eia.gov/electricity/state/pennsylvania/index.php. Based on the energy generation statistics for all PJM states collected by the Energy Information Administration, Pennsylvania produces sixteen percent of all total energy produced by PJM states. However, some states are only partially in the PJM grip, and so Pennsylvania's actual share of all PJM production is slightly larger. *See id.*

[86] PA. PUB. UTIL. COMM'N, ALTERNATIVE ENERGY AND ECONOMIC DEVELOPMENT IN PENNSYLVANIA (2017), https://www.puc.state.pa.us/general/consumer_ed/pdf/AEPS_Fact_Sheet.pdf.

from what we were producing, and how does that affect the market demand for gas and other energy sources? I got a cold call from a 717-area code in Harrisburg and was asked if I would come and serve on the Commission. I could have barely found Harrisburg on the map. But, as a friend of mine in graduate school said, I may not be particularly smart, but I'm smart enough to know I shouldn't say no. But that said, you know, when you think about it, as I stated in the Pennsylvania by the numbers, it's just an extraordinarily important time, a relevant and intellectually fascinating moment to be in Pennsylvania and in this space, with all the issues we have to bring forth and consider. It's not binary. It's not tertiary. It's almost a boundless space, thinking about all the facets and the Public Utility Commission (PUC) is a phenomenally fascinating place in which to engage in this space. I'll speak to them in all the seven issues I have before us today.

We do not currently have siting authority for pipelines.[87] That's a concern of mine. There is legislation to have some sort of siting authority, whether that exists within the PUC or some other created entity.[88] I think it makes rational sense to do so—we have it for high voltage transmission lines.[89] That goes back to the dawn of regulatory time. There were aesthetic reasons, perhaps even safety reasons that siting was thought to be important to have regulatory oversight. When we think about high voltage lines, to me, I cannot avoid that there's a direct parallel to what we're doing in natural gas and natural gas liquids. What siting authority would bring is an adversarial process. So, all parties can come in and provide public comment. You can think about all the impacts instead of what we do currently. If an entity has a certificate to build a pipe, we just look at: Does it make economic rational sense? Is there a demand for the product they're going to move? And that's the end of the story. That's not going to be sufficient when you're dealing with and thinking about townships, the impacts on communities, concerns

[87] *See* Reid Fraizer, *In Pennsylvania, No Oversight of Where Some Pipelines Can Be Built*, NPR: STATE IMPACT PA. (Sept. 25, 2018), https://stateimpact.npr.org/pennsylvania/2018/09/25/in-pennsylvania-no-oversight-of-where-some-pipelines-can-be-built/.

[88] *See, e.g.*, S.B. 928, 2017 Gen. Assemb. (Pa. 2017). https://www.legis.state.pa.us/cfdocs/billInfo/billInfo.cfm?sYear=2017&sInd=0&body=S&type=B&bn=0928.

[89] *See* 52 PA. CODE § 57.71 (1973), https://www.pacode.com/secure/data/052/chapter57/chap57toc.html.

about safety. An adversarial process can bring before us multiple alternatives and we can balance all those end dimensions, the environmental impact, the health and safety impacts, the impacts on a township's 2030, 2040 build out plan. So, all of that, the adversarial process, can bring a lot of rationality to it that we don't currently have.

A sort of tertiary issue as well: we recently had an explosion in western Pennsylvania. That's an active case before us, and it's still uncertain what caused that, but if I can be blunt, I don't think the Commission has enough safety oversight. We have safety authority, but it begins when you energize the pipe.[90] And it makes much more rational sense to be in there when the pipe is being designed and built. What are the geophysics, and what's the geological characteristics of where you're putting that pipe through, should you consider an alternative? All of that is behind the curtain to us and we're coming in at the eleventh hour when much of this work has already been done. We also don't have, arguably, the staff to do the amount of oversight that I argue is required.

Again, in the natural gas space, methane loss matters. We have a very forward-leaning Distribution System Improvement Charge, which allows immediate cost recovery for utilities,[91] which has brought down the length of time it takes for utilities to get all that legacy leaky pipe out of the ground from virtually infinite or 100-year time horizons down to under twenty years, and ten and fifteen years. That really matters for public safety, but also for leakage. I mean, those are leaky pipes. They're expensive to get out of the ground. For some, it can be a million dollars a mile. But getting that out matters from a climate perspective. We also have a forward-leaning program to ensure that we reduce leakage from our distribution pipes in the aggregate. Again, a source of significant methane emissions. Starting in 2013, Pennsylvania distribution companies not only had to have metrics for what their leakage rate was, but also bring it down from a maximum of five percent, on a glide path to three percent next year.[92]

That has been extraordinarily helpful for us, not only knowing where those leaks are, but to have a risk-based analysis on how

[90] *See Pipeline Safety*, PA. PUB. UTIL. COMM'N, http://www.puc.state.pa.us/consumer_info/transportation/pipeline_safety_.aspx (last visited Sept. 20, 2019).

[91] *See* 66 PA. CONS. STAT. § 1353 (2012).

[92] *See* 52 PA. CODE § 59.111(c)(1)–(2) (2019).

you're getting that pipe out, when you're getting that back out, what's the most at-risk pipe. That has brought significant improvements on the leakage rate.[93] The next effort on that, currently ongoing, is to take that same approach and apply it to gathering lines, which are also a significant leakage source.

I would be patently neglectful if I didn't talk about low-income customers. Pennsylvania is twenty-third in the nation for poverty, so we have a significant issue.[94] We have 1.6 million residents living below the federal poverty line.[95] I think it's something like 1.3 million households, are living below one-and-a-half times the federal poverty line.[96] So this matters. And all these conversations about cost always have this knock-on impact—what is it going to do to vulnerable customers? I authored a motion last year launching an energy burden analysis to say what is affordable.[97] For example, if you're between zero and fifty percent of the federal poverty line, what percentage of your income can you contribute to your monthly energy bills and keep your head above water? That analysis has been completed and serves as the foundational piece to rebuild the low-income support expectations that were last addressed in 1992.[98] Historically, that was a policy statement and was neglected more than it was followed. My expectation is to codify affordability as rule.

We're also, as New Jersey is, looking at community solar and using that to help offset low income energy burdens—do a tranche of a community solar portfolio standard as a commitment for low-income customers. Similarly, Pennsylvania has an energy

[93] *See* Press Release, Pa. Dep't of Envtl. Prot., 2015 Air Emissions Inventory for Unconventional Natural Gas Operations Released (Aug. 31, 2017), https://www.ahs.dep.pa.gov/NewsRoomPublic/articleviewer.aspx?id=21283&typeid=l.

[94] *See Pennsylvania 2018*, TALK POVERTY, https://talkpoverty.org/state-year-report/pennsylvania-2018-report/ (last visited Dec. 23, 2019).

[95] *See id.*

[96] The Pennsylvania Utility Commission's staff calculated this number internally using data from the U.S. Census Bureau.

[97] *See* Pa. Util. Comm'n, Opinion and Order on Energy Affordability for Low Income Customers, Docket No. M-2017-2587711 (2017), http://www.puc.pa.gov/about_puc/consolidated_case_view.aspx?Docket=M-2017-2587711.

[98] *See* PA. UTIL. COMM'N, HOME ENERGY AFFORDABILITY FOR LOW-INCOME CUSTOMERS IN PENNSYLVANIA 5–6 (2019), http://www.puc.pa.gov/pcdocs/1602386.pdf.

efficiency standard.[99] There is hope in the next administration to make that more robust for low income customers who are, of course, not only least able to manage energy bills, but also least able to afford all the things that those of us in the middle class, etc., can do to mitigate those costs.

A minor issue, but one that matters and speaks to the issue of cost: we are not as a Commission careful enough in our empiricism and our transparency on return-on-equity calculations. We do quarterly return-on-equity measures, but they become precedential for general rate case settlements. Pennsylvania is demonstrably high. I'm always a minority of one on the Commission on this issue, so I don't have any expectation in my time, my tenure. But we're a regulatory-friendly environment, yet we're paying above market rates on ROEs,[100] and that, speaking back to my previous issue on low-income customers, feeds back to the challenges we have. Even though as I noted, we are producing a lot of energy, utility bills are higher than many of our neighbors.[101] This is one of the driving reasons.

Transmission projects have also been on our list. Historically, we do Letters of Notification, and none of those were ever rejected. We're seeing far too many transmission projects being built that may not be necessary and that end up being rate-based and, again, included in the cost of energy. We clearly are making strides to be more careful and judicious and empirical and rational in what gets built. As Alfred Kahn said—he was a professor of mine at Cornell, back in the day, and I really regret that I was a freshman econ major and just thought, hey, just take this class, and now I realize I should've paid more attention—if the regulator permitted, a utility would rate base a pyramid. So not to take a shot at our utilities, but we do it. But that's a shortcoming of our oversight role.

Finally, the big issue. The question about accommodating state policies and climate. It's been mentioned by the panelists before me, thinking about how we manage this barrage, this incoming tide of

[99] *See Act 129 Information*, PA. PUB. UTIL. COMM'N, http://www.puc.state.pa.us/filing_resources/issues_laws_regulations/act_129_information.aspx (last visited Sept. 20, 2019).

[100] *See* Coley Girouard, *How Do Electric Utilities Make Money?*, ADVANCED ENERGY PERSPECTIVES (Apr. 23, 2015, 10:55 AM), https://blog.aee.net/how-do-electric-utilities-make-money.

[101] *See* ENERGY INFO. ADMIN., 2017 AVERAGE MONTHLY BILL-RESIDENTIAL (2018), https://www.eia.gov/electricity/sales_revenue_price/pdf/table5_a.pdf.

state policies in energy and capacity markets and all the rubrics, all the complexities, the Fixed Resource Requirement, and so on. It matters. I'll argue tooth-and-nail in Pennsylvania for a market price on carbon, for all the reasons we know, the elegance of it, the drive for innovation.

I'm no fan of Zero-emission Credits[102]—they're blunt instruments. And thinking again about the impacts, and what our obligations are to manage and moderate the price of energy, and the economic development necessity to do so, it's tough for me to think that any alternative other than a market solution is particularly rational. Although they may be politically expedient and necessary.

We have an election coming up. Might Pennsylvania participate in the Regional Greenhouse Gas Initiative (RGGI)? Pennsylvania's entry would double the generation capacity of RGGI.[103] It'd be a big deal. There's strong modeling arguing that Pennsylvania's participation would inflate the allowance price up from say four or five dollars to seven or eight dollars.[104] On the other hand, if we had a carbon market, and even if that price was $12.50 or $13 per ton of carbon emitted—that would likely be sufficient to preserve the state's nuclear fleet, which a six or eight dollar RGGI price would likely not.[105] To me that's a challenge, a conundrum, because there is substantive value in retaining Pennsylvania's nuclear fleet. Not all of it, as perhaps Three Mile Island is always going to be challenged. But from a cost of mitigating climate emissions perspective, keeping that nuclear generation matters. It's operating today and would, quite possibly, take an inordinate length of time to replace. I just caution that, it's not a reason to choose a RGGI versus a price on carbon approach. But price is in my mind—what price would retain Pennsylvania's nuclear generation?

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[102] *See* NUCLEAR ENERGY INST., ZERO-EMISSION CREDITS 3 (2018) ("Zero-emission credits are payments that electricity generators receive to compensate them for the value attribute of not emitting greenhouse gases in the production of electricity.").

[103] *See* U.S. ENERGY INFO. ADMIN., *supra* note 85 (calculating using the 2017 numbers produced by the U.S. Energy Information Administration for Pennsylvania and the current RGGI states, Pennsylvania's entry into the RGGI would increase the group's total energy production by approximately seventy percent).

[104] *See* Nat. Res. Def. Council, Presentation, Modeling Pennsylvania's Power Future: Carbon & Clean Energy Policy Scenarios (Sept. 20, 2018).

[105] *See id.*

And speaking of Pennsylvania, flipping back to my earlier point about Pennsylvania being a challenging place to be, I'm going to be frank: the costs of climate aren't particularly borne by Pennsylvanians. Yes, we have not insignificant exposure to the impacts of more intense storms, polar vortices, etc. We also have more miles of stream than any other of the lower forty-eight states, with associated increased flooding risks.[106] So there are clear impacts, but we are not the ones most hurt by climate change. But that is not a reason not to act; that's a fundamentally lousy reason not to act. I live on a farm at the foothills of the Appalachians. I raise sheep and cattle, and I am a steward of my stream. I have a fifty-five-acre riparian buffer with 5,500 trees I planted on it. I was thinking yesterday—it was pouring down rain and the water leaving my farm was crystalline. My neighbor is receiving water that is in exceptional condition when it leaves my farm. I don't do that because it's a regulatory necessity. It doesn't begin with someone giving me an edict to do something. It begins with my moral obligation, my ethical obligation to be a steward of that resource. And that goes no differently for Pennsylvania, even though, like I started this conversation, we've got a whole host of challenges that make this a very difficult environment in which to do something.

[106] *See* Rob Shane, *86,000 Miles of Streams: Protecting Pennsylvania's Trout*, COAL. FOR DEL. RIVER WATERSHED (Nov. 27, 2017), http://www.delriverwatershed.org/news/2017/11/27/protecting-pennsylvanias-trout.

SYMPOSIUM PANEL

ECONOMICS & ENVIRONMENTAL POLICY

MICHAEL A. LIVERMORE, MEGAN CERONSKY, RICHARD MORGENSTERN & VICKIE PATTON

INTRODUCTION: THREATS TO THE ROLE OF ECONOMICS IN ENVIRONMENTAL POLICYMAKING, BY MICHAEL A. LIVERMORE[*]

From its very beginnings, the modern era of environmental law and policy has been bound up with the field of economics. Part of the reason for this longstanding relationship is that economics provides a useful perspective on a set of questions that arise in almost any environmental policy-making context, such as the appropriate level of stringency or the tools that ought to be used to achieve environmental goals.[1] Certainly, economics is not the only framework for asking and answering those questions, but its utility to decisionmakers is well demonstrated by its durability: from Nixon through Obama, environmental decisionmakers—and especially officials at EPA—have consistently looked to the field of economics for guidance when designing, evaluating, and implementing environmental policy.

* Professor of Law, University of Virginia School of Law.

[1] *See* MICHAEL A. LIVERMORE & RICHARD L. REVESZ, *Environmental Law and Economics*, *in* 2 OXFORD HANDBOOK OF LAW AND ECONOMICS: PRIVATE AND COMMERCIAL LAW 509, 510 (Francesco Parisi ed., 2017).

Today, the beneficial relationship between economics and environmental decisionmaking at EPA is under attack. The Trump administration has never officially abandoned economic analysis and even purports to operate under longstanding executive orders that require cost-benefit analysis of major regulatory decisions.[2] Perhaps worse than an explicit disavowal, however, has been this administration's tendency to use economics to provide thinly veiled post-hoc rationalizations for politically motivated decisions, rather than a tool to provide guidance and insight. This approach threatens the legitimacy of the entire enterprise of economic analysis of environmental policy. And it may do lasting damage to the capacity of EPA and other environmental decisionmakers to productively use economics to inform their decisions.

As part of Policy Integrity's tenth anniversary conference, "Energy and Environmental Policy: The Quest for Rationality," I moderated a panel with four experts on the intersection of economics and environmental policy: Megan Ceronsky, Executive Director, Center for Applied Environmental Law and Policy and former Special Assistant and Associate Counsel to President Obama; Richard Morgenstern, Senior Fellow, Resources for the Future and former Senior Economic Counselor to the Undersecretary for Global Affairs, U.S. Department of State; Vickie Patton, General Counsel, Environmental Defense Fund; and Jonathan Pershing, Program Director for Environment, William and Flora Hewlett Foundation and former Special Envoy for Climate Change, U.S. Department of State. In the transcribed, edited remarks that follow, Ceronsky, Morgenstern, and Patton provide insights about the past and future role of cost-benefit analysis and economics in the design and evaluation of environmental policy. In this introduction, I provide a very brief discussion of the value of the economic perspective for environmental decisionmaking and describe how the current administration's abuse of economic analysis threatens to undermine its legitimacy.

A. *Economics and Environmental Decisionmaking*

The major pollution control statutes adopted during the height of U.S. environmental lawmaking in the last decades of the twentieth century represented the culmination of a political and legislative process, but also the beginning of a decades-long stage

[2] *See generally* Exec. Order 13,771, 82 Fed. Reg. 9339 (Feb. 2, 2017).

of regulatory implementation. The Clean Air Act and Clean Water Act establish the broad shape of pollution-control regimes but then ultimately leave it to EPA to fill in the details. In essence, the statutes create the legal and institutional foundation, but it has been EPA, working over many years, that has built complex and interdependent structures that make up contemporary environmental law.

In undertaking this task, EPA has had to answer many questions that the statutes leave open. A statute might require the agency to consider certain factors when setting a regulatory standard, but leave great discretion to the agency concerning how to consider and balance competing considerations against each other. Statutes often also leave open many questions of regulatory design, such as the degree of flexibility to give regulated entities when complying with environmental requirements.[3]

Since its earliest days, EPA has turned to the field of economics to help it answer these difficult questions.[4] Of course, economists are not the only professionals with input into the regulatory process; engineers, public health researchers, toxicologists, and lawyers all have their say. But economics has a special place in regulatory decisionmaking in part because it provides a framework—cost-benefit analysis—for collecting and aggregating information from many sources.

There are three main areas where economics has been particularly influential in environmental decisionmaking. The first has been in providing a basic rationale for environmental regulation through the concept of market failure. The basic insight is that individuals operating in private markets will often engage in behavior that is privately rational but that delivers socially irrational results.[5] One classic way to formulate this problem is one of

[3] *See* MATTHEW C. STEPHENSON, *Statutory Interpretation by Agencies*, *in* RESEARCH HANDBOOK ON PUBLIC CHOICE AND PUBLIC LAW 285, 286–92 (Daniel A. Farber & Anne Joseph O'Connell eds., 2010) (explaining why Congress might choose to leave open how the agency will implement a statute).

[4] *See* EPA, EPA'S USE OF BENEFIT-COST 1981–1986, at S-2 (1987) ("Beginning with the 'Quality of Life' reviews under the Nixon Administration, the requirements for review by OMB have evolved from a relatively simple analysis of costs to the comprehensive benefit-cost analyses required for the current Regulatory Impact Analyses.").

[5] *See* Richard B. Stewart, *Models for Environmental Regulation: Central Planning Versus Market-Based Approaches*, 19 B.C. ENVTL. AFF. L. REV. 547, 548 (1992) ("Because the polluter is not confronted with the need to pay for this

externalities, where private parties fail to account for the consequences of their decisions on third parties. Unless some institution—such as the tort system or an environmental rule—can "internalize" these effects, externalities result in inefficiency and waste.[6]

The second important insight builds from the concept of market failure to derive a normative standard for the optimal stringency of a potential environmental regulation. The level of environmental quality to be pursued is the one that would exist in the absence of a market failure. Under this approach, the appropriate level of regulation is not one that maximally limits environmental risk, but instead one that balances the environmental harms from an activity against the benefits of that activity and the costs of control.[7]

The final insight again builds from the concept of market failure and urges regulators to use tools that most directly address the failure in question, typically through the use of a market-based mechanism such as a pollution fee or a cap-and-trade system.[8] The basic idea is that the government can use policy to ensure that private actors face the correct price for their decisions, which includes the costs that are borne by third parties. Once prices accurately reflect the wide range of consequences from people's decisions, private actors seeking to maximize their individual well-being will also make decisions that are socially desirable. [9]

These general insights into environmental policy can be applied to a range of specific regulatory contexts. For example,

degradation, he or she produces more degradation than society as a whole desires.").

[6] *See id.* at 548 (explaining that environmental degradation is a type of externality that can be addressed through government regulation).

[7] *See* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH 12 (2008).

[8] *See generally* Robert B. McKinstry Jr., *Putting the Market to Work for Conservation: The Evolving Use of Market-Based Mechanisms to Achieve Environmental Improvement in and Across Multiple Media*, 14 PA. ST. ENVTL. L. REV. 151 (2006) (describing a variety of market-based tools for reducing environmental harm).

[9] *See* Nathaniel O. Keohane, Richard L. Revesz & Robert N. Stavins, *The Choice of Regulatory Instruments in Environmental Policy*, 22 HARV. ENVTL. L. REV. 313, 314 (1998) ("At least in theory, market-based instruments minimize the aggregate cost of achieving a given level of environmental protection, and provide dynamic incentives for the adoption and diffusion of cheaper and better control technologies.").

climate change can be understood as one massive global market failure; the problem is that private actors who emit greenhouse gases do not face the social costs of those emissions, which are borne by people around the world and in future generations.[10] The socially desirable amount of greenhouse gas emissions is not zero, but rather the amount that would occur were private actors to face the social costs of emissions. And the best tool to reach the socially desirable level of emissions would be carbon pricing, either in the form of a carbon tax or a cap-and-trade system.[11] Similar logic can be applied to many other environmental questions, from interstate air pollution to non-point-source water pollution.

Of course, the economic perspective is not the only way to approach environmental decisionmaking and other normative views that focus on rights, justice, harm, or intrinsic environmental value exist.[12] Indeed, neither EPA nor the relevant statutes endorse the economic perspective as providing the exclusive normative lens through which environmental policy should be understood. Nevertheless, many statutory provisions in the major environmental statutes do acknowledge the importance of evaluating rational tradeoffs when engaging in regulatory decisionmaking, and executive orders that have been in place since the Reagan administration also require that agencies balance the costs and benefits of regulation.[13] EPA itself has built out considerable capacity to engage in economic analysis of its decisions and, where it is given discretion by statutes, has often favored flexible regulatory approaches in line with the insights derived from the economic perspective.

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[10] *See* Clara Changxin Fang, *Carbon Pricing: Correcting Climate Change's Market Failure*, 11 SUSTAINABILITY 162 (2018) ("The heart of the climate change problem is market failure: a consequence of the price of goods not reflecting their true cost to society.").

[11] *See id*. ("A proven method to correct this market failure is putting a price on carbon emissions. . . . The added price makes carbon-intensive goods and activities more expensive, while carbon-efficient goods and activities become more competitive.").

[12] *See, e.g.*, PAUL W. TAYLOR, RESPECT FOR NATURE: A THEORY OF ENVIRONMENTAL ETHICS 13 (25th anniversary ed. 2011) (advancing a "life-centered" theory of environmental ethics); *see also* MARK SAGOFF, THE ECONOMY OF THE EARTH: PHILOSOPHY, LAW, AND THE ENVIRONMENT 2 (2d ed. 2008) (contrasting an economic approach that finds instrumental value in nature with an ethical approach that finds nature intrinsically valuable).

[13] *See* Exec. Order No. 12,291, 3 C.F.R. 127 (1982); Exec. Order No. 12,866, 3 C.F.R. 638 (1994).

B. *Opposition and Reconciliation*

The longstanding relationship between economics and environmental decisionmaking is not without detractors. In the first decades after the major environmental laws were adopted, the role of implementation often fell to Republican administrations during a period of divided government that saw Republicans in charge of the White House for all but four years in the period from 1968 to 1992. During this time, the language of economics was sometimes deployed as a shield against environmentalists and those in Congress who argued in favor of more stringent environmental protection.[14] This was especially the case during the Reagan administration, with its use of cost-benefit analysis and regulatory review by the White House's Office of Information and Regulatory Affairs (OIRA) to purse an anti-regulatory agenda.[15] In part because of these experiences, many environmentalists gained a deep suspicion about the value of economics for environmental policy making.

In our 2008 book, *Retaking Rationality: How Cost-Benefit Analysis Can Better Protect the Environment and Our Health*, Richard L. Revesz and I document how the failure of environmental groups to participate in debates over how best to conduct cost-benefit analysis had allowed this tool to become dominated by anti-regulatory interests.[16] Shortly after *Retaking Rationality* was published, we founded the Institute for Policy Integrity at New York University School of Law in part to work with environmental groups to show that, when done correctly, economic analysis often reveals that strong environmental protections are justified.

When we founded Policy Integrity, Revesz and I could not have known the degree to which the Obama administration would place economics at the heart of its environmental regulatory agenda, ultimately moving forward with a set of policies that, more than any prior administration, demonstrated the true potential of economics to lead to strong, wise environmental policies. In rules to require better fuel economy from automobiles, cut interstate air pollution, clean up the nation's waters, and reduce greenhouse gas emissions from power plants, the Obama administration showed how environmental protection can deliver massive net benefits for the

14 *See* Revesz & Livermore, *supra* note 7, at 24–27.
15 *See id.*
16 *See id.* at 9.

American people.[17] Often, the Obama-era EPA reached for the most flexible methods allowable under the relevant statutes, for example in its Good Neighbor Rule on interstate air pollution,[18] which creates as expansive a trading system as possible, given constraints imposed by prior court decisions.[19] The Obama administration also engaged in important efforts to improve cost-benefit analysis methodology, most significantly through an interagency taskforce that convened a group of experts across the government to generate a social cost of carbon value to be used when evaluating the benefits of rules that reduce greenhouse gas emissions.[20]

The years of the Obama administration marked a major turning point in the attitude of many environmentalists to economics. Seeing how cost-benefit analysis could justify strong environmental protection and market-based mechanisms could achieve impressive environmental results, many groups have come to recognize the value of economics for environmental decisionmaking.[21] Rather than reflexively opposing the use of cost-benefit analysis, many major environmental groups began to take an active role in helping to shape the methodology, creating a more diverse set of voices on

[17] *See* ISAAC SHAPIRO, ECON. POLICY INST., THE COMBINED EFFECT OF THE OBAMA EPA RULES 1–5 (2011), https://www.epi.org/files/2011/BriefingPaper327.pdf (finding the combined net benefits of EPA rules finalized under Obama range from $10 billion to $95 billion a year).

[18] *See* Federal Implementation Plans: Interstate Transport of Fine Particulate Matter and Ozone and Correction of SIP Approvals, 76 Fed. Reg. 48,208, 48,272 (Aug. 8, 2011) (to be codified at 40 C.F.R. pts. 51, 52, 72, 78, and 97) ("[T]his approach provides the most flexibility for sources while meeting the Clean Air Act requirements and protecting public health. As a result, potential innovations and resulting cost savings are more likely to be found and implemented.").

[19] *See generally* Bryan Dooley, Comment, EME Homer City Generation v. EPA*: The Search for Meaningful Regulation of Interstate Pollution Under the Clean Air Act*, 14 MINN. J.L. SCI. & TECH. 893 (2013) (discussing the challenging legal precedents limiting EPA's regulation of interstate air pollution).

[20] *See* John H. Cushman Jr., *Government Auditors Say 'Social Cost of Carbon' Is by the Book*, INSIDECLIMATE NEWS (Aug. 26, 2014), https://insideclimatenews.org/news/20140826/government-auditors-say-social-cost-carbon-book (finding the interagency taskforce work "obsessively" adhered to "the rules of the regulatory road, consulting outside experts to double-check its work").

[21] *See* Michael A. Livermore, *Can Cost-Benefit Analysis of Environmental Policy Go Global?*, 19 N.Y.U. ENVTL L. J. 146, 153 (2011) ("[W]ith the embrace by the Obama Administration of cost-benefit analysis—coupled with that Administration's aggressive regulatory moves in several areas—the link between cost-benefit analysis and an antiregulatory agenda may be weakening.").

methodological questions that had previously been dominated by anti-regulatory interests.

C. *Developments Under Trump*

If the Obama administration helped demonstrate how an environmental agenda informed by faithful application of the economic perspective might look, the Trump administration has provided a clear object lesson in the terrible environmental consequences that can arise when the insights of economics are flagrantly ignored. On a wide range of regulatory matters, the Trump administration has attempted to reverse Obama-era rules that were very strongly justified on cost-benefit grounds.[22] In these efforts, the Trump EPA has purported to engage in economic analysis. But those analyses have been so transparently flawed that they can be interpreted as an implicit repudiation of EPA's longstanding view that economic analysis has something valuable to offer environmental decisionmaking.[23]

There are many egregious examples, which have been deconstructed by the dedicated staff at Policy Integrity in numerous public comment submissions and legal briefs. One key example helps illustrate the point. In one of its most consequential environmental rulemakings, the Obama administration adopted standards for hazardous air pollutants (HAPs) from electricity generating units.[24] As part of the rulemaking process, the Obama EPA conducted a cost-benefit analysis of the proposed rule, finding that the benefits of the rule—mostly in the form of reduced mortality risks—massively outweighed its costs.[25] This analysis was based on

[22] *See* Juliet Eilperin & Darla Cameron, *How Trump is Rolling Back Obama's Legacy*, WASH. POST. (Jan. 20, 2018), https://www.washingtonpost.com/graphics/politics/trump-rolling-back-obama-rules/?utm_term=.2b95194fa444 (detailing the Trump administration's reversal of Obama administration regulations).

[23] *See* Dan Farber, *How Trump Officials Abuse Cost-Benefit Analysis to Attack Regulations*, WASH. MONTHLY (Jan. 9, 2019), https://washingtonmonthly.com/2019/01/09/how-the-trump-administration-abuses-cost-benefit-analysis-to-attack-regulations/ ("Call it cost-cost analysis: to justify getting rid of regulations they dislike, Republicans have decided to systematically ignore their benefits.").

[24] *See* National Emission Standards for Hazardous Air Pollutants from Coal- and Oil-Fired Electric Utility Steam Generating Units, 77 Fed. Reg. 9304 (Feb. 16, 2012) (to be codified at 40 C.F.R. pts. 60 and 63).

[25] *See id.* at 9306 ("The benefits of this rule outweigh costs by between 3 to 1 or 9 to 1 depending on the benefit estimate and discount rate used. The co-benefits

methodologies that are outlined in the relevant guidance by OIRA, and EPA's approach was consistent with longstanding agency practice.[26]

Upon taking over at EPA, Trump administration political appointees began moving forward with efforts to undermine the HAP rulemaking, and have recently published a rescission of the Obama EPA's finding that it was "appropriate and necessary" to regulate HAP emissions from power plants.[27] To support its decision, the Trump EPA revisited the Obama EPA's economic analysis.[28] Facing a rule that was overwhelmingly justified from a cost-benefit perspective, the Trump EPA decided to simply ignore the largest category of quantified benefits, which were associated with reductions in premature mortality from a decline in particulate matter emissions that resulted from the application of the HAP-reducing technology.[29]

The decision to ignore these "co-benefits" has no foundation whatsoever in economic logic, and so the administration put forward a variety of legal make-weight arguments to suggest that it is

are substantially attributable to the 4,200 to 11,000 fewer PM2.5-related premature mortalities estimated to occur as a result of this rule.").

[26] *See generally* Kimberly Castle & Richard Revesz, *Environmental Standards, Thresholds, and the Next Battleground of Climate Change Regulations*, 103 MINN. L. REV. 1349, 1432 (2019).

[27] *See* National Emission Standards for Hazardous Air Pollutants: Coal- and Oil-Fired Electric Utility Steam Generating Units—Reconsideration of Supplemental Finding, 84 Fed. Reg. 6739 (Feb. 28, 2019) (to be codified at 40 C.F.R. pt. 63); *see also* Stuart Parker, *MATS Proposal Spurs Legal Debate On Co-Benefits, Air Toxics Rule's Fate*, INSIDE EPA (Mar. 22, 2019), https://insideepa.com/daily-news/mats-proposal-spurs-legal-debate-co-benefits-air-toxics-rule%E2%80%99s-fate ("EPA's proposal to scrap the Obama-era finding that its power plant air toxics rule was 'appropriate and necessary' while leaving the overall rule in place is spurring debate over expected legal challenges to the plan.").

[28] Press Release, EPA, EPA Releases Proposal to Revise MATS Supplemental Cost Finding and "Risk and Technology Review" (Dec. 28, 2018), https://www.epa.gov/newsreleases/epa-releases-proposal-revise-mats-supplemental-cost-finding-and-risk-and-technology.

[29] *See* Brady Dennis & Juliet Eilperin, *EPA to Make it Harder to Tighten Mercury Rules in the Future*, WASH. POST (Dec. 28, 2019), https://www.washingtonpost.com/energy-environment/2018/12/28/epa-make-it-harder-tighten-mercury-rules-future/?utm_term=.556beb18ff69 ("[T]he change would prevent regulators from calculating positive health effects—known as 'co-benefits'—that come from reducing pollutants other than those being targeted. The shift could have implications for public health protections across the federal government, experts said.").

constrained from considering co-benefits. The problem with these arguments is that there is a long history of EPA considering co-benefits, and no court has ever found this to be problematic.[30] Indeed, where EPA and other agencies have failed to account for the indirect effects of their rules, courts have frequently found the resulting decisions to be legally inadequate.[31] Consideration of co-benefits is also explicitly encouraged in the relevant guidance by EPA and OIRA.[32]

EPA's misuse of cost-benefit analysis in this and other cases reanimates the specter of economic analysis as an anti-regulatory cudgel. By openly manipulating cost-benefit analysis in its HAP rule and elsewhere, the Trump administration expresses hostility toward the enterprise of rational, economically informed regulatory decisionmaking. Future administrations of both parties may be hard-pressed to justify relying on economic analyses that cut against the interests of powerful factions within their parties, given this administration's clear precedent of flouting of established methodologies. When business interests in a future Republican administration urge a deregulatory action that is not justified on cost-benefit grounds, they can easily point to the HAP rule and other instances where a friendly administration happily violated established approaches to reach the politically desired results. And in future Democratic administrations, constituents of that party may legitimately ask why it makes sense for only one of the two parties to limit its options when pursuing its political goals.

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[30] *See* Castle & Revesz, *supra* note 26, at 1361 ("Courts . . . have long held that when a rule's justification includes economic analyses, agencies may not ignore important costs or benefits, whether the effect is direct or ancillary.").

[31] *See* Competitive Enter. Inst. v. Nat'l Highway Traffic Safety Admin., 956 F.2d 321, 323 (D.C. Cir. 1992) (holding NHTSA failed to consider whether higher fuel economy standards would cause carmakers to produce smaller, less safe cars); *see also* Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1227 (9th Cir. 2008) (holding NHTSA failed to monetize the value of carbon emissions in setting fuel economy standards).

[32] *See* EPA, GUIDELINES FOR PREPARING ECONOMIC ANALYSES 11–2 (2010) ("An economic analysis of regulatory or policy options should present all identifiable costs and benefits that are incremental to the regulation or policy under consideration. These should include directly intended effects and associated costs, as well as ancillary (or co-) benefits and costs."); *see* OFFICE OF MGMT. & BUDGET, CIRCULAR A-4: REGULATORY ANALYSIS 26 (2003) ("Your analysis should look beyond the direct benefits and direct costs of your rulemaking and consider any important ancillary benefits and countervailing risks.").

Conclusion

The contemporary moment is a perilous one for the future of economics and environmental decisionmaking. Despite its long history and many substantial successes, there is no guarantee that economic analysis will always have a special place at EPA. This administration has aptly shown that there are at least some political actors who are more than willing to manipulate, and even jettison, economic analysis. There is still plenty of time for resistance, and if Congress, the courts, and the public at large reject this move, then it will stand as an object lesson to future administrations that might seek to replace economically informed decisionmaking with raw politics. But if the Trump administration finds that its misuse of economics is rewarded, then we can expect future administrations will be heavily tempted to follow suit.

At this fateful time, Policy Integrity convened a thoughtful panel of experts to share their thoughts on the dangers and opportunities of the current moment. Their remarks follow.

REMARKS OF MEGAN CERONSKY**

I am not an economist. I feel it's important to make that confession upfront with this audience. And even though I am not an economist, I am going to take the liberty of offering some thoughts on the very narrow topic of EPA, economics, and the environment. As a non-economist, I have to confess that I do not love economics as an art form or as an intellectual puzzle. I am interested in economics purely from the perspective of what economics can do to advance environmental protection, and what I deeply appreciate about the work of Policy Integrity is the rigor that they bring to this question and the unflagging devotion and tireless pursuit of the additional question of how can these tools be applied in a way that makes everyone better off. So, thank you all for that work.

This is a strange time in which we live. And one way to appreciate its strangeness—if you needed another one—is to actually think about this topic of EPA, economics, and environmental protection. If we go back in time ten years, that will bring us to the massive effort to pass the Waxman-Markey climate

** Executive Director, Center for Applied Environmental Law and Policy; former Special Assistant and Associate Counsel to President Obama

legislation. And in that effort to pass the Waxman-Markey climate change legislation, the Clean Air Act played the role of boogeyman.

So just to refresh your memory, a Boogeyman is a mythical evil creature that is used to scare children into behaving better. So, we said to Congress: if you do not pass this legislation, the Clean Air Act is coming—and you heard these terrified squeals around the campfires. Children were very afraid of what would happen. Waxman-Markey would offer this economically efficient, economy-wide approach. It will be market-based. We'll put a cap on emissions, there will be trading, we will get the most cost-effective emission reductions. We'll have an offsets program to get even more cost-effective emission reductions. If you do not pass this, the Clean Air Act will come and it will rain down horrible, inefficient command and control regulations upon all of you.

We did not pass the Waxman-Markey legislation. We could not convince enough conservative members of either party that they wanted to use these economically efficient market-based tools to address the major environmental issue of our time. We then spent the next six years unmasking the Boogeyman—who was, as it turns out, reasonably cute and cuddly, or at least very keen on efficient, market-based approaches to address greenhouse gas emissions.

The two major climate pollution standards put in place under the Obama administration addressed the two major sectors in terms of emissions: transportation and the power sector. You had the Clean Car Standards and the Clean Power Plan, and EPA applied all of its ingenuity to this question of how can we design these frameworks to actually employ efficient, market-based frameworks to get the emission reductions we need in a way that is as cost-effective as possible? The Clean Car Standards, reducing greenhouse gas emissions from vehicles—this was designed as a trading program. Effectively the standards involve compliance averaging and trading credits for things that cannot be measured at the tailpipe but that reduce greenhouse gas emissions. The Clean Power Plan, aimed at reducing greenhouse gas emissions from power plants, was based on flexible emission reduction strategies and implemented in the context of trading programs at the state level (if the state so chose), either rate-based trading programs or, to come full circle, a cap-and-trade program at the state level.

So, if we move forward to today, today we are in the middle of two public comment periods. This administration has put forward a proposal to roll back the Clean Car Standards for model years 2020

onwards. The auto industry has not publicly sought this rollback. They instead have talked about how they want more market-based flexibility—what they would like is more credits for the things that you can do to reduce emissions that they argue are not currently reflected in the program. For example, the auto manufacturers might say something about how we could put on this technology that is going to reduce traffic accidents, and when we reduce traffic accidents, we reduce traffic jams, and when we reduce traffic jams, then we reduce emissions—and so we want credits for technologies like this.

The Trump administration has not only failed to propose additional flexibilities and market-based mechanisms under this program, they have actually proposed taking some of the core flexibilities out. Part of the Clean Car Standards is focused on reducing emissions of highly potent greenhouse gases from the air conditioning systems in cars either by trading the actual refrigerants that you use for ones that are less potent greenhouse gases or by reducing the leaks wholesale. That framework has been strongly supported by auto manufacturers because it allows them to find the most cost-effective ways to reduce greenhouse gas emissions from vehicles—everybody's goal. Perhaps even more remarkably, in addition to trying to pull that framework out of the program, the Trump administration has said these very disparaging things about having a flexible regulatory framework at all. So, that's what's happening in the context of the car standards.

The second regulatory proposal that stakeholders are now providing public comment on is the proposal to replace the Clean Power Plan. As most or all of you remember, in the Clean Power Plan the best system of emission reduction to reduce greenhouse gas emissions from existing power plants was determined to be a combination of improving the heat rates or the efficiency of coal-fired power plants in combination with shifting generation from higher emitting generation sources to lower emitting generation sources—because you do not care how your electricity was made as long as it is "in" the outlet when you need it. This basically entailed a shift from coal-fired power generation to gas-fired power generation and from coal- and gas-fired power generation to renewable generation. That is of course the framework that was actually being used by power companies and states on the ground to get reductions not just of greenhouse gas emissions, but also of other pollutants from the power sector. And then in that

context, EPA said to the states, here are the emission reductions we need you to get. You can do this using a rate-based trading program, or you can do this with a mass-based trading program, a cap-and-trade program. Now, EPA proposes to find that the best system of emission reduction—that's the statutory language—cannot involve an approach that is not based on a physical or operational change to the power plant itself, and has proposed to find that the best system of emission reduction under their new statutory interpretation is just the heat rate improvements at the coal fire power plants, if the state finds that any of those look appealing on any timeframe the state chooses to propose. So, let's leave aside the unlawful failure of this proposal to actually identify a best system of emission reduction or to meaningfully address the danger to human health and welfare that is posed by greenhouse gas emissions from existing power plants, as they are obligated by the Clean Air Act to do. Let us also leave aside the question of whether or not their new interpretation of the statute actually precludes a system like the Clean Power Plan or an analogous system. Let's focus on the fact that this administration is making the argument voluntarily that the Clean Air Act does not allow the use of economically efficient, market-based, flexible frameworks under the part of the Act that will likely provide the foundation for climate mitigation policies for many years into the future—until that wonderful time when Congress acts.

This is kind of remarkable. This administration will end soon, but the outcome of the coming litigation over this new proposed interpretation of the Clean Air Act could shape the nature of climate policy for many years into the future.

Now, I would like to make what I think is a fairly unremarkable argument—that this idea of how you can achieve emission reductions using averaging, using trading, using these flexible market-based approaches, is the greatest gift that economics has given to environmental protection. In doing so, you have a system that is flexible for the regulated sources. You ensure that you're getting the most cost-effective emission reductions, and because you can get emission reductions more cheaply, you can actually get more emission reductions and more environmental protection. And I'm deeply grateful that this innovation came before the onset of the initial serious attempts to mitigate climate change, a problem that is particularly well-suited to this approach because of the large number of sources of emissions, because of the need to provide certainty and

a market-based regulatory signal for the development of innovations in emission reductions, because of the scale of the emission reductions that need to be achieved, because of the deep interconnectivity between fossil fuels and the world economy. And because of the very important fact that unlike other pollution problems, every ton of greenhouse gas that is avoided has the same effect in terms of mitigation of climate change, no matter where you are reducing it (if we leave aside airplanes). So, my gratitude to the economists who came up with these ideas, and my gratitude to the conservative Republicans who put forward these ideas initially as policy frameworks. But remarkably, in this strange world that we live in, we have a Republican administration rolling back market-based, economically efficient environmental protections and replacing them with less flexible, command and control frameworks. And we have these two competing visions of what is possible under the Clean Air Act, and these visions are swiftly heading to court.

One vision is a return to command and control, and actually making the Clean Air Act the Boogeyman that we said it was back in the Waxman-Markey days. Under that vision, should it actually become ensconced in the law, which is not certain—these cases could decide that that's one possible approach, and it is okay for EPA to have done it this time, and EPA could take a different approach in the future—but if that approach actually becomes ensconced in the case law as the only possible way to do this, we are going to be left with a deeply non-ideal policy tool going forward. If we think about the best system of emission reduction for the power sector in the context of an administration that was actually interested in fulfilling both the law and its moral duty to address climate change, we would be looking at a highly constrained set of options. Let's take a coal plant. Let's co-fire with a bunch of natural gas. Let's co-fire with 100 percent natural gas. Let's put on carbon capture and sequestration. We can reduce emissions under that framework, but it is not nearly as flexible or cost-effective as the alternative. The alternative is the idea that under the Clean Air Act, the best system of emission reduction can actually mirror the way that the power sector operates in practice—the ramping up and down of different generation sources, the flexibility in terms of who is generating electricity at any one point in time, and optimizing that generation to reduce emissions.

That framework utilizes the policy tools that economics has given us to achieve emission reductions in a way that is cost-effective, flexible, and as efficient as possible. Now, thanks to the market forces that are accelerating the deployment of lower emitting generation in the power sector and to some really clutch tax credits (in retrospect), we are securing emission reductions in the power sector right now, regardless of what this administration does. But what we stand to lose is the potential to achieve the emission reductions that we are going to need going forward in a way that is flexible, efficient, and cost-effective. That would be a terrible loss, and the antithesis of all of the incredible work that the folks at Policy Integrity and others like them have been doing to try to develop environmental policy in a way that is as smart, thoughtful, cost-effective, and as environmentally effective as possible.

REMARKS OF RICHARD MORGENSTERN[***]

EPA's capacity to perform economic analyses of environmental policies and regulations has expanded dramatically over the years. At last count, the Agency employed almost fifty Ph.D. economists and hundreds more with Master's level training in the field.[33] In addition, EPA routinely draws on many hundreds more economists in academia, think tanks, and consulting firms. Unsurprisingly, the Agency's economics capacity has grown in parallel with the dramatic expansion of the academic field of environmental and natural resource economics, including the development of new analytic techniques and the availability of substantial new data on both the costs and benefits of environmental regulation.

It's widely believed that EPA's economics capabilities are rooted in the Reagan administration, particularly in the requirements under Executive Order (E.O.) 12,291 to prepare a Regulatory Impact Analysis (RIA) for major rules and to consider the results in decision making (consistent with statute).[34] While E.O. 12,291 clearly sowed a revolution in economic analysis at the Agency, serious history buffs will recognize that's not the full story. In the Agency's early years, there was extensive analysis of the economic

*** Senior Fellow, Resources for the Future.

33 *See* Interview with Al McGartland, Dir., EPA Nat'l Ctr. for Envtl. Econ. (Sept. 2018).

34 *See* Exec. Order No. 12,291, 3 C.F.R. § 127 (1982).

impacts and cost-effectiveness of new regulations.[35] Much of this work was driven by the Agency's Policy Office and reflected, in large part, Congressional concerns about local job losses and plant closings. Early economic incentive approaches, such as the "bubble policy" and "offset trading," were introduced during the Carter years. These measures allowed sources to trade pollution rights in pursuit of lower cost emissions reductions. In a parallel but separate path, the Agency's Office of Research and Development (ORD) was beginning research on benefits analysis, with an emphasis on stated preference measurement techniques.

Many remember the pockets of moral resistance to benefit cost analysis both inside the Agency and out, as well as the intense debates about the fate of E.O. 12,291 in the early Clinton years. Should the E.O. be replaced with a milder, gentler version that softened the role of economics? Should it be repealed altogether? In the end, E.O. 12,866, which recently passed its twenty-fifth anniversary, emerged as a relatively modest revision of its predecessor, with slightly greater emphasis on equity and transparency.[36]

Another widely held misconception about EPA's economic analyses is that they serve as a strong unifying force for the Agency's disparate programs in air, water, waste, pesticides, and toxics. While the Agency has issued detailed cross-program guidance on the conduct of RIAs consistent with consensus economic practices, and some early 'Cost of Clean' studies did attempt to create broad-scale estimates of the costs of environmental protection, the last of those comprehensive studies was completed more than thirty years ago.[37] In fact, there are and always have been major differences in both the conduct and use of economics across Agency programs. Although critics abound on all sides, the Air office is the acknowledged EPA leader in the use of economics, and

[35] *See* RESOURCES FOR THE FUTURE, ECONOMIC ANALYSES AT EPA: ASSESSING REGULATORY IMPACT ix (Richard D. Morgenstern, ed. 1997); *see also* Exec. Order No. 12291, 46 Fed. Reg. 13,193 (Feb. 17, 1981).

[36] *See* William F. West, *The Institutionalization of Regulatory Review: Organizational Stability and Responsive Competence at OIRA*, 35 PRESIDENTIAL STUD. Q. 76, 81 (2005) ("[A]lthough the Clinton order sought to address alleged problems in the review process, its departures from E.O. 12291 were relatively modest in the final analysis.").

[37] *See, e.g.*, EPA, ENVIRONMENTAL INVESTMENTS: THE COST OF A CLEAN ENVIRONMENT (1990), https://www.epa.gov/sites/production/files/2017-09/documents/ee-0294a-1_acc.pdf.

has developed the most sophisticated analyses since at least the 1980s when Agency and academic economists pioneered in the estimation of the particulate matter (PM)-induced damages to human health. Even as the research has been refined over the years, PM mortality remains the largest single benefit category by far in EPA's current RIAs.[38]

Beyond the requirements for economic studies, E.O. 12291 also established a formal review role for the Office of Management and Budget (OMB). This role was reaffirmed in the Clinton E.O., albeit with requirements for greater "sunlight" in the process. As my RFF colleague Art Fraas and I have shown in an analysis covering the period 1997–2012, under Republican Administrations, OMB has tended to focus more on uncounted costs at both the firm and societal level, while uncounted benefits of various types have often been given greater emphasis in Democratic years.[39]

The business community, especially some of the larger trade associations, has long taken an interest in RIAs, and often critiqued them as part of the formal notice-and-comment process. In some cases, they have even conducted independent economic studies of their own which they have entered into the record. In contrast, the environmental community has been somewhat late to the economics party. That began to change in a major way in the early 2000s.[40] Most major environmental groups now have economists on staff. Arguably, Michael Livermore and Richard Revesz's 2008 analysis and embrace of many aspects of benefit cost analysis played a valuable role in the evolution of thought about the role of economics

[38] *See, e.g.*, EPA, THE BENEFITS AND COSTS OF THE CLEAN AIR ACT FROM 1990 TO 2020 (2011), https://www.epa.gov/sites/production/files/2015-07/documents/fullreport_rev_a.pdf ("The estimated relationship between particulate matter exposure and premature mortality is one of the most important parameters in the overall quantified and monetized benefit estimate for this study."). The benefits from reducing lead in gasoline, drinking water and other sources is also a very large benefits category used by EPA in support of regulation. Extensive economic analysis on lead benefits was done by economists both inside and outside the Agency.

[39] *See* Art Fraas & Richard D. Morgenstern, *Identifying the Analytical Implications of Alternative Regulatory Philosophies*, 5 J. BENEFIT COST ANALYSIS 131, 141 (2014).

[40] The exception is the Environmental Defense Fund, which had at least one economist on staff as early as the 1980s. *See* Charles F. Wurster, *Cap and Trade: Economic Efficiency and Reduced Emissions*, ENVT'L DEF. FUND BLOG (Aug. 19, 2009), http://blogs.edf.org/climate411/2009/08/19/cap-and-trade-economic-efficiency-and-reduced-emissions/.

in environmental regulation.[41] As we muddle through the Trump deregulatory efforts, some of the economic analyses that were initially controversial in the environmental community are now critical to the defense of key rules, especially those related to air and climate issues.

Established practices for regulatory analysis are under attack in the Trump administration, as a broad array of changes are being proposed. Many of these changes are troubling to a card-carrying economist like me who supports the net-benefit framework. In one sense, it looks like we're returning to the 1970s because of the heavy focus on costs and limited attention to benefits. In the 1970s, the cost emphasis derived from our limited knowledge about regulatory outcomes. Now that we have a lot more information about such outcomes, including, in many cases, credible retrospective studies, it is wrong to ignore or downplay that information.

I will mention two particularly troubling actions currently underway: scaling back the role of ancillary or co-benefits[42] and the arbitrary revisions of the social cost of carbon (SCC).[43] Existing Agency and OMB guidance reflects the broad consensus within the economics community regarding the consideration of ancillary benefits within RIAs. Specifically, OMB guidance states that "[a]nalytic priority should be given to those ancillary benefits and countervailing risks that are important enough to potentially change the rank ordering of the main alternatives in the analysis. . . . Like other benefits and costs, an effort should be made to quantify and monetize ancillary benefits and countervailing risks."[44] While one can argue for rigorous assessment of more cost-effective means of achieving the ancillary benefits, it is troubling to see an Administration that claims to support economics to propose

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[41] *See generally* RICHARD L. REVESZ & MICHAEL A. LIVERMORE, RETAKING RATIONALITY: HOW COST-BENEFIT ANALYSIS CAN BETTER PROTECT THE ENVIRONMENT AND OUR HEALTH (2008).

[42] *See* Derrick Z. Jackson, *EPA's Plan to Ignore Co-Benefits Will Cost American Lives*, UNION OF CONCERNED SCIENTISTS BLOG (Apr. 30, 2019, 3:40 PM), https://blog.ucsusa.org/derrick-jackson/epas-plan-to-ignore-co-benefits-will-cost-american-lives.

[43] *See* Brad Plumer, *Trump Put a Low Cost on Carbon Emissions. Here's Why it Matters*, N.Y. TIMES (Aug. 23, 2018), https://www.nytimes.com/2018/08/23/climate/social-cost-carbon.html.

[44] *See* U.S. OFFICE OF MGMT. & BUDGET, CIRCULAR A-4, at 26 (Sept. 17, 2003), https://www.whitehouse.gov/sites/whitehouse.gov/files/omb/assets/regulatory_matters_pdf/a-4.pdf.

arbitrarily limiting the consideration of ancillary benefits, as they have done in recent regulatory actions.[45]

A similar story applies to the SCC. The Trump Administration has argued that Obama-era regulators erred by using too low a discount rate, thereby giving greater weight to future benefits, and by erroneously including non-U.S. benefits in the calculations.[46] Clearly, the rationale for including non-U.S. benefits is part of a global strategic view that has not been embraced by the Trump Administration. The revised 2020 values for the SCC of one to six dollars per ton, depending on the discount rate, three percent and seven percent, respectively, represent a dramatic downward reduction of eighty-seven percent to ninety-seven percent from the previous central value of forty-five dollars per ton for 2020 at a three percent discount rate (all 2011 dollars).[47] The fact that the earlier numbers had been subject to extensive peer review and that the revisions were made without such review raises obvious questions about the legitimacy of the new numbers.

Finally, I want to comment briefly on three specific regulatory actions: Corporate Average Fuel Economy Standards,[48] the withdrawal of the Clean Power Plan,[49] and the draft of the proposed replacement rule, the Affordable Clean Energy Standard.[50] Each one

[45] *See* Increasing Consistency and Transparency in Considering Costs and Benefits in the Rulemaking Process, 83 Fed. Reg. 27524 (proposed June 13, 2018) (to be codified at 40 C.F.R. ch. I). Most recently, in December 2018, EPA proposed revision to the mercury air toxics rule that severely limits consideration of the ancillary benefits. *See* Kathiann M. Kowalski, *EPA Proposal Would Put Federal Mercury Rules on Shakier Legal Ground*, ENERGY NEWS NETWORK (Jan. 10, 2019), https://energynews.us/2019/01/10/national/epa-proposal-would-put-federal-mercury-rules-on-shakier-legal-ground/.

[46] *See* Plumer, *supra* note 43.

[47] *See* Richard Newell, *Unpacking the Administration's Revised Social Cost of Carbon*, RESOURCES (Oct. 10, 2017), https://www.resourcesmag.org/common-resources/unpacking-the-administrations-revised-social-cost-of-carbon/.

[48] *See* The Safer Affordable Fuel-Efficient (SAFE) Vehicles Rule for Model Years 2021–2026 Passenger Cars and Light Trucks, 83 Fed. Reg. 42986 (proposed Aug. 24, 2018) (to be codified at 40 C.F.R. pts 85 and 86, 49 C.F.R. pts. 523, 531, 533, 536, and 537).

[49] *See* Repeal of Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, 82 Fed. Reg. 48035 (proposed Oct. 16, 2017) (to be codified at 40 C.F.R. pt. 60).

[50] *See* Emission Guidelines for Greenhouse Gas Emissions from Existing Electric Utility Generating Units, 83 Fed. Reg. 44760, 44790 (proposed Aug. 31, 2018) (to be codified at 40 C.F.R. pts. 51, 52, and 60).

of these actions involves particular economic challenges. In the CAFE revision, despite an Administration that has questioned the use of ancillary benefits, we see strong reliance on estimates of negative safety benefits to justify relaxation of fuel efficiency standards.[51] Further, the RIA gives considerable weight to a recent estimate of the rebound effect and the negative ancillary benefits associated with the additional vehicle miles traveled.[52]

In contrast, the case for withdrawing the Clean Power Plan seems to rest almost exclusively on the cost analysis. Ancillary benefits are given short shrift, despite the substantial increase in PM mortality associated with the withdrawal.

To EPA's credit, the Affordable Clean Energy Standard does include a benefits analysis based on standard Agency approaches for treatment of ancillary benefits while relying on the revised values of the SCC.[53] By my reading, the RIA would support the most stringent of the three options considered. The fact that the Agency is proposing a less stringent option which leaves a lot of foregone net benefits on the table calls into question their adherence to the welfare maximizing provisions of the E.O.s.

I've touched on a wide range of topics in the history of economics at EPA. The obvious conclusion is that we've come a long way over the past five decades, but it's still a work in progress. Whereas most of the effort over the past years has involved defending rigorous economic analysis from attacks on the left, the battlefield has now moved to defending against attacks from the right. Stay tuned!

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[51] *See* Brad Plumer, *Trump Officials Link Fuel Economy Rules to Deadly Crashes. Experts Are Skeptical*, N.Y. TIMES (Aug. 2, 2018), https://www.nytimes.com/2018/08/02/climate/trump-fuel-economy.html.

[52] *See* Ted Nordhaus & Alex Trembath, *Using Trump's Bad-Faith CAFE Standards Proposal to Better Understand Efficiency Rebound*, GREEN TECH MEDIA (Sept. 11, 2018), https://www.greentechmedia.com/articles/read/using-trumps-cafe-standards-proposal-to-understand-efficiency-rebound#gs.r1p58a.

[53] *See* EPA, REGULATORY IMPACT ANALYSIS FOR THE PROPOSED EMISSION GUIDELINES FOR GREENHOUSE GAS EMISSIONS FROM EXISTING ELECTRIC UTILITY GENERATING UNITS 4–7 (2018), https://www.epa.gov/sites/production/files/2018-08/documents/utilities_ria_proposed_ace_2018-08.pdf.

REMARKS OF VICKIE PATTON[****]

In 2008, Judge Betty Fletcher was reviewing a policy advanced by the George W. Bush administration that provided for very nominal improvements in fuel economy.[54] The policy action assigned a zero value to the societal stakes for mitigating carbon pollution.[55] The Department of Transportation had a responsibility to set maximum feasible standards under the relevant statute, the Energy Policy and Conservation Act, and interpret that responsibility as providing for a cost-benefit analysis. And it said, when we're looking at the societal benefits of improving fuel economy and the commensurate reductions in climate pollution, the answer is zero. We're assigning a zero value.[56] A number of advocacy groups submitted comments laying out in extensive detail the science and the economics that actually showed that you could assign a monetized value to each ton of carbon pollution that is mitigated. And this was based on years of research and analysis.[57]

Judge Fletcher looked at that record and looked at the administrative agencies' own recognition that it was carrying out its responsibility, weighing societal benefits and costs, and said, you have inappropriately put your thumb on the scale to distort your responsibility.[58] You have undervalued, in a very serious way, societal benefits and distorted your delegated rulemaking

**** General Counsel, Environmental Defense Fund.

[54] *See* Ctr. for Biological Diversity v. Nat'l Highway Traffic Safety Admin., 538 F.3d 1172, 1181 (9th Cir. 2008).

[55] *See id.* at 1181 ("[C]alculation of the costs and benefits of alternative fuel economy standards assigns zero value to the benefit of carbon dioxide (CO_2) emissions reductions.").

[56] *See* Average Fuel Economy Standards for Light Trucks, Model Years 2008–2011, 71 Fed. Reg. 17,566, 17,638 (Apr. 6, 2006) (codified at 49 C.F.R. pt. 533) ("The agency continues to view the value of reducing emissions of CO_2 and other greenhouse gases as too uncertain to support their explicit valuation and inclusion among the savings in environmental externalities from reducing gasoline production and use.").

[57] *See, e.g.*, Union of Concerned Scientists, Comments Concerning NHTSA's Notice of Proposed Rulemaking Regarding Average Fuel Economy Standards for Light Trucks – Model Years 2008–2011 (Nov. 25, 2005), https://www.regulations.gov/document?D=NHTSA-2005-22223-1978.

[58] *See Ctr. for Biological Diversity*, 538 F.3d at 1198 ("[The agency] cannot put a thumb on the scale by undervaluing the benefits and overvaluing the costs of more stringent standards.").

responsibility.[59] She struck that down. And that decision really catalyzed a recognition that within the framework of consideration of societal benefits and societal costs, we've got to make sure it's thorough. It's got to be extensive. It's got to be fair and fulsome and complete.[60]

And the work of Policy Integrity over the last decade has really been all about that—ensuring that as policymakers are making these really important decisions that affect American life, they're examining all of the societal benefits at stake. Since that decision in 2008, it has become a hallmark, a pillar, of reasoned decisionmaking for policymakers that you consider the climate pollution implications of your actions, and you assign a monetary value to that.

There is a body of cases and a number of major court of appeals interpreting actions affecting energy efficiency appliance standards, major federal actions under the National Environmental Policy Act, important decisions all across American life where courts of appeals have now held that this is required as part of rigorous decisionmaking. States all across the country are now looking at incorporating the consideration of climate impacts and the costs, the societal costs, of carbon pollution into their decisionmaking.[61] It's a reminder that when we think about these issues in a multidisciplinary context, when we think about economics and science and law in an integrated way, it is really powerful. It can have a tremendous impact and we've seen that impact in the actions of the current administration because that rigor, that commitment to science and economics and law, underpins a number of major policy actions that are now the subject of rollbacks. That are now the subject of change and attack. And so we've seen that judges reviewing those actions have looked at the underlying record and concluded that those rollbacks are flawed.

In February of this year, Judge Orrick in the Federal District Court in the Northern District of California enjoined the Trump

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[59] *See id.* at 1200 (finding the failure to monetize carbon pollution arbitrary and capricious).

[60] *See* Robert Reiley, *The Evolution of NEPA in the Fight Against Climate Change*, 5 PITT. J. ENVTL. PUB. HEALTH L. 1, 40 (2011) ("The courts have effectively adopted a posture that these direct and indirect effects [of climate change] must be examined.").

[61] *See generally* Kirsten H. Engel, Barak Y. Orbach, *Micro-Motives and State and Local Climate Change Initiatives*, 2 HARV. L. & POL'Y REV. 119 (2008).

administration's suspension of oil and gas methane waste prevention standards on public lands.[62] These are public and tribal lands where the Bureau of Land Management (BLM) has had modest measures in place to require the oil and gas operators really do their fair share in not wasting what is fundamentally a public resource.[63] And they took this action. Again, putting their thumb on the scale. This was a one-year suspension. And the Trump administration assigned all of the cost savings and said, we're going to suspend this for a year and we'll have cost savings for decades. And in the benefits analysis, they assigned the benefits of mitigating air pollution for one year.[64] And so Judge Orrick looked at this and said, this is again putting your thumb on the scale to distort the proper consideration of societal benefits and costs, and struck it down.[65]

You can see that rigor and transparency are resilient. That having multidisciplinary economics, law, and science underpinning these policy decisions in a rational world makes it very difficult to overturn them without a compelling analysis to support those kinds of reversals. Megan Ceronsky talked about the changes to the Clean Power Plan. One of the major aspects of the change that the current administration has proposed indicates that, in their own analysis, there will be a thousand lives lost every year as a result of this shift in policy.[66] That has engendered some reporting and some public conversation. That will also be a central aspect of the legal challenge to this reversal in policy—that the U.S. government is putting in place a shift—a radical shift—in policy that by its own admission shows that a thousand lives will be lost every year. That makes it

[62] *See* California v. Bureau of Land Mgmt., 286 F. Supp. 3d 1054 (N.D. Cal. 2018).

[63] *See* Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83,008 (Nov. 18, 2016) (to be codified at 43 C.F.R. pts. 3100, 3160, and 3170).

[64] *See California*, 286 F. Supp at 1069 ("BLM cannot have it both ways: either the air quality and climate benefits will be lost indefinitely and not for only one year because the Waste Prevention Rule is not going into effect, and thus industry will never incur the compliance costs, or the air quality and climate benefits are lost for only one year, and there are no reductions in compliance cost because those costs are simply delayed for one year.").

[65] *See id.* at 1070, 1076.

[66] *See* Lisa Friedman, *Cost of New E.P.A. Coal Rules: Up to 1,400 More Deaths a Year*, N.Y. TIMES (Aug. 21, 2018), https://www.nytimes.com/2018/08/21/climate/epa-coal-pollution-deaths.html.

very difficult, in the face of a world where you have to undertake the real concrete analysis of the health impacts and environmental impacts of your action. And you have to make those transparent. It makes it very difficult to justify radical shifts that don't withstand that kind of scrutiny.

This is a difficult moment in American life. The actions and the debate in Washington unfolding right now really underscore that history is not preordained. We fight. We fight for history. For those of you who need a little hope at this moment, I urge you to read the interview with Justice Ruth Bader Ginsburg in the February 2018 Atlantic.[67] That is someone who has looked over the horizon for a long time and made a sustained difference and fought for change and fought for hope.

As we look over the horizon on these important issues that Policy Integrity works on and that affect American life, there are a couple of key things to note. Richard Morgenstern mentioned this debate over the retrospective review of regulation and regulatory policy. Much of that debate right now centers upon reviewing in a retrospective way, looking back at regulatory policy through the lens of excessive costs. We also need to make sure we're looking back at regulatory policy through the lens of opportunities to secure greater public health and environmental benefits. It's not just a single examination.

We also, as we look over the horizon, need to beware of regulatory reform cloaked as a Trojan horse. In the last few years, there's been a big push for regulatory reform under a bill called the Regulatory Accountability Act.[68] The Regulatory Accountability Act would require essentially trial-type hearings for regulatory agencies to adopt regulatory policies, under the guise of regulatory reform.[69] Beware the Trojan horse that is cloaked as regulatory reform.

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[67] *See* Jeffrey Rosen, *Ruth Bader Ginsburg Opens Up About #MeToo, Voting Rights, and Millennials*, ATLANTIC (Feb. 15, 2018), https://www.theatlantic.com/politics/archive/2018/02/ruth-bader-ginsburg-opens-up-about-metoo-voting-rights-and-millenials/553409/.

[68] *See* Regulatory Accountability Act of 2017, S. 951, 115th Congress (2017).

[69] *See* Sam Berger, *Trump's Regulatory Accountability Act Is a License to Kill*, CTR. AM. PROGRESS (May 9, 2017), https://www.americanprogress.org/issues/democracy/news/2017/05/09/432129/trumps-regulatory-accountability-act-license-kill/ ("Agencies would be forced to engage in endless analysis of the potential effects of their proposal and a number of alternate ones, hold time-

We also need to beware of the debate over co-benefits, which is right now one of the major debates in regulatory policy.[70] When you're mitigating the harm associated with one pollutant—for example, if you're addressing the mercury and the arsenic and the acid gases from coal-fired power plants—is it appropriate to also look at the lethal particulates that are being mitigated because of the technology that's going to be installed to reduce those other contaminants, those other air toxics? This is a huge, major debate unfolding right now in American life, and how it's resolved will have lasting consequences for the protection of human health and the environment.

There is an important case where the court looked at the inverse question, where industry was before the court saying, we are worried that EPA has established these new health-based standards for ground-level ozone, tropospheric ozone, and didn't take account of the fact that when ground-level ozone is reduced, there could be increases in skin disease because of ultraviolet radiation.[71] And the court said, yes, you have to consider all of the adverse impacts of salutary positive public policy action, and remanded that to EPA to take a look at those issues and to see if the standard needed to be adjusted in any way.[72]

It cannot be the case that we can't also take into account the co-benefits of those same sort of public policy actions. That we can't say, when we're reducing mercury and arsenic and acid gases from

consuming, trial-like proceedings to resolve any technical or scientific issue raised by industry.").

[70] *See* INST. FOR POLICY INTEGRITY, THE IMPORTANCE OF EVALUATING REGULATORY "CO-BENEFITS" (2017), https://policyintegrity.org/files/publications/Co-Benefits_Factsheet.pdf.

[71] Am. Trucking Ass'ns, Inc. v. EPA, 175 F.3d 1027, 1051 (D.C. Cir. 1999) ("Petitioners presented evidence that according to them shows the health benefits of tropospheric ozone as a shield from the harmful effects of the sun's ultraviolet rays—including cataracts and both melanoma and nonmelanoma skin cancers. In estimating the effects of ozone concentrations, EPA explicitly disregarded these alleged benefits.").

[72] *See id.* at 1053 ("[W]e can see no reason for imposing a higher information threshold for beneficent effects than for maleficent ones . . . . [W]e are remanding to EPA to formulate adequate decision criteria for its ordinary object of analysis—ill effects. We leave it to the agency on remand to determine whether, using the same approach as it does for those, tropospheric ozone has a beneficent effect, and if so, then to assess ozone's net adverse health effect by whatever criteria it adopts.").

coal-fired power plants through methods and technologies that also save lives, that that doesn't matter, that that doesn't count.

And then the final and major issue that we need to be thinking of as we look over the horizon for the next decade, is thinking about distribution of costs and benefits. There's a huge focus on aggregate, but we all know that there have been many, many communities all across America who bore the heavy burden of pollution for far too long.[73] And that matters. And that needs correcting. And the distribution of the harm associated with air pollution matters, and needs to be addressed, and needs to be counted. We also know that the costs get distributed in important ways that affect American life.

There is a transition happening in America in the coal industry. It is happening because coal-based power cannot compete with other forms of electricity. It's not happening because we're putting in well-designed public policies that save lives and ensure healthier, longer life for millions of Americans. That's not why the transition is happening. It's happening because coal-based electricity cannot compete in the marketplace.[74]

In my home state of Colorado, just a couple of weeks ago, the Colorado Public Utilities Commission approved a plan that's going to retire two coal-fired units in Pueblo, Colorado, a manufacturing town.[75] In its place will be over $2 billion of investments of large scale solar, wind, storage—the largest storage energy storage project in the country.[76] The local steel manufacturing facility, which employs a thousand people, has just negotiated a new contract with the power company for 240 megawatts of utility scale solar.[77] That is going to keep that steel mill in that community because energy is its single largest cost. The people of Pueblo are going to see billions of dollars of investments in clean energy. There will be

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[73] *See* Luke W. Cole, *Empowerment as the Key to Environmental Protection: The Need for Environmental Poverty Law*, 19 ECOLOGY L.Q. 619, 620 (1992) ("Poor people bear the brunt of environmental dangers.").

[74] *See* Chris Mooney, *It's The Same Story Under Trump as Under Obama: Coal is Losing Out to Natural Gas*, WASH. POST (Jan. 9, 2018), https://www.washingtonpost.com/news/energy-environment/wp/2018/01/09/its-the-same-story-under-trump-as-under-obama-coal-is-losing-out-to-natural-gas/?utm_term=.463505bf5f88.

[75] *See* Julia Pyper, *Xcel to Replace 2 Colorado Coal Units With Renewables and Storage*, GREEN TECH MEDIA (Aug. 29, 2018), https://www.greentechmedia.com/articles/read/xcel-retire-coal-renewable-energy-storage#gs.r152fc.

[76] *See id.*

[77] *See id.*

wind farms in northeastern Colorado that keep farms in people's families. There will be wind manufacturing in Windsor, Colorado and in Pueblo, Colorado that supply the wind turbines that replaced those coal units.

Coal is being out-competed by other forms of electricity. The reason this action was approved is because it's going to save ratepayers money. This transition is happening in a way that's going to save $213 million dollars for the rate payers, for the power company.[78] We have to be mindful of the distribution of the costs. Right now, President Trump is thinking about a $35-billion bailout for coal.[79] That bailout would be rate payers across America paying for the benefit of a few major coal companies.

Public policy needs to make sure that we're protecting the coal communities. Public policy needs to be mindful of the distribution so that, as we're putting in place all of these new policies and all of these new measures, we're ensuring that the coal communities are not left behind, that there's shared economic benefits like we're seeing in Pueblo, Colorado. The distribution of costs and benefits matters and we have to make sure that's part of how we are thinking about these issues going forward.

In this difficult time, I find hope as we look over the horizon to take on these new challenges, that like the past decade, where it started with a decision of one judge looking at a flawed and poorly reasoned explanation for a Bush administration action that really just refused to improve our nation's fuel economy standards. And out of that came a whole body of policy and case law and a shift in administrative policymaking that made the full consideration of public health and environmental impacts the pillar of regulatory policy and reflected in a whole set of case law and leadership at the state level. That as we look over the horizon and we take on the challenges ahead, Policy Integrity's work is building from leading economics, from dedicated scientists, from attorneys who are taking work from New York University School of Law and law schools across the country and translating it into public policy. We'll leave a nation that has greater protection for human health and the

78 *See id.*

79 *See* Kelsey Tamborrino, *All Eyes on Carbon Tax Vote*, POLITICO (July 19, 2018), https://www.politico.com/newsletters/morning-energy/2018/07/19/all-eyes-on-carbon-tax-vote-284289 (reporting the coal bailout could cost up to $35 billion).

environment that's really thoroughly anchored in and law and economics and science. Thank you for all your work.

SYMPOSIUM PANEL

EMERGING ISSUES IN NATURAL RESOURCES POLICY

JAYNI FOLEY HEIN, NADA WOLFF CULVER, DAVID J. HAYES & BRENDA MALLORY

INTRODUCTION: INTERIOR'S IRRATIONAL ROLLBACKS: PLACING FOSSIL FUELS OVER THE PUBLIC INTEREST, BY JAYNI FOLEY HEIN*

The United States is at a crossroads in national energy policy. The current presidential administration's Department of the Interior (Interior) is committed to a strategy of "energy dominance" that heavily favors fossil fuels.[1] At the same time, the science of climate change is resoundingly clear: burning fossil fuels for energy is a primary driver of climate change, which inflicts mounting damages to the economy, environment, and public health.[2] While the Trump

* Natural Resources Director, Institute for Policy Integrity at New York University School of Law; Adjunct Professor, New York University School of Law.

1 *See* Press Release, White House, President Donald J. Trump is Unleashing American Energy Dominance (May 14, 2019), https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-unleashing-american-energy-dominance.

2 *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2014 SYNTHESIS REPORT 46 (2015) ("Emissions of CO_2 from fossil fuel

administration has hitched its wagon to the fossil fuel energy of the past, legal advocates—including those at the Institute for Policy Integrity at New York University School of Law (Policy Integrity)—are marshaling modern scientific and economic tools to fight these irrational policies in federal court, and often succeeding.

Policy Integrity celebrated its tenth anniversary in September 2018 with a conference entitled, "Energy and Environmental Policy: The Quest for Rationality."[3] I moderated a panel with three public lands and natural resources experts: Nada Culver, Senior Counsel and Director, The Wilderness Society's Bureau of Land Management Action Center;[4] David Hayes, Executive Director of the State Energy & Environmental Impact Center at New York University School of Law and former Deputy Secretary of the Interior; and Brenda Mallory, Executive Director and Senior Counsel, Conservation Litigation Project. In their transcribed, edited remarks that follow this introduction, these esteemed colleagues provide unique perspectives on the challenges and opportunities ahead for public lands and natural resources. This introductory piece sets the stage by discussing key Trump administration deregulatory actions in the natural resources area and describing recent victories for rationality. I conclude with some reflections on Policy Integrity's advocacy and legal scholarship on public lands and natural resources.

A. *Background: Clutching to Fossil Fuels in an Era of Climate Change*

The federal government owns about thirty percent of the land in the United States, the vast majority of which is located in western states.[5] Interior is the federal government's largest landowner, and it is also responsible for deciding whether, and on what terms, to lease public land to private energy developers for coal, oil, and

combustion and industrial processes contributed about 78% of the total GHG emissions increase from 1970 to 2010, with a similar percentage contribution for the increase during the period 2000 to 2010 (high confidence).").

[3] *See Energy and Environmental Policy: The Quest for Rationality*, INST. FOR POLICY INTEGRITY, https://policyintegrity.org/news/event/energy-and-environmental-policy-the-quest-for-rationality3 (last visited Sept. 19, 2019).

[4] In the interim between the symposium and publication, Nada Culver joined the National Audubon Society as Vice President for Public Lands and Senior Policy Counsel.

[5] *See* CAROL HARDY VINCENT ET AL., CONG. RESEARCH SERV., R42346, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA i, 1, 4 (2017).

natural gas extraction, as well as renewable energy development.[6] Interior is subject to a "multiple use" mandate in managing federal lands, which is defined, in part, as "meet[ing] the present and future needs of the American people," through "a combination of balanced and diverse resource uses that takes into account the long-term needs of future generations for renewable and nonrenewable resources, including . . . recreation, range, timber, minerals, watershed, wildlife and fish, and natural scenic, scientific and historical values."[7] Interior is also directed by statute to prevent unnecessary or undue degradation of public lands.[8]

In the first half of the Trump administration, Interior has embarked upon rulemaking processes to roll back cost-benefit justified regulations designed to curb potent methane emissions from oil and gas wells;[9] weaken offshore drilling safety rules passed in the wake of the BP Deepwater Horizon oil spill disaster;[10] rescind a rule governing hydraulic fracturing;[11] and rescind a rule designed to close corporate loopholes when valuing royalties from fossil fuel production.[12] Each of these regulatory rollbacks would weaken or rescind cost-benefit justified regulations passed by prior administrations, resulting in the transfer of hundreds of millions of

[6] *See id*. at 4; 30 U.S.C. §§ 201, 226 (2012).

[7] 43 U.S.C. § 1702(c) (2012).

[8] *See id.* § 1732(b).

[9] *See* Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements, 83 Fed. Reg. 49,184, 49,184 (Sept. 2018) (to be codified at 43 C.F.R. pts. 3160, 3170) ("In this action, the Bureau of Land Management is revising its regulations, as amended by the November 18, 2016, rule . . . in a manner that reduces unnecessary compliance burdens. . .").

[10] *See* Oil and Gas and Sulphur Operations in the Outer Continental Shelf—Blowout Preventer Systems and Well Control Revisions, 83 Fed. Reg. 22,128 (May 11, 2018) (to be codified at 30 C.F.R. pt. 250) ("The Bureau of Safety and Environmental Enforcement is proposing to revise existing regulations for well control and blowout preventer systems. This proposed rule would revise requirements for well design, well control, casing, cementing, real-time monitoring, and subsea containment.").

[11] *See* Oil and Gas; Hydraulic Fracturing on Federal and Indian Lands; Rescission of a 2015 Rule, 82 Fed. Reg. 61,924 (Dec. 29, 2017) (to be codified at 43 C.F.R. pt. 3160).

[12] *See* Repeal of Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform, 82 Fed. Reg. 36,934 (Aug. 7, 2017) (to be codified at 30 C.F.R. pts. 1202, 1206).

dollars of benefits from the public to the fossil fuel industry, and subjecting the public to greater environmental risks.[13]

Amidst these costly regulatory rollbacks—designed to remove "burdens" on the energy industry[14]—Interior is contemplating opening vast new swaths of federal lands and waters to fossil fuel extraction, from the pristine Arctic National Wildlife Refuge to offshore waters along the entire United States coastline.[15] President Trump has taken actions rescinding offshore oil and gas leasing moratoria enacted by President Obama and downsizing national monuments established by his predecessors to allow for fossil fuel extraction.[16] For instance, President Trump, by proclamation, reduced Bears Ears National Monument by roughly eighty-five percent, replacing it with two much smaller, noncontiguous areas and allowing former monument areas to be opened to uranium mining, oil and gas drilling, road construction, and mechanized vehicles.[17] All of these actions have been pursued in the name of "energy dominance," but it is clear that the public may incur great economic and environmental losses from these policies if they are allowed to stand.[18] The true beneficiary of these policies is the fossil fuel industry.

While the Trump administration embraces the fossil fuel energy sources of the past, the urgent threat that climate change poses to the economy, environment, and public health is increasingly clear. The Intergovernmental Panel on Climate Change is unequivocal that emissions from fossil fuel combustion are the

[13] *See* INST. FOR POLICY INTEGRITY, HEALTH & ENVIRONMENTAL BENEFITS UNDER THREAT FROM RECENT ENVIRONMENTAL DEREGULATORY ACTIONS (2019), https://policyintegrity.org/documents/Benefits_at_Stake.pdf.

[14] *See* Exec. Order No. 13783, 82 Fed. Reg. 16093 (Mar. 28, 2017).

[15] *See generally* BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, COASTAL PLAIN OIL AND GAS LEASING PROGRAM EIS (Apr. 20, 2018); *see also* BUREAU OF OCEAN ENERGY MGMT., U.S. DEP'T OF THE INTERIOR, 2019–2024 NATIONAL OUTER CONTINENTAL SHELF OIL AND GAS LEASING DRAFT PROPOSED PROGRAM 1 (2018).

[16] *See* Yereth Rosen, *U.S. Judge Scraps Trump Order Opening Arctic, Atlantic Areas to Oil Leasing*, REUTERS (Mar. 30, 2019), https://www.reuters.com/article/us-usa-oil-trump-leases/u-s-judge-scraps-trump-order-opening-arctic-atlantic-areas-to-oil-leasing-idUSKCN1RB0FP.

[17] *See NRDC et. al v. Trump (Bears Ears)*, NAT. RESOURCES DEF. COUNCIL, https://www.nrdc.org/court-battles/nrdc-et-v-trump-bears-ears (last updated Nov. 8, 2019).

[18] *See* INST. FOR POLICY INTEGRITY, *supra* note 13.

leading cause of climate change.[19] Economists are sounding alarms, as well. In early 2019, the Federal Reserve released a report finding that climate change is expected to cause growing losses to American infrastructure, property, and the economy.[20] Economists view these losses as the result of a fundamental market failure: fossil fuel prices do not properly account for climate change costs. Bold new policies are needed to address increasingly costly climate change.

While states, cities, and other subnational groups press forward, filling the federal climate leadership void, advocates are pushing back against Interior's irrational rollbacks in the courts.

B. *Reinstating Rationality Through the Courts*

Environmental organizations and state attorneys general have challenged several actions by Interior to rollback cost-benefit justified environmental regulations. Many of these challenges have been successful.[21]

One important bulwark in public lands litigation is the Administrative Procedure Act (APA), which requires federal agencies to follow certain procedures when issuing, staying, or repealing regulations.[22] States and environmental organizations have brought several successful federal lawsuits challenging Interior's stays and rollbacks on the basis of APA violations. Federal courts have held that:

Interior's repeal of the Valuation Rule, which governs fossil fuel royalties, violated the APA by failing to provide a "reasoned explanation" for the change in policy;[23]

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[19] *See* INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *supra* note 2, at 4–5.

[20] *See* Glenn D. Rudebusch, *Climate Change and the Federal Reserve*, FED. RESERVE BANK OF SAN FRANCISCO: ECON. LETTERS (Mar. 15, 2019), https://www.frbsf.org/economic-research/publications/economic-letter/2019/march/climate-change-and-federal-reserve/?utm_source=frbsf-home-economic-letter-title&utm_medium=frbsf&utm_campaign=economic-letter.

[21] *See* Joe Sexton, *Trump, All About Winning, Sees Losses in Court Pile Up*, PROPUBLICA (Apr. 2, 2019, 3:02 PM), https://www.propublica.org/article/president-donald-trump-losses-fred-barbash-washington-post-q-and-a.

[22] *See* Administrative Procedure Act of 1967, 5 U.S.C. § 553 (2012).

[23] *See* Pamela King, *Court Blocks Trump's Rule Rollback*, E&E NEWS (Apr. 15, 2019), https://www.eenews.net/stories/1060162603.

Interior's delay of the Valuation Rule also violated the APA because the agency failed to seek public comment and lacked statutory authority for the delay;[24]

Interior's delay of the Waste Prevention Rule, which limited methane emissions from oil and gas wells, violated the APA's notice-and-comment requirements and arbitrarily failed to consider the forgone benefits of the Waste Prevention Rule;[25]

Interior's proposed replacement of the Waste Prevention Rule was likely to be found arbitrary and capricious, justifying a preliminary injunction, because the agency failed to give any reasons for changing course;[26] and

Interior violated the APA when it agreed to a land exchange with Alaska intended to facilitate building a road through Izembek National Wildlife Refuge, because it failed to acknowledge its prior position that the land exchange should not go through due to environmental harm to the Refuge.[27]

Policy Integrity has played an active role in supporting these legal challenges by submitting regulatory comments,[28] filing amicus

[24] *See* Becerra v. U.S. Dep't of the Interior, 276 F. Supp. 3d 953, 966 (N.D. Cal. 2017).

[25] *See* California v. U.S. Bureau of Land Mgmt., 277 F. Supp. 3d 1106, 1111, 1121–22 (N.D. Cal. 2017), *appeal dismissed*, No. 17-17456, 2018 WL 2735410 (9th Cir. Mar. 15, 2018).

[26] *See* California v. U.S. Bureau of Land Mgmt., 286 F. Supp. 3d 1054, 1068 (N.D. Cal. 2018).

[27] *See* Friends of Alaska Nat'l Wildlife Refuges v. Bernhardt, 3:18-cv-00029-SLG, slip op. at 12, 21, 23, 28 (D. Alaska Mar. 29, 2019), https://s3.amazonaws.com/arc-wordpress-client-uploads/adn/wp-content/uploads/2019/03/29073148/Izembek-Exchange-Agreement-order.pdf

[28] *See, e.g.*, Inst. for Policy Integrity, Comment Letter on Proposed Repeal of Consol. Fed. Oil & Gas and Fed. & Indian Coal Valuation Reform (May 4, 2017), https://policyintegrity.org/documents/Policy_Integrity_Comments_on_Proposed_Repeal.pdf; Inst. for Policy Integrity, Comment on the Proposed Recession or Revision of Certain Requirements for Waste Prevention and Res. Conservation (Apr. 23, 2018), https://policyintegrity.org/documents/Policy_Integrity_Comments_to_BLM_on_Waste_Prevention_Rescission.pdf.

briefs,[29] and authoring relevant legal scholarship[30] and op-eds explaining why the agency's irrational actions should not withstand judicial scrutiny.[31] Other lawsuits challenging deregulatory actions are underway, led by state attorneys general and environmental groups.

Another category of court decisions addressed President Trump's actions affecting natural resources. In a major setback for the "energy dominance" agenda, in early 2019, a federal court held that President Trump could not reverse former President Obama's permanent withdrawal of certain offshore areas from oil and gas leasing, including regions in the Arctic and Atlantic.[32] Federal courts are in the process of deciding whether an acting President can downsize existing national monument boundaries absent express statutory authority to do so, as President Trump did to Bears Ears and Grand Staircase Escalante national monuments.[33] Policy Integrity authored scholarship on these legal questions.[34]

[29] *See, e.g.*, Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae in Support of Plaintiffs' Motion for Summary Judgment at 7, California v. Dep't of the Interior, 381 F. Supp. 3d 1153 (N.D. Cal. 2019) (No. 17-cv-05948-SBA), https://policyintegrity.org/documents/ONRR_Valuation_Rule_Brief_062518.pdf; Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae In Support of Respondents-Intervenors and Dismissal, Wyoming v. U.S. Dep't of Interior, 366 F. Supp. 3d 1284 (D. Wyo. 2018) (No. 2:16-cv-00285-SWS), https://policyintegrity.org/documents/BLM_Methane_Brief_WY_v_DOI.pdf.

[30] *See* Bethany A. Davis Noll & Denise A. Grab, *Deregulation: Process and Procedures that Govern Agency Decisionmaking in an Era of Rollbacks*, 38 ENERGY L.J. 269, 269, 295 (2017); Jayni Hein, *Fed. Lands and Fossil Fuels*, 42 HARV. ENVTL. L. REV. 1, 4, 42 (2018).

[31] *See e.g.,* Jayni Hein, *Pushing for the Public Interest*, N.Y. TIMES (June 6, 2018), https://www.usnews.com/news/national-news/articles/2018-06-06/putting-fossil-fuel-interest-over-the-public-interest; Bethany A. Davis Noll & Jayni F. Hein, *Trump Follows Through on Deregulation, But At What Cost*, HILL (June 23, 2017), https://thehill.com/blogs/pundits-blog/energy-environment/339140-trump-follows-through-on-deregulation-but-at-what-cost.

[32] *See* Rosen, *supra* note 16.

[33] *See* NAT. RESOURCES DEF. COUNCIL, *supra* note 17; *The Wilderness Society et al. v. Trump et al.*, NAT. RESOURCES DEF. COUNCIL, https://www.nrdc.org/court-battles/wilderness-society-et-v-trump-et-grand-staircase-escalante (last updated Nov. 8, 2019).

[34] *See, e.g.*, Jayni Foley Hein, *Monumental Decisions*, 48 ENVTL. L.J. 125, 126 (2018); Memorandum from the Institute of Policy Integrity at New York University School of Law to Rebecca Doolittle, Project Manager, Bureau of Land Mgmt. (Nov. 15, 2018) (on file with New York University Environmental Law Journal).

Finally, a third category of cases has scrutinized the climate change analysis agencies must conduct when evaluating potential new federal mining, drilling, and infrastructure projects, in order to comply with the National Environmental Policy Act (NEPA).[35] The current administration's public lands and energy policy conspicuously lacks any climate change goals, but that does not exempt agencies from disclosing and evaluating climate change effects in their environmental reviews pursuant to NEPA. Federal courts have held that Interior must account for upstream and downstream climate effects in oil, gas, and coal leasing decisions,[36] and that the Federal Energy Regulatory Commission must do the same for interstate natural gas pipeline approvals.[37]

Moreover, some federal courts have held that federal agencies must monetize climate change effects—by using the Interagency Working Group's global social cost of greenhouse gases—when they describe the economic benefits of proposed projects; otherwise, they risk understating environmental costs and placing a thumb on the scale in favor of development.[38] Policy Integrity's amicus briefs, comments, and scholarships have supported this litigation, advocating for appropriate and comprehensive NEPA analysis, including the use of the Interagency Working Group's social cost of greenhouse gases as an accessible, peer-reviewed measure of incremental climate damages.[39]

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[35] *See* National Environmental Policy Act (NEPA) of 1970, 42 U.S.C.A. § 4321 (2012).

[36] *See* WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222, 1235, 1237 (10th Cir. 2017); WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41, 59 (D.D.C. 2019); W. Org. of Res. Councils v. U.S. Bureau of Land Mgmt., No. CV-16-21-GF-BMM, 2018 WL 1475470 at *12 (D. Mont. Mar. 26, 2018); San Juan Citizens Alliance v. U.S. Bureau of Land Mgmt., 326 F.Supp. 3d 1227, 1228 (D.N.M. 2018); Mont. Envtl. Info. Ctr. v. U.S. Office of Surface Mining, 274 F. Supp. 3d 1074, 1101–03 (D. Mont. 2017).

[37] *See* Sierra Club v. Fed. Energy Regulatory Comm'n, 867 F.3d 1357, 1371, 1375 (D.C. Cir. 2017).

[38] *See* High Country Conservation Advocates v. U.S. Forest Serv., 52 F. Supp. 3d 1174, 1191 (D. Colo. 2014); *Mont. Envtl. Info. Ctr.*, 274 F. Supp. 3d at 1085–99.

[39] *See e.g.*, Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae In Support of Plaintiff's Motion for Summary Judgment at 14–15, WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41 (D.D.C. 2019) (No. 16-1724), https://www.law.nyu.edu/sites/default/files/Wildearth.proposed.amicus.brief-filed.pdf

C. *Policy Integrity's Earlier Contributions to Federal Natural Resources Law and Policy*

Policy Integrity's tenth anniversary is an apt time to reflect, briefly, on the organization's previous contributions to federal natural resources law and policy. Before the present era of deregulation, Policy Integrity was focused on advocating for more rational public lands decision-making that accounts for environmental costs.

Policy Integrity supported a major policy change in January 2016, when Interior launched a new effort to reform the federal coal leasing program, placing a moratorium on new coal leases while it conducted a review and evaluated potential changes.[40] Policy Integrity had been encouraging similar reforms for more than a year, sharing our research with officials at Interior and the White House and authoring several reports that were heavily cited in the scoping report for the review.[41]

Policy Integrity has also provided extensive input on the appropriate methods for analyzing the greenhouse gas impacts of natural resource extraction, leading to important court rulings on this issue. Policy Integrity filed comments on dozens of environmental impact statements for extraction projects, urging the full quantification of climate impacts using the Interagency Working Group's Social Cost of Carbon and Social Cost of Methane. Policy Integrity also filed amicus briefs in multiple cases on this issue. In September 2017, the U.S. Court of Appeals for the Tenth Circuit held that the Bureau of Land Management (BLM) violated NEPA by providing an inadequate analysis of the likely climate impacts from four major coal leases.[42] Policy Integrity's amicus brief for the case focused on the economic arguments at the

[40] *See* DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3338 (2016), *rescinded by* DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3348 (2017).

[41] *See generally* JAYNI FOLEY HEIN & PETER HOWARD, INST. FOR POLICY INTEGRITY, ILLUMINATING THE HIDDEN COSTS OF COAL (2015); JAYNI FOLEY HEIN, INST. FOR POLICY INTEGRITY, PRIORITIES FOR FEDERAL COAL REFORM: TWELVE POLICY AND PROCEDURAL GOALS FOR THE PROGRAMMATIC REVIEW (2016); JAYNI FOLEY HEIN & PETER HOWARD, INST. FOR POLICY INTEGRITY, RECONSIDERING COAL'S FAIR MARKET VALUE: THE SOCIAL COSTS OF COAL PRODUCTION AND THE NEED FOR FISCAL REFORM (2015); JAYNI FOLEY HEIN & CAROLINE CECOT, INST. FOR POLICY INTEGRITY, COAL ROYALTIES HISTORICAL USES AND JUSTIFICATIONS (2016).

[42] *See* WildEarth Guardians v. U.S. Bureau of Land Mgmt., 870 F.3d 1222, 1222, 1235 (10th Cir. 2017).

center of the ruling. This ruling helped establish important legal precedent for the quantification of greenhouse gas emissions in environmental impact statements. In addition, our amicus brief in a 2019 case supported a ruling that the BLM must consider the cumulative impact of greenhouse gas emissions generated by past, present, and reasonably foreseeable lease sales.[43]

Since 2009, we have advocated that government leasing decisions account for "option value," a financial concept that places value on delaying irreversible decisions in order to gain more information. We have suggested policy changes through academic publications,[44] numerous public comments, and a federal lawsuit in which the D.C. Circuit said for the first time that option value must be taken into account and, when feasible, also quantified.[45] Interior ultimately changed its practices, as the offshore oil and gas leasing program proposed in early 2015 devoted several pages to option value and related concepts, using language that closely resembled the arguments Policy Integrity had repeatedly made to the agency.[46] Likely effects of this change include less leasing in sensitive areas and higher minimum bids for lease sales. We have also testified before Congress on offshore oil and gas leasing, and provided extensive input to Interior's Royalty Policy Committee.[47]

Conclusion

While the Trump administration clutches to the fossil fuels of the past, advocates are successfully challenging its deregulatory

[43] *See generally* Brief of the Institute for Policy Integrity at New York University School of Law as Amicus Curiae In Support of Plaintiff's Motion for Summary Judgment, WildEarth Guardians v. Zinke, 368 F. Supp. 3d 41 (D.D.C. 2019) (No. 16-1724), https://www.law.nyu.edu/sites/default/files/Wildearth.proposed.amicus.brief-filed.pdf.

[44] *See, e.g.*, Michael A. Livermore, *Patience is an Economic Virtue: Real Options, Natural Resources, and Offshore Oil*, 84 U. COLO. L. REV. 581, 581 (2013).

[45] *See* Ctr. for Sustainable Econ. v. Jewell, 779 F.3d 588, 610 (D.C. Cir. 2015).

[46] *See* BUREAU OF OCEAN ENERGY MGMT, U.S. DEP'T OF THE INTERIOR, 2017–2022 OUTER CONTINENTAL SHELF OIL AND GAS LEASING DRAFT PROPOSED PROGRAM at 8-3, 8-4, 8-13 (2015), https://perma.cc/8AU3-7MS4; Inst. For Policy Integrity, Comments to the Bureau of Ocean Energy Management on its Five-Year Offshore Leasing Program from 2017–2022 (July 31, 2014), https://policyintegrity.org/documents/Comments_to_BOEM_on_2017-22_Program.pdf.

[47] *See, e.g.,* Inst. for Policy Integrity, Comments to Royalty Policy Committee, Dep't. of the Interior (Apr. 23, 2018), https://policyintegrity.org/documents/RoyaltyPolicyCommittee_Feb_2018_comments.pdf.

actions. Economic principles, like balanced cost-benefit analysis and quantification of environmental costs, have a played a key role in demonstrating the irrationality of many of these rollbacks in federal court, as well as in the court of public opinion.

REMARKS OF NADA WOLFF CULVER[**]

The way we split this panel is that I'm going to talk a bit about litigation. The title of this conference was a little challenging, with the "Quest for Rationality" idea. In the litigation context, what we're seeing is that there really isn't a quest for rationality. Rather, the quest seems to be to undo anything that relates to conservation, especially conservation in the last administration. I work a lot with the BLM, which is the biggest land manager actually in the country. In addition to managing most of the surface estate in the country, about 250 million acres, they manage all of the mineral estate, which means they handle all the oil and gas leasing for all the federal agencies and all the coal.[48]

BLM is pretty much the favorite agency of this administration. They've been very, very, very busy. They've also been the target of a lot of litigation.[49] There are a lot of claims of rationality and economic principles to support actions that undermine conservation. But, what we're seeing is that they're not really living up to that, and the courts are noticing it.

One of the topics that has come up a few times today is related to what we refer to as BLM's methane rule.[50] The methane is released because when you produce oil, you also produce natural gas. With the natural gas, you can either vent or flare it.[51] So if you

[**] Vice President, Public Lands, and Senior Policy Counsel, National Audubon Society.

[48] *See* MARK K. DESANTIS, CONGRESSIONAL RESEARCH SERV., R45480, U.S. DEPARTMENT OF THE INTERIOR: AN OVERVIEW 8 (2019), https://fas.org/sgp/crs/misc/R45480.pdf; *see also An All of the Above Energy Approach*, BUREAU OF LAND MGMT., https://www.blm.gov/programs/energy-and-minerals (last visited Oct. 30, 2019).

[49] See discussion *infra* for examples.

[50] *See* CAROL HARDY VINCENT, CONGRESSIONAL RESEARCH SERV., R42346, FEDERAL LAND OWNERSHIP: OVERVIEW AND DATA (2017), https://fas.org/sgp/crs/misc/R42346.pdf.

[51] *See* Paul Rauber, *Let It Burn: Congress Allows Flaring, Venting of Methane Gas*, SIERRA CLUB (Feb. 3, 2017), https://www.sierraclub.org/sierra/green-life/let-it-burn-congress-allows-flaring-venting-methane-gas.

ever see pictures of flames coming out, if you've seen *There Will Be Blood*,[52] what that is, is the flaring of natural gas. Sometimes producers capture that and sell it, but sometimes, it is too annoying for them to do so. The reason that we want oil and gas producers to capture it is because methane is one of the most devastating pollutants in terms of its effect on climate change.[53] But also, if as a producer you capture that natural gas, you sell it. And we, the American people, get the royalties.[54] So there is both fiscal and environmental responsibility there. Under the Obama administration, a rule was issued to require checking for methane leaks.[55] And also capturing the gas and selling it for royalties.[56] Imagine that.

There was a lawsuit brought right at the end of the Obama administration by a couple of states and two industry groups to try to kill the methane rule.[57] But, that didn't work. There was also an effort to end the methane rule that was then in effect by using the Congressional Review Act.[58] That was stopped by John McCain.[59]

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[52] THERE WILL BE BLOOD (Paramount Vintage 2007).

[53] *See* Rauber, *supra* note 51.

[54] TAXPAYERS FOR COMMON SENSE, GAS GIVEAWAYS: METHANE LOSSES ARE A BAD DEAL FOR TAXPAYERS 3 (2018), https://www.taxpayer.net/wp-content/uploads/2018/04/TCS-Report-Gas-Giveaways_-April-2018.pdf.

[55] *See* Waste Prevention, Production Subject to Royalties, and Resource Conservation, 81 Fed. Reg. 83008, 83011 (Nov. 18, 2016) (to be codified at 43 C.F.R. pts. 3100, 3160, 3170).

[56] *See id*.

[57] *See* Ellen M. Gilmer, *The Many Lives of BLM Methane Litigation*, E&E NEWS (May 3, 2018), https://www.eenews.net/stories/1060080679.

[58] *See* Mark Hand, *GOP Fails to Repeal Obama Methane Rule after John McCain, 2 Other Republicans Defect*, THINKPROGRESS (May 10, 2017), https://thinkprogress.org/senate-votes-to-save-blm-methane-rule-d2f0c9db71ce/. In August 2019, EPA issued a proposed rule that would rescind emissions limits on methane in transmission and storage: "Because the proposed amendments would remove sources in the transmission and storage segment from the source category, the proposal also would rescind the emissions limits in the 2012 and 2016 NSPS that currently apply to those sources. These include limitations on both methane emissions and emissions of VOCs." EPA, FACT SHEET: EPA PROPOSES POLICY AMENDMENTS TO THE 2012 AND 2016 NEW SOURCE PERFORMANCE STANDARDS FOR THE OIL AND NATURAL GAS INDUSTRY (2019), https://www.epa.gov/sites/production/files/2019-08/documents/fact_sheet._proposed_amendments_to_nsps_for_oil_and_natural_gas_industry.8.28.19.pdf. As an alternative, EPA is "proposing to rescind the methane requirements in the NSPS for oil and natural gas sources, without removing any sources from the source category." *Id.*

[59] *See* Hand, *supra* note 58.

There's some great video of him going up to vote and this gaggle of Republican senators trying to stop him and he shoves them out of the way and gives them the thumb down.[60]

After that, the BLM tried, in June 2017, to issue a rule under Section 705 of the APA, which allows you to delay the effective date of regulations.[61] Now, to delay the effective date of regulations—that would be for regulations not yet in effect. The methane regulation was already in effect. But they just tried anyway. The court said no, you actually cannot do that—with quite a bit of a snarky language—and said, you cannot use this for regulations already in effect.[62] And in terms of the economics and rationality, there was language highlighting the fact that the attempt to delay the rule has actually caused more uncertainty for industry, not less. So BLM tried again in December 2017, when they issued a new rule to suspend the existing rule. And, I think Vickie Patton (of Environmental Defense Fund) mentioned this one. And in this situation, a court actually enjoined the suspension rule.[63] For those of you who have recently been studying the rules of civil procedure in class, this is a very high bar. It's not easy to get an injunction, but the court said that BLM's reasoning was untethered to evidence.[64] So the court was not simply granting an injunction. The court was pretty much insulting the suspension rule, and noting that there is irreparable harm by putting this suspension rule into effect.

Just last week, a new rescission rule was issued, and it was published in the Federal Register today.[65] There was already a complaint filed in the Northern District of California by the states of California and New Mexico last week.[66] I really hope and believe

[60] *See Senate Session*, C-SPAN (May 10, 2017), https://www.c-span.org/video/?428302-1/senators-speak-fbi-directors-firing (covering Senate session in which John McCain votes against BLM methane rule).

[61] *See* Ellen M. Gilmer, *Court Nixes Trump Admin's 'Unlawful' Delay of BLM Rule*, E&E NEWS (Oct. 4, 2017), https://www.eenews.net/stories/1060062677.

[62] *See id*.

[63] *See* Ellen M. Gilmer, *Court Reverses 'Untethered' Suspension of BLM Methane Rule*, E&E NEWS (Feb. 23, 2018), https://www.eenews.net/stories/1060074579.

[64] *See id.*

[65] *See* Waste Prevention, Production Subject to Royalties, and Resource Conservation; Rescission or Revision of Certain Requirements, 83 Fed. Reg. 49184 (Nov. 27, 2018) (to be codified at 43 C.F.R. pts. 3160, 3170).

[66] *See* Complaint for Declaratory and Injunctive Relief, California v. U.S. Bureau of Land Mgmt., No. 3:17-cv-07186 (N.D. Cal. Dec. 19, 2017).

that The Wilderness Society and a number of other groups will be following our case today. But the complaint filed by California and New Mexico has some pretty snarky language, as well, noting that this is a rule that repeals requirements that just one year ago BLM determined were necessary to fulfill statutory mandates to avoid waste.[67] So we'll see where this one goes, but I'm optimistic we'll get some new snarky language from the courts in California.

Moving on to another one. I wanted to highlight some challenges to oil and gas leasing in sage grouse habitat. How many people have seen a sage grouse? Oh, good. A couple. So here's a picture of a sage grouse.[68] It's often referred to as a chicken-sized flightless bird. I put this picture in here to show you it's not all of those things. It does also fly when chased by raptors or water trucks.[69] How many people here have purchased oil and gas leases? Okay. So what you should know about those, and the reason that this lawsuit was brought, is once you've purchased an oil and gas lease on federal land, it's good for at least ten years.[70] You can get it extended beyond that as long as you drill or if you ask the BLM to extend it for you.[71] Once leases are issued, this has a huge impact on federal land.[72] And this administration changed the way that leasing was happening on our federal lands. It's no longer required for the BLM to conduct environmental review before issuing leases.[73] It's no longer required to allow public comment.[74] We are still allowed to file administrative protests, but we only get ten days to do that.[75] And if you issue the decision on a Friday, that ten days goes by pretty quickly. Also, you're not allowed to email in a protest, you have to fax them. Anybody own a fax machine? Yes. Very challenging.

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67 *See id.* at 3.

68 *See, e.g.*, *Guide to North American Birds: Greater Sage-Grouse*, AUDUBON, https://www.audubon.org/field-guide/bird/greater-sage-grouse (last visited Sept. 12, 2019).

69 *See id.*

70 *See General Oil and Gas Leasing Instructions*, BUREAU OF LAND MGMT., https://www.blm.gov/programs/energy-and-minerals/oil-and-gas/leasing/general-leasing (last visited Sept. 12, 2019).

71 *See id.*

72 *See id.*

73 *See* Ellen Gilmer, *Critics on New Leasing Policy,* E&E NEWS (Feb. 2, 2018), https://www.eenews.net/stories/1060072713.

74 *See id.*

75 *See id.*

So this process has become complicated. The stated purpose of the new guidance was to simplify and streamline the leasing process to alleviate unnecessary impediments and burdens.[76] What do those burdens look like? You're looking at it. Me and the sage grouse, both. A federal case was brought and the court enjoined the guidance.[77] Now that would be two injunctions, at least so far, in this little overview. And if you read the opinion, we had some pretty snarky stuff going on here. The court says, the public involvement requirements of FLPMA, which is the Federal Land Policy and Management Act—this is the organic act that governs the BLM—and NEPA, the bedrock environmental law that requires public involvement and environmental review, can't be set aside in the name of expediting oil and gas sales.[78] The benefits of public involvement and the mechanism by which public involvement is obtained are not "unnecessary impediments and burdens."[79] So, we're really seeing the courts calling out the government on the fact that its arguments are not rational and meaningful. And like a lot of this administration's actions, we see these supposed economic arguments and they're really just a cloak for "we just want to make it easier to drill."

The last cases I wanted to highlight here—we don't have decisions on this litigation yet, so the snarkiness has not occurred, but I feel good about it. These cases arose out of the original review that was conducted pursuant to an executive order issued by President Trump, in which he asked Secretary of the Interior Ryan Zinke to review twenty-seven national monuments that were created by previous Presidents.[80] This is a place where we see new rationales again, and the review for the monuments were factors well beyond the Antiquities Act.[81] The Act directs Presidents to designate national monuments to protect antiquities.[82] Here we have Secretary

[76] *See* Memorandum from the Deputy Dir., Policy & Programs, Exercising Authority of the Dir. of the Bureau of Land Management to All Field Officials (Jan. 31, 2018).

[77] *See* W. Watersheds Project v. Zinke, 336 F. Supp. 3d 1204 (D. Idaho 2018).

[78] *See id*. at 1233.

[79] *See id*. at 1239.

[80] *See A List of the 27 National Monuments Under Review*, NAT'L PARKS CONSERVATION ASS'N (Dec. 4, 2017), https://www.npca.org/resources/3211-a-list-of-the-27-national-monuments-under-review.

[81] *See* Antiquities Act of 1906, 54 U.S.C. §§ 320301–03 (2012).

[82] *See id.*

Zinke being told to look at things like: Were they appropriately classified under the Act? Do they look at the right considerations of multiple use policy?[83] Well, of course they don't because they're Antiquities Act monuments. Do they have impacts on the available use of lands outside the boundaries? Do they impact concerns of state and local governments? Do they affect the availability of federal resources outside the boundaries? So directing a review that looks at all sorts of factors that have nothing to do with the designation of monuments and that courts historically, because we have seen the designation of monuments challenged over the years, have explicitly declined to consider.

We're now challenging the radical reductions of the Bears Ears National Monument by eighty-five percent and the Grand Staircase Escalante National Monument by about fifty percent in court, but the new proclamations that were issued by President Trump follow this kind of same pattern of the rationale.[84] You'll see that they both state that the new proclamations were issued because he's determined the appropriate protective area involves the examination of factors such as the uniqueness and nature of the objects, the nature of the needed protections, and the protection provided by other laws.[85] Again, none of these are factors that are supposed to be taken into account under the Antiquities Act or have ever been considered by courts.[86]

In the new Bears Ears proclamation, there's a whole section about how there wasn't a sufficient threat of damage or destruction to these objects.[87] We'll set aside the fact that the Bears Ears area had been subjected to repeated threats of destruction, including major arrests for looting and selling of artifacts to pothunters.[88] So even if we actually needed to meet the standard, it was met. But let's

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[83] *See* NAT'L PARKS CONSERVATION ASS'N, *supra* note 80.

[84] *See The Wilderness Society et al. v. Trump et al. (Grand Staircase-Escalante)*, NAT. RESOURCES DEF. COUNCIL, https://www.nrdc.org/court-battles/wilderness-society-et-v-trump-et-grand-staircase-escalante (last visited Aug. 29, 2019).

[85] *See* Proclamation 9861, 82 Fed. Reg. 58081 (Dec. 4, 2017).

[86] *See* Antiquities Act of 1906, 54 U.S.C. §§ 320301–03 (2012).

[87] *See* Proclamation 9861, 82 Fed. Reg. 58081.

[88] *See* Jenny Rowland-Shea, *Bears Ears Cultural Area: The Most Vulnerable U.S. Site for Looting, Vandalism, and Grave Robbing*, CTR. FOR AM. PROGRESS (June 13, 2016), https://www.americanprogress.org/issues/green/news/2016/06/13/139344/bears-ears-cultural-area-the-most-vulnerable-u-s-site-for-looting-vandalism-and-grave-robbing.

just set that aside, because that it is not the relevant requirement. The requirement is that the President has decided this area should be set aside for future generations.[89] We don't need to actually show that people are stealing the cultural resources or destroying the rock art.

Similarly, in the new Grand Staircase-Escalante proclamation, the proclamation talks about how some of these areas are already being managed by the Forest Service because they're roadless or by the BLM because they're under protection as wilderness study areas.[90] What that has to do with protecting some of the most amazing dinosaur fossils being found in the world is beyond me. And I don't think you need to actually be a paleontologist to know that might be a pretty unconvincing justification. And we do know the real economics at play here, because we've seen documents released, having to do with efforts to turn some of these lands over for leasing uranium, oil and gas, and coal.[91]

Overall, the opinions we have seen from the courts reinforce that we are seeing a lack of rationality and economic basis for this administration's actions, and I think we'll continue to see that.

REMARKS OF DAVID J. HAYES[***]

I have been looking forward to sharing my observations about how the federal government is addressing natural resources issues under President Trump. It is my pleasure to do so here at New York University, at a conference sponsored by Policy Integrity.[92] Policy Integrity has been playing a significant role in many of the natural resources issues that I am discussing here today. With the skillful guidance of Ricky Revesz, Jayni Hein, Bethany Davis-Noll, and

[89] *See* 54 U.S.C. §§ 320301–03.

[90] *See* Proclamation 9861, 82 Fed. Reg. 58081.

[91] *See* Brady McCombs, *Lands Stripped from Utah Monuments Open to Claims, Leases by Oil, Gas, Coal and Uranium Companies*, SALT LAKE TRIB. (Feb. 3, 2018), https://www.sltrib.com/news/environment/2018/02/03/lands-stripped-from-utah-monuments-open-to-claims-leases.

[***] David J. Hayes is the Executive Director of the State Energy & Environmental Impact Center at the New York University School of Law. He was the Deputy Secretary and Chief Operating Officer for the U.S. Department of the Interior for Presidents Obama and Clinton.

[92] *See Energy and Environmental Policy: The Quest for Rationality*, INST. FOR POLICY INTEGRITY, https://policyintegrity.org/news/event/energy-and-environmental-policy-the-quest-for-rationality3 (last visited Sept. 19, 2019).

their team, Policy Integrity's disciplined legal and economic analyses have slowed or halted several of the administration's most egregious efforts to roll back important natural resource protections.

I begin with an acknowledgement, reinforced by my personal experience as the former Deputy Secretary of the Department of the Interior, that conflicting economic, social, cultural, and environmental interests complicate how we choose to manage our nation's natural resources. For example, the law tells our nation's largest single landowner—the BLM—to manage its public lands for "multiple use" and "sustained yield," setting up inevitable conflicts among different types of public uses—such a conservation and recreation—and private uses—such as mineral extraction and grazing, while adhering to the BLM's overarching statutory obligation to "protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources and archeological values"[93] and to "take any action necessary to prevent unnecessary or undue degradation of [public] lands."[94]

In recent years, balancing natural resources interests has become even more challenging as a growing and spreading population puts new pressures on natural landscapes; an exploding oil and gas sector stresses rural land and water resources; and a changing climate upends water resource patterns, coastal infrastructure, ocean and inland fisheries, wildfire risks, and human health risk vectors.[95]

While previous administrations differed in how they struck a balance among competing resource interests, the Trump administration has moved in an entirely different direction that radically departs from American norms. Rather than acknowledging its responsibility to balance competing interests against a backdrop of fundamental protection and stewardship of our nation's natural resources, the Trump administration has set a natural resource hierarchy that establishes "energy dominance" as its overarching priority.[96] The administration has compounded the error of

[93] 43 U.S.C. §§ 1701(a)(7)–(8) (1976).

[94] *Id.* § 1732(b).

[95] For a comprehensive overview of the expected effects of climate change in the coming century, see INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE WORKING GRP. I, CLIMATE CHANGE 2013: THE PHYSICAL SCIENCE BASIS (2013), https://www.ipcc.ch/report/ar5/wg1.

[96] *See* Press Release, White House, President Donald J. Trump is Unleashing American Energy Dominance (May 14, 2019), https://www.whitehouse.gov/

elevating energy development as the first and arguably only priority for natural resource use by unabashedly favoring fossil fuel energy—and all of the adverse environmental externalities that go with coal, oil and gas development—over renewable, clean domestic energy.

President Trump set the tone for his unbalanced natural resources policy in his early Executive Order 13783, entitled "Promoting Energy Independence and Economic Growth."[97] The executive order calls for more aggressive expansion of "our Nation's vast energy resources"[98] and the "immediate review of all agency actions that potentially burden the safe, efficient development of domestic energy resources."[99]

Interior Secretary Zinke and Deputy Secretary David Bernhardt followed up the President's executive order with Secretarial Orders 3349[100] and 3360[101] which, in the name of "American Energy Independence," directed the Department to "identify agency actions that unnecessarily burden the development or utilization of the Nation's energy resources and support action to . . . suspend, revise, or rescind such agency actions as soon as practicable."[102]

These actions spawned a self-described "energy dominance" agenda that discards any pretense of a balanced natural resources policy and, instead, pursues a no-holds-barred expansion of fossil fuel energy development on public lands—whether the industry, or the American people, want it or not.

The Trump administration has aggressively pursued its energy dominance agenda by simultaneously pushing initiatives in three major areas: (1) opening up more lands and offshore waters to fossil fuel exploration and development; (2) shorting public planning and environmental reviews for fossil fuel projects on public lands; and

briefings-statements/president-donald-j-trump-unleashing-american-energy-dominance.

97 *See* Exec. Order No. 13783, 82 Fed. Reg. 16093 (Mar. 31, 2017).

98 *Id.* § 1(a).

99 *Id.* § 2.

100 *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3349: AMERICAN ENERGY INDEPENDENCE (2017), https://www.doi.gov/sites/doi.gov/files/uploads/so_3349_-american_energy_independence.pdf.

101 *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3360: RESCINDING AUTHORITIES INCONSISTENT WITH THE SECRETARY'S ORDER (2017), https://www.eenews.net/assets/2018/01/05/document_gw_04.pdf.

102 U.S. DEP'T OF THE INTERIOR, *supra* note 100, § 3.

(3) seeking to reduce private companies' costs by removing or watering down fiscal and environmental obligations associated with mining and drilling activities on public lands. I will tick through each of the initiatives to illustrate the vigor with which Interior is pushing its fossil fuel energy development agenda over countervailing interests.

1. *Opening Up More Lands for Fossil Fuel Development*

As one of its first moves, the Interior Department lifted the moratorium on coal leasing that former Secretary Jewell had put in place pending completion of a long-delayed programmatic environmental impact review of the federal coal program. State attorneys general challenged Interior's decision to lift the moratorium without undertaking any environmental review under NEPA, and the U.S. District Court in Montana agreed that the administration's failure to complete an environmental review violated NEPA.[103]

Secretary Zinke proposed to open up nearly the entirety of offshore waters to oil and gas drilling—with the exception of Florida, in response to a request from its Republican governor. State attorneys general have vowed to fight opening up new areas for offshore drilling.[104]

The Department enthusiastically supported, and is now implementing, plans to drill for oil and gas in the iconic Arctic National Wildlife Refuge.[105] It also has initiated hearings and an environmental review process aimed at expanding oil and gas leasing in the National Petroleum Reserve-Alaska, including in the environmentally pristine and sensitive Teshekpuk Lake area.[106]

Interior's political leadership has shredded a historic, bipartisan, science-based and industry-approved agreement to

[103] *See Coal on Public Lands,* STATE ENERGY & ENVT'L IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/public-lands/coal-on-public-lands (last visited Oct. 21, 2019).

[104] *See Five-Year Oil and Gas Leasing Plan*, STATE ENERGY & ENVT'L IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/oceans-and-water-policy/five-year-oil-and-gas-leasing-plan (last visited July 28, 2019).

[105] *See* Henry Fountain & Steve Eder, *In the Blink of an Eye, a Hunt for Oil Threatens Pristine Alaska*, N.Y. TIMES (Dec. 3, 2018), https://www.nytimes.com/2018/12/03/us/oil-drilling-arctic-national-wildlife-refuge.html.

[106] *See* Christopher Solomon, *America's Wildest Place is Open for Business*, N.Y. TIMES, https://www.nytimes.com/interactive/2017/11/10/opinion/sunday/wildest-place-in-america.html (last visited Sept. 19, 2019).

protect several million acres of sensitive public lands from oil and gas development to accommodate needed wildlife protections for the greater sage grouse and associated species, thereby exposing vitally important conservation lands to fossil fuel development and needlessly triggering a drawn-out fight under the Endangered Species Act.[107]

2. *Shortening Public Participation and Environmental Reviews*

Deputy Secretary Bernhardt issued Secretarial Order 3355 to remove "the impediments to efficient development of public and private projects that can be created by needlessly complex NEPA analysis."[108] Directives included targeting the completion of final EIS within one year and setting a default page limit of 150 pages for EISs for major projects.[109]

Interior has issued new guidelines that shorten or, in some cases, bar public participation in oil and gas permitting decisions so as to facilitate quick approval of oil and gas leases without accountability. For example, Interior eliminated the "master leasing plan" program that facilitated public input and environmental review of potential oil and gas leasing on public lands that were near national parks or otherwise implicated competing cultural, recreational, or conservation interests.[110]

3. *Reducing Regulatory "Burdens" on Coal and Oil & Gas*

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[107] *See* Coral Davenport, *Trump Administration Loosens Sage Grouse Protections, Benefiting Oil Companies*, N.Y. TIMES (Dec. 6, 2018), https://www.nytimes.com/2019/03/15/climate/trump-sage-grouse.html.

[108] U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3355: STREAMLINING NATIONAL ENVIRONMENTAL POLICY ACT REVIEWS AND IMPLEMENTATION OF EXECUTIVE ORDER 13807: "ESTABLISHING DISCIPLINE AND ACCOUNTABILITY IN THE ENVIRONMENTAL REVIEW AND PERMITTING PROCESS FOR INFRASTRUCTURE PROJECTS" (2017).

[109] *See id*.

[110] *See* Imari Walker Karega, *BLM Order 2018-034: Updating Oil and Gas Leasing Reform—Land Use Planning and Lease Parcel Reviews*, DUKE SCI. POL. (June 4, 2018), https://scipol.duke.edu/track/updating-oil-and-gas-leasing-reform-%E2%80%93-land-use-planning-and-lease-parcel-reviews/blm-order; Scott Streater, *Key Obama-Era Leasing Reform to Get the Ax,* E&E NEWS (Oct. 27, 2017), https://www.eenews.net/stories/1060064921; *see also* Dep't of the Interior, Instruction Memorandum IM 2018-034 (Jan. 31, 2018), https://www.blm.gov/policy/im-2018-034 (eliminating "MLPs"). *See generally The Short Life of the BLM's Master Leasing Plans*, BILL LANE CTR. FOR AM. W.: THE W. BLOG, https://west.stanford.edu/news/blogs/and-the-west-blog/2018/master-leasing-plans.

Production on Public Lands

Interior also has been aggressively attempting to roll back basic fiscal and environmental responsibilities that coal, oil and gas companies have when operating on public lands—in the name of reducing "unnecessary burdens" that diminish American energy dominance.[111] The highest profile rollbacks share the common characteristic of ignoring or downplaying governmental interests in ensuring that private companies pay fair value for valuable minerals that they extract from public lands, and that they conduct their activities in an environmentally sound way.[112] They represent an abdication of the federal government's obligation to manage our public lands responsibly on behalf of the American people. Three rulemakings illustrate the point.

When the Bureau of Reclamation developed its rules governing oil and gas activities in the 1980s, hydraulic fracturing technology was in its infancy. Today, BLM estimates that more than ninety percent of the nearly 100,000 oil and gas wells operating on public lands are engaged in hydraulic fracturing activities.[113]

Hydraulic fracturing activities carry with them a variety of environmental risks that relate, in particular, to the use of chemicals in hydraulic fracturing operations, the potential contamination of groundwater from poorly-constructed hydraulic fracturing wells, and the unsafe management and disposal of large volumes of contaminated "produced water" that flow back to the surface during hydraulic fracturing activities.[114]

The Obama administration acknowledged that its outdated oil and gas drilling rules needed to address new risks associated with hydraulic fracturing activities. Accordingly, it launched an extended public rulemaking that ultimately produced a final rule that laid out

[111] *See* Press Release, U.S. Dep't of the Interior, Interior Department Finalizes New Waste Prevention Rule (Sep. 18, 2018), https://www.doi.gov/pressreleases/interior-department-finalizes-new-waste-prevention-rule.

[112] *See* discussion of Hydraulic Fracturing Rules, Royalty Reforms, and Methane Waste Prevention Rule, *infra*.

[113] *See* Press Release, Dep't of the Interior, Bureau of Land Mgmt., BLM Rescinds Rule on Hydraulic Fracturing (Dec. 28, 2017), https://www.blm.gov/press-release/blm-rescinds-rule-hydraulic-fracturing.

[114] *See generally* EPA, HYDRAULIC FRACTURING FOR OIL AND GAS: IMPACTS FROM THE HYDRAULIC FRACTURING WATER CYCLE ON DRINKING WATER RESOURCES IN THE UNITED STATES EXECUTIVE SUMMARY 20, 24, 31 (2016) https://www.epa.gov/sites/production/files/2016-12/documents/hfdwa_executive_summary.pdf.

common sense, uniform standards for conducting oil and gas hydraulic fracturing operations on public lands.[115]

The Trump administration, with the active support of the oil and gas industry, has worked to nullify Interior's hydraulic fracturing rules and return to the status quo ante—namely, the absence of any federal regulations governing hydraulic fracturing-related oil and gas drilling activities on public lands—despite the ubiquitous nature of the practice, and the clear risks that it poses to health and the environment.[116]

State attorneys general have filed suit against the administration's rescission of the hydraulic fracturing rule, based on the rule's lack of a reasoned basis for abandoning the prior rule, and its inconsistency with Interior's statutory obligations. Time will tell how the courts will treat Interior's "never mind" approach to this serious issue.[117]

Several years ago, the General Accountability Office and the Department of the Interior Inspector General blew the whistle on a deceptive practice that fossil fuel companies were utilizing to avoid paying royalties due to the federal government.[118] The watchdogs noted that coal companies, in particular, were basing their royalty calculations on "sales" of coal to corporate affiliates at below-market prices.[119] The affiliates then typically would enter into subsequent, arms-length transactions with buyers at a higher, market-based price point, thereby enabling the coal company to avoid paying the full royalty amount due to the federal government.[120]

The Obama administration addressed this glaring need for reform by promulgating a "valuation" rule that explicitly outlawed the use of affiliate transactions as the basis for determining royalty

115 *See* 43 C.F.R. § 3160 (2018).

116 *See* Eric Lipton & Hiroko Tabuchi, *Driven by Trump Policy Changes, Fracking Booms on Public Lands*, N.Y. TIMES (Oct. 27, 2018), https://www.nytimes.com/2018/10/27/climate/trump-fracking-drilling-oil-gas.html.

117 *See Fracking*, STATE ENERGY & ENVTL. IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/public-lands/fracking (last visited Sept. 19, 2019).

118 *See* U.S. GOV'T ACCOUNTABILITY OFF., GAO-14-140, COAL LEASING: BLM COULD ENHANCE APPRAISAL PROCESS, MORE EXPLICITLY CONSIDER COAL EXPORTS, AND PROVIDE MORE PUBLIC INFORMATION (2013), https://www.gao.gov/assets/660/659801.pdf.

119 *See id.*

120 *See id.*

payments. Instead, it required that arms-length transactions and, in certain cases, prices gleaned from commodity market information, should be used to calculate royalty obligations.[121]

The Trump administration attacked this good government reform as an apparent affront to energy domination,[122] inferring that the federal government should acquiesce in disreputable practices that cheated the U.S. government—and, derivatively, American taxpayers—from funds owed by fossil fuel companies to the U.S. Treasury. After unsuccessfully attempting to put the valuation reform rule on hold, Interior published a proposed rule to repeal the rule "in its entirety."[123]

After completing a perfunctory comment period, Interior finalized its nullification of the valuation reform rule, keeping in place the abusive practice that enabled coal and oil and gas companies to deceive the federal government and avoid making royalty payments.[124] State attorneys general who had fought the delay filed suit on the final rule.[125] Policy Integrity filed an effective amicus brief supporting the state attorneys general's challenge.[126]

In March 2019, the federal district court in California sided with the attorneys general in finding that the Office of Natural Resources Revenue (ONRR) violated the APA in repealing the valuation rule.[127] ONRR had not provided an adequate,

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[121] *See* Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform, 81 Fed. Reg. 43,338 (July 1, 2016) (to be codified at 30 C.F.R. pts. 1202, 1206); *See* Press Release, Dep't of the Interior, Interior Department Announces Initial Steps to Strengthen Federal Energy Valuation Rules, Expand Guidance on Federal Coal Program (Dec. 19, 2014), https://www.doi.gov/news/pressreleases/interior-department-announces-initial-steps-to-strengthen-federal-energy-valuation-rules-expand-guidance-on-federal-coal-program.

[122] *See* Exec. Order No. 13783, 82 Fed. Reg. 16093 (Mar. 31, 2017).

[123] U.S. Dep't of the Interior, Repeal of Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform, 82 Fed. Reg. 16,323 (Apr. 4, 2017).

[124] U.S. Dep't of the Interior, Repeal of Consolidated Federal Oil & Gas and Federal & Indian Coal Valuation Reform, 82 Fed. Reg. 36,934 (Aug. 7, 2017).

[125] *See Coal on Public Lands*, STATE ENERGY & ENVTL. IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/public-lands/coal-on-public-lands, (last visited Sept. 19, 2019).

[126] *See* Brief for Institute for Policy Integrity as Amicus Curiae Supporting Plaintiffs, California v. Dep't of the Interior, No. 17-cv-05948-SBA (N.D. Cal. June 25, 2018).

[127] *See* Order Re Cross-Motions for Summary Judgment, California v. Dep't of the Interior, No. C 17-5948 SBA (N.D. Cal. Mar. 29, 2019), https://www.eenews.net/assets/2019/04/15/document_ew_01.pdf

reasoned explanation for disregarding the facts and circumstances that supported the 2016 issuance of the valuation rule, and the court vacated the August 2017 repeal rule.[128]

Interior's advocacy on behalf of oil and gas companies over the public interest also is reflected in the Department's virulent attack on the Obama administration's methane waste reduction rule, also known as the "venting and flaring" rule.[129] The rule, which was finalized in November 2016, was prompted by oil and gas lessees who vent or burn off (flare) large quantities of unwanted methane (natural gas) that impede the co-production of oil supplies.[130] The practice is widespread due to the relatively low value of natural gas and the limited availability of gas pipeline infrastructure in certain oil and gas regions.

The upshot of the practice is the waste of valuable, publicly owned natural resources, and the avoidance of royalty payments associated with the extraction of those resources, in contravention of the Minerals Leasing Act.[131] The large quantity of methane losses also poses adverse health effects and climate pollution concerns, given that methane is a powerful greenhouse gas.[132]

As with the royalty reform rule, the administration launched unsuccessful efforts to unilaterally put off compliance with the final rule, followed by promulgation of a notice-and-comment "suspension rule" that would have had a similar effect.[133] State attorneys general challenged both actions, and the District Court in

[128] *See id. See generally, Coal on Public Lands,* STATE ENERGY & ENVTL. IMPACT CTR., https://www.law.nyu.edu/centers/state-impact/issues/public-lands/coal-on-public-lands (last visited Oct. 30, 2019).

[129] *See* 83 Fed. Reg. 49,184, (Sept. 28, 2018) (to be codified at 43 CFR pt. 3160, 3170).

[130] *See id.* at 49,185.

[131] *See* 30 U.S.C. §§ 225, 226(b),(c) (2012).

[132] *See* Eric Lipton, *Profiting, at a Cost*, N.Y. TIMES (Dec. 27, 2018), https://www.nytimes.com/interactive/2018/12/26/us/politics/donald-trump-environmental-regulation.html (discussing health problems related to burning and venting of methane on the Fort Berthold Indian Reservation).

[133] *See Methane Waste Prevention Rule*, STATE ENERGY & ENVTL. IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/public-lands/methane-waste-prevention-rule (last visited Sept. 19, 2019) (explaining that earlier, the administration attempted to nullify the BLM waste prevention rule via a Congressional Review Act resolution that passed in the U.S. House of Representatives in May 2017, but narrowly failed in the U.S. Senate).

the Northern District of California struck down both administrative gambits as violative of the APA.[134]

Following its losses in the courts, BLM finally proposed a replacement rule that greatly scaled back restrictions on methane venting and flaring.[135] Last fall, BLM finalized the rule and it was immediately challenged by state attorneys general.[136]

It will be interesting to see how reviewing courts address the rollback of the waste prevention rule. As with many of its rollbacks, Interior emphasizes the cost to industry as the primary basis for excusing compliance with common sense restrictions on wasting valuable public resources. As state attorneys general have noted, Interior's analysis of industry costs is inflated, particularly in light of the commitments that many companies are undertaking voluntarily to reduce harmful methane emissions, its companion analysis of foregone societal benefits is poorly supported.[137]

The disastrous Gulf Oil Spill occurred during my tenure as Deputy Secretary of the Department of the Interior.[138] I was the first administration official on the scene in the Gulf of Mexico on the morning of April 21, 2010 and, in the months that followed, Secretary Salazar and I put together a regulatory response plan that simultaneously focused on stopping the leak, and reforming the deep water oil and gas regulatory system that had clearly failed to meet basic safety expectations.[139] The Department worked closely with the President's Deepwater Horizon Oil Spill Commission, the oil and gas industry, and outside experts to promulgate new safety rules that have materially improved offshore drilling safety, while addressing the root causes of the Deepwater Horizon oil spill.[140]

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134 *See id.*

135 *See* Press Release, Bureau of Land Mgmt., BLM Offers Revision to Methane Waste Prevention Rule (Feb. 12, 2018), https://www.blm.gov/press-release/blm-offers-revision-methane-waste-prevention-rule.

136 *See* Complaint at 1-2, California v. Zinke, No. 3:18-cv-05712 (N.D. Cal. Sept. 18, 2018).

137 *See* State Plaintiffs' Notice of Motion and Motion for Summary Judgment; Memorandum in Support, California v. Bernhardt, No. 4:18-cv-05712-YGR (N.D. Cal. June 7, 2019).

138 *See generally Gulf Oil Spill*, SMITHSONIAN OCEAN, https://ocean.si.edu/conservation/pollution/gulf-oil-spill (last visited Nov. 16, 2019).

139 *See id*.

140 *See* David J. Hayes, *Beyond the Movie: Deepwater Horizon Redux*, HUFFPOST (Oct. 04, 2016), https://www.huffingtonpost.com/entry/beyond-the-movie-deepwater-horizonredux_us_57f2a2dbe4b0c2407cdf2508.

Remarkably, the Trump administration has completed rulemakings that undercut even these high profile, and clearly needed, safety improvements.[141] In particular, key safety reforms included in the Interior's Bureau of Safety and Environmental Enforcement's (BSEE's) original well control rule, promulgated in 2016, were repealed in a revised rule that was finalized in May 2019, as laid out in a Complaint filed by a coalition of environmental groups in the Northern District of California:

> [The 2019 final rule] weaken[ed] standards related to real-time monitoring, blowout preventer functionality, inspection and testing of safety equipment, and maintenance of safe drilling margins. [It] also eliminate[d] much of the new regulatory oversight that had been added under the 2016 Well Control Rule, instead giving industry more leeway to police itself. In addition, some of the repeals and revisions were not proposed in the proposed rule, including changes to the safe drilling margin requirements, real-time monitoring standards, blowout preventer requirements on floating platforms, and blowout preventer testing intervals.[142]

The sole justification for these rollbacks was to eliminate "unnecessary burdens on stakeholders."[143] Little or no explanation was provided for why BSEE "disregarded its previous factual findings from the 2016 Well Control Rule," nor was there an attempt "to meaningfully respond to concerns raised . . . in comments" on the proposed rollback rule.[144]

The Trump administration also has been attentive to requests by oil and gas companies to loosen the administration and enforcement of laws that protect wildlife. As referenced above,[145] Interior dramatically scaled back a historical conservation agreement that protected 10.7 million acres of sensitive western habitat for the greater sage grouse—a species in severe decline and in danger of being listed as threatened or endangered under the

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[141] *See Offshore Drilling Regulations*, STATE ENERGY & ENVTL. IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/oceans-and-water-policy/offshore-drilling-regulations (last visited Sept. 14, 2019); *see also* 84 Fed. Reg. 21,908, 21,908, 21,910 (May 15, 2019) (to be codified at 30 CFR pt. 250).

[142] *See* Complaint at 25–29, Sierra Club v. Angelle, No. 3:19-cv-03263 (N.D. Cal. June 11, 2019), https://www.nrdc.org/sites/default/files/complaint-weakening-offshore-drilling-safety-protections-20190611.pdf.

[143] 84 Fed Reg 21,908.

[144] Complaint, *supra* note 142, at 26–36.

[145] *See* Davenport, *supra* note 107.

Endangered Species Act.[146] The oil and gas industry cheered the replacement plan, which reduced protection areas by approximately eighty percent to only 1.8 million acres.[147] In October 2019, the U.S. District Court in Idaho enjoined the BLM from implementing its revisions of the sage grouse plan, based on the Department's failure to adequately to explain or justify its changes, and its failure to analyze their potential environmental impacts under NEPA.[148]

Similarly, oil and gas interests have complained that they can be liable under the 100-year old Migratory Bird Treaty Act for the death of migratory birds that alight in oil-contaminated pits or that die in oil spills.[149] The attentive Trump administration responded by issuing a Solicitor's opinion that purports to nullify operation of the Migratory Bird Treaty Act's strict liability provisions.[150] State attorneys general, the Audubon Society, and other conservation groups have filed suit.[151]

Even more troubling is Interior's launch of a rulemaking that could undermine Endangered Species Act protections in a number of ways, including by attempting to inject economic analysis into listing decisions, despite the statute's clear prohibition on doing so.[152] "The proposals also attempt to establish a regulatory precedent that would effectively prohibit species impacted by climate change from gaining protections by prohibiting FWS and

146 *See id*.

147 *See id.*

148 *See* W. Watersheds Project v. Zinke, 336 F. Supp. 3d 1204 (D. Idaho 2018).

149 *See* David J. Hayes & Lynn Scarlett, Opinion, *A Free Pass to Kill Migratory Birds*, N.Y. TIMES (June 7, 2018), https://www.nytimes.com/2018/06/07/opinion/a-free-pass-to-kill-migratory-birds.html.

150 *See id.*

151 *See Migratory Bird Treaty Act*, STATE ENERGY & ENVTL. IMPACT CTR. (last visited Sept. 17, 2019), http://www.law.nyu.edu/centers/state-impact/issues/wildlife/migratory-bird-treaty-act; Press Release, Audubon Soc'y, Audubon Lawsuit Seeks to Restore Protections for Migratory Birds (May 24, 2018), https://www.audubon.org/news/audubon-lawsuit-seeks-restore-protections-migratory-birds.

152 *See* Stephen Lee, *Broad Changes to Endangered Species Protections Could Be Coming*, BLOOMBERG ENV'T (May 25, 2019), https://news.bloombergenvironment.com/environment-and-energy/broad-changes-to-endangered-species-protections-could-be-coming.

NMFS from considering whether a changing climate is threatening the continued existence of certain species."[153]

At the same time that Interior has engaged in a single-minded push for "energy dominance," it has virtually abandoned its countervailing stewardship responsibilities. As noted above, its treatment of fiscal and environmental rules as "burdens" that should be lifted—rather than basic corporate responsibilities that flow from the privilege of operating on public lands—illustrates the point.[154]

In addition, Interior has embraced the administration's head-in-the-sand, anti-science approach to climate change—despite the enormous, direct impact that climate change is having on the natural resources that Interior is obligated to responsibly manage.[155] For example, Secretarial Order 3360, referenced above, rescinded the climate change chapter of Interior's manual, removing Interior's policy commitment to "adapt to the challenges posed by climate change to its mission, programs, operations, and personnel [and to] use the best available science to increase understanding of climate change impacts, inform decision-making, and coordinate an appropriate response to impacts on land, water, wildlife, cultural and tribal resources, and other assets."[156]

Other federal agencies also are giving short shrift to climate change-related considerations that should be playing a material role in many natural resource management decisions.[157]

As dictated in President Trump's Executive Order 13783, for example, the White House Council on Environmental Quality withdrew its guidance on how agencies should take climate impacts

[153] *Endangered Species Act*, STATE ENERGY & ENVTL. IMPACT CTR., http://www.law.nyu.edu/centers/state-impact/issues/wildlife/endangered-species-act (last visited Sept. 17, 2019).

[154] *See* discussion *supra*.

[155] *See, e.g.*, Rebecca Beitsch, *Trump Interior Chief Says Climate Change Response Falls on Congress*, HILL (May 7, 2019), https://thehill.com/policy/energy-environment/442605-interior-secretary-says-climate-change-response-falls-on-congress.

[156] U.S. DEP'T OF THE INTERIOR, *supra* note 101; *see also* Elizabeth Shogren, *Interior Revokes Climate Change and Mitigation Polices*, HIGH COUNTRY NEWS (Jan. 4, 2018), https://www.hcn.org/articles/climate-change-interior-department-revokes-climate-change-and-mitigation-policies.

[157] *See* Press Release, Ctr. for Biological Diversity, Trump Administration Guts Climate Change Reviews for Federal Actions (June 21, 2019), https://biologicaldiversity.org/w/news/press-releases/trump-administration-guts-climate-change-reviews-federal-actions-2019-06-21.

into account when preparing environmental impact reviews for federally-connected projects and alternatives under NEPA.[158]

Withdrawing White House guidance, however, does not absolve the federal government from addressing climate change in environmental reviews required by NEPA. As the District of Columbia Circuit Court ruled in *Sierra Club v. Federal Energy Regulatory Commission* (the "Sabal Trail" decision), for example, the Federal Energy Regulatory Commission (FERC) cannot comply with NEPA and make a sound "public convenience and necessity" determination for a pipeline project without evaluating foreseeable direct and indirect greenhouse gas emissions associated with the project—including downstream emissions associated with the handling and combustion of gas by pipeline recipients.[159] Other courts have made the same point that NEPA requires the disclosure and analysis of direct, indirect, and cumulative climate-related environmental issues in environmental impact statements prepared for federal decisionmakers.[160]

And yet administration appointees continue to skirt—and even flout—the law. For example, the D.C. Circuit is now reviewing a case from upstate New York (*Otsego 2000*) in which FERC thumbed its nose at the Sabal Trail decision by concluding that it need not evaluate upstream or downstream greenhouse gas emissions associated with a pipeline improvement project.[161] As part of its decision, the Commission announced a new, FERC-wide NEPA policy that perpetuates this misreading of the law, without providing any opportunity for input, and despite an ongoing review of the same issue in another docket.[162]

Thankfully, state attorneys general continue to ask courts to step in and require the administration to comply with its legal obligations. In this case, a coalition of seven attorneys general, led by former New York Attorney General Barbara Underwood, filed

158 *See* Exec. Order No. 13783, 82 Fed. Reg. 16,093, 16,094 (Mar. 31, 2017).

159 *See* Sierra Club v. Fed. Energy Regulatory Comm'n, 867 F.3d 1357, 1374 (D.C. Cir. 2017).

160 *See, e.g.*, San Juan Citizens All. v. Bureau of Land Mgmt., 326 F. Supp. 3d 1227, 1242–43 (D.N.M. 2018) (collecting cases).

161 *See* Otsego 2000 v. Fed. Energy Regulatory Comm'n, 767 F. App'x 19, 21 (D.C. Cir. 2019).

162 *See Pre-Filing Environmental Review Process*, FED. ENERGY REGULATORY COMM'N, https://www.ferc.gov/resources/processes/flow/lng-1-text.asp (last visited Sept. 17, 2019).

an amicus brief last week challenging FERC's unlawful attempt to avoid its NEPA obligations.[163]

The Trump administration is upending decades of balanced stewardship of our nation's natural resources by bending environmental and public health-related legal obligations to favor the fossil fuel industry's interests and the administration's quest for "energy dominance."[164]

Thankfully, state attorneys general, prominent NGOs and think tanks including Policy Integrity are in the courts and in the public square, demanding that our government return to managing our natural resources for the benefit of all Americans, rather than for special interests' short-term gains. Our nation's collective stakes in the fight could not be higher.

REMARKS OF BRENDA MALLORY[****]

Good afternoon. It's a pleasure to be here. Let me thank Jayni and Ricky both for the invitation to be part of this program. It's been thought-provoking sitting here and hearing the other panelists this morning. I also want to congratulate Policy Integrity on its ten-year anniversary. I know personally of the Policy Integrity's work and have both enjoyed and found it invaluable. Nevertheless, hearing others regale its accomplishments was inspiring. Thank you for what you do, particularly right now, when the focus on rationality and environmental and economic approaches to rulemaking are even more important.

In fact, it's almost comical to be discussing this administration's emerging public lands policy under the heading "Quest for Rationality." The administration's activities have seemed like much more of a grudge match than a rational approach to public lands policy. As we get further into the first term, the driving force

[163] *See* Brief for New York et al. as Amici Curiae Supporting Petitioners, *Ostego 2000*, 767 F. App'x 19 (No. 18-1188), https://ag.ny.gov/sites/default/files/2018_12_03_otsego_2000_amicus_brief_as_filed.pdf.

[164] *See* Press Release, *supra* note 96.

[****] Brenda Mallory is the Executive Director and Senior Counsel for the Conservation Litigation Project, an effort created to protect environmental and conservation values on public lands through strategic collaboration with academics, pro bono counsel, and environmental organizations. Brenda served as the General Counsel of the White House Council on Environmental Quality during the Obama administration and served in senior leadership roles at the Environmental Protection Agency.

has expanded from simply getting rid of the things that President Obama or the Obama administration did, to purging policies that have been important in public lands management for decades. Let me read a quote from an article that George Washington University Law Professor Rob Glicksman wrote. It captures my sense of what's happening in the public lands world:

> The Trump agenda seeks more than just to return to the pre-1960 regime, and it goes beyond trying to wipe out reforms of the New Deal and the Progressive era. The administration's touchstone for public land management hearkens back to 1872. That was the year Congress passed the General Mining Law, which made minerals such as gold and copper and the title to the land containing them, available to anyone basically for free. The law epitomized an era in which disposition of federal lands and resources was the predominant goal, and in which lands that were retained were to be milked dry of extractable commodities. The Trump approach is a radical rejection of virtually every reform of public land law in the last hundred years.[165]

Unlike modern environmental laws, which came into being along with reforms that increased public participation and emphasized data-based decisionmaking, public lands law has been evolving for well over a century.[166] The administration is reviving practices from earlier decades where there was an assumption that mineral resources should be extracted from the land, companies and other regulated entities received preferred access to planning and decisionmaking processes, and careful analysis of impacts was undervalued. Under the banner of "streamlining" or "energy dominance," many policy approaches designed to ensure data driven decisions and more inclusive decisionmaking processes have been eliminated.[167]

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[165] Robert Glicksman, Opinion, *Trump's Policies Blasting at the Foundations of Conservation in Public Land Law*, HILL (July 17, 2018), https://thehill.com/opinion/energy-environment/397282-trumps-policies-blasting-at-the-foundations-of-conservation-in.

[166] *See, e.g.*, Marla Mansfield, *A Primer of Public Land and Law*, 68 WASH. L. REV. 801 (1993) (as a primer on the development of public and law), https://digitalcommons.law.utulsa.edu/cgi/viewcontent.cgi?article=1025&context=fac_pub.

[167] *See, e.g.*, Press Release, U.S. Dep't of the Interior, Department of the Interior Releases Energy Burdens Report (Oct. 25, 2017), https://www.doi.gov/pressreleases/department-interior-releases-energy-burdens-report; *see also* Memorandum from the Deputy Dir., Policy & Programs, Exercising Authority of the Dir. of the Bureau of Land Management, to All Field Officials (Jan. 31, 2018).

The administration, however, does not share the view Glicksman describes. A press release from Interior in the summer of 2018, touting President Trump's 500 days, notes that public lands are once again available for use.[168] The notion that public lands are for "use" underscores the administration's thinking about public lands management. There is a heavy emphasis on the economic value that can be offered through the public lands, and on traditional uses like hunting, ranching, and grazing activities. In contrast, there is less focus on the notion that some areas are so special or unique that the appropriate management is conservation or preservation.

What the administration reflects in its narrative is a belief that things have really shifted too far away from initial notions of what was appropriate public lands management. Some describe this as simply responding to the greed of industry and other supportive allies who benefit from use of public lands. While surely in the mix, there are also fundamental differences in the philosophical view of how public lands resources should be managed and what their value to society is. The tension in views about use versus conservation of public lands often undergirds specific policy disagreements. The Secretary of the Interior has broad discretion in the management of public lands and in balancing the various interests and targets for protection reflected in the various statutory mandates.[169] Unlike environmental programs and related statutes, such as the Clean Air Act, the Secretary is not limited by explicit criteria to the same degree as Administrators of EPA and other agencies.[170] Thus, once this administration can discipline itself to follow the appropriate process, it will be able to accomplish a lot in changing public lands management and the regulatory process that governs. That is concerning to me and should be to those wanting environmentally protective approaches to public lands management to be given more importance, but this is the reality.

I have one visual I want to share. It is entitled, "Managing Public Lands for Energy Dominance," and identifies a number of the major actions that have been taken by Congress, the President,

168 *See* Press Release, U.S. Dep't of the Interior, Interior Celebrates 500 Days of American Greatness Under President Trump (June 5, 2018), https://www.doi.gov/pressreleases/interior-celebrates-500-days-american-greatness-under-president-trump.

169 *See* 16 U.S.C. § 835c (2012).

170 *Compare id.* (duties of Secretary of the Interior), *with* 33 U.S.C. § 1344 (2012) (Clean Water Act describing Secretary's responsibilities).

and Interior to alter public lands policy.[171] This administration came in with the focus on energy dominance. Using all of the tools available and with the benefit of both houses of Congress and the presidency, the administration has been able to make a broad range of changes that are designed to shift the direction and the way that we approach public lands management. With over thirty actions listed[172] on my visual, I will only touch on a few examples of executive branch actions. But before I turn to those, I want to mention the Congressional Review Act (CRA)[173] activities. We are at a conference focused on the quest for rationality in policymaking and I can't help but note that the CRA is the antithesis of that.

The CRA is a statute that requires Congressional review of certain agency rules when they are issued and authorizes Congress to essentially revoke the rule with a majority of both Houses and the President's signature. The statute had not been successfully used very much before the Trump administration came on board with both houses of Congress on its side. Now the administration has used it at least fifteen times to eliminate regulations that were done in the latter part of the Obama administration. Three of those were relevant to Interior: the BLM Planning Rule,[174] the Stream Protection Rule,[175] and a rule addressing Alaska wildlife refuge management.[176] With no hearings, minimal process, no required

171 *See* Brenda Mallory, Exec. Dir. & Senior Counsel for the Conservation Litig. Project, Remarks at the Institute for Policy Integrity Symposium on Energy and Environmental Policy: The Quest for Rationality (Sept. 18, 2018) (referencing slide titled Managing Public Lands for Energy Dominance).

172 *See id.* The visual references, among other things, presidential actions on infrastructure, regulatory reform, energy independence, monuments review, and streamlining; it included secretarial orders on toxic ammunition, restarting the coal program, climate change, mitigation, and energy burdens, and streamlining; it listed rulemakings on hydraulic fracturing, BLM methane, and NEPA and ESA amendments; and it provided examples of planning documents and Solicitor Opinions.

173 *See* 5 U.S.C. § 801 (2012).

174 *See President Trump Signs Measure Repealing BLM Planning 2.0 Rule*, *Republican News*, U.S. SENATE COMM. ON ENERGY & NAT. RES. (Mar. 27 2017), https://www.energy.senate.gov/public/index.cfm/2017/3/president-trump-signs-bill-repealing-blm-planning-2-0-rule.

175 *See* Congressional Nullification of the Stream Protection Rule Under the Congressional Review Act, 82 Fed. Reg. 54924 (Nov. 17, 2017).

176 *See* Effectuating Congressional Nullification of the Non-Subsistence Take of Wildlife, and Public Participation and Closure Procedures, on National Wildlife Refuges in Alaska Under the Congressional Review Act, 82 Fed. Reg. 52,009, 52,011 (Nov. 9, 2017).

justification, and a simple majority of both Houses, the CRA allows Congress to wipe out the product of years of study, public process, and stakeholder engagement. It undermines all of the elements of rational decisionmaking.

With the Stream Protection Rule, as an example, the Obama administration spent seven years on that rule, including studies, analysis, and significant process.[177] Yet, through the CRA mechanism, the outcome of that effort was cast aside. Once a rule is eliminated through the Congressional review process, the agency can't issue another regulation that's substantially similar without congressional approval. There have now been a number of calls for the reform or elimination of the CRA precisely because of the harmful consequences to rational policymaking.[178]

Moving to some of the other items referenced on the illustration. President Trump issued numerous executive orders rescinding President Obama's orders and directing Interior to review and revise specific policies. Interior issued rules delaying or suspending rules relating to hydraulic fracturing, methane emissions, and royalty rates. Interior has launched changes to multiple resource management plans: sage grouse plans are an example that has received considerable attention because they involve approximately 186 million acres covering parts of eleven states, and the 2015 plans, which are the focus of the attack, were the result of an unprecedented, bi-partisan, federal, state, and local collaboration over many years.[179] In December 2018, Interior issued a Final Environmental Impact Statement (EIS) and proposed plan amendments that would significantly decrease the scope of protected areas and the degree of protection in a number of the

[177] Press Release, U.S. Dep't of the Interior, Interior Department Finalizes Stream Protection Rule to Safeguard Communities from Coal Mining Impacts (Dec. 19, 2016), https://www.doi.gov/pressreleases/interior-department-finalizes-stream-protection-rule-safeguard-communities-coal-mining.

[178] *See, e.g.*, *Congressional Review Act Resolutions in the 115th Congress*, COAL. FOR SENSIBLE SAFEGUARDS, https://sensiblesafeguards.org/cra (last visited Sept. 17, 2019).

[179] *See* Press Release, U.S. Dep't of the Interior, Historic Conservation Campaign Protects Greater Sage-Grouse (Sept. 22, 2015), https://www.doi.gov/pressreleases/historic-conservation-campaign-protects-greater-sage-grouse (noting the sage grouse's range is approximately 173 million acres); *see also* Coral Davenport, *Trump Administration Loosens Sage Grouse Protections, Benefiting Oil Companies*, N.Y. TIMES (Dec. 6, 2018), https://www.nytimes.com/2019/03/15/climate/trump-sage-grouse.html.

plans.[180] Two other plans under development relate to the Bears Ears and Grand Staircase Escalante National Monuments. In December 2017, President Trump made significant reductions in the size and protections for those monuments that had been established in designations by former Presidents Obama and Clinton, respectively.[181] While legal challenges to the President's actions are still pending as Nada has outlined, draft management plans for those significantly modified monuments went through a notice and comment process that ended in November 2018: Bears Ears in mid-November[182] and Grand Staircase at the end of November.[183] Interior will next issue Proposed Management Plans and Final EISs. The draft management plans illustrate key pillars of this administration's strategy for public lands management.

First, make as much land as possible available for extractive purposes. This includes eliminating protected areas, such as monuments or other designated withdrawal areas, or using the management planning process to allow more permitted activities in the area. Once the restrictions are eliminated, allow more leasing, mining, and other extractive activities to occur. The administration is very proud of the fact that it is increasing leasing opportunities

[180] *See, e.g.*, BLM, Notice of Availability of the Utah Greater Sage-Grouse Proposed Resource Management Plan Amendment and Final Environmental Impact Statement, Utah, 83 Fed. Reg. 63,527 (Dec. 10, 2018).

[181] *See* Proclamation No. 9682, 82 Fed. Reg. 58,089, 58,093 (Dec. 8, 2017) (modifying Grand Staircase-Escalante National Monument); Proclamation No. 9681, 82 Fed. Reg. 58,081, 58084–85 (Dec. 8, 2017) (modifying Bears Ears National Monument).

[182] *See* Notice of Availability of the Draft Bears Ears National Monument Indian Creek and Shash Jáa Units Monument Management Plans and Final Environmental Impact Statement, Utah, 84 Fed. Reg. 36,118, 36,119 (July 26, 2019); BLM Notice of Availability, 83 Fed. Reg. 41,111 (Aug. 17, 2018); *see also,* BUREAU OF LAND MGMT., U.S. DEP'T OF THE INTERIOR, EXECUTIVE SUMMARY: BEARS EARS PROPOSED MMPS/FINAL EIS (2019), https://eplanning.blm.gov/epl-front-office/projects/lup/94460/20000100/250000103/Executive_Summary_Bears_Ears_Proposed_MMPs-Final_EIS.pdf.

[183] *See* Notice of Availability of the Grand Staircase-Escalante National Monument-Grand Staircase, Kaiparowits, and Escalante Canyon Units and Federal Lands Previously Included in the Monument That Are Excluded From the Boundaries Draft Resource Management Plans and Associated Environmental Impact Statement, 84 Fed. Reg. 44,326, 44,327 (Aug. 23, 2019); *see also* U.S. DEP'T OF THE INTERIOR, EXECUTIVE SUMMARY: GSENM-KEPA PROPOSED RMPS/FINAL EIS (2010), https://eplanning.blm.gov/epl-front-office/projects/lup/94706/20001992/250002377/01_GSENM-KEPA_Proposed_RMPs-Final_EIS_Executive_Summary.pdf.

and expanding other uses. This leasing is important because it creates an impediment to future land management planning. Once the land is leased, it is locked up for a certain number of years and subject to contractual and property rights expectations. It will be more difficult to return some of these areas to a protected status without cost to the government.

Turning now to several procedural issues affecting public lands management. The administration is focused on modifying the management planning processes with the stated goal of streamlining. In the name of efficiency and reducing burdens on the energy development, Interior is making changes that eliminate the opportunity for comment by the public, either by shortening time frames or finding ways to avoid public process.[184] These changes are being made to Interior's own regulations, but also to guidance that affects Interior's implementation of NEPA.[185] The administration is looking at revising the NEPA regulations as well. NEPA is often referred to as the Magna Carta in the environmental area, one of the first statutes to set forth a planning process that required the analysis of impacts before the federal government made a decision to take an action.

The NEPA regulations have been in place since the 1970s, but in August 2017, President Trump issued an executive order that launched an examination of the regulatory review process by White

[184] *See, e.g.*, Glicksman, *supra* note 165; Press Release, U.S. Dep't of the Interior, *supra* note 167; Sharon Buccino, *Keeping the Public in Public Lands*, 48 ENVTL. L. REP. 10297 (2018); *see also* Memorandum from the Deputy Dir., Policy & Programs, to All Field Officials (June 12, 2018), https://www.blm.gov/policy/pim-2018-014 (outlining the streamlined process for obtaining permits to drill federally owned minerals from non-federal land).

[185] *See* US DEP'T OF THE INTERIOR, ORDER NO. 3355, STREAMLINING NATIONAL ENVIRONMENTAL POLICY ACT REVIEWS AND IMPLEMENTATION OF EXECUTIVE ORDER 13807, "ESTABLISHING DISCIPLINE AND ACCOUNTABILITY IN THE ENVIRONMENTAL REVIEW AND PERMITTING PROCESS FOR INFRASTRUCTURE PROJECTS" (2017), https://www.doi.gov/sites/doi.gov/files/elips/documents/3355_-_streamlining_national_environmental_policy_reviews_and_implementation_of_executive_order_13807_establishing_discipline_and_accountability_in_the_environmental_review_and_permitting_process_for.pdf; *see also* Memorandum from the Deputy Secretary to Assistant Secretaries, Heads of Bureaus and Offices, and NEPA Practitioners on Additional Direction for Implementing Secretary's Order 3355 Regarding Environmental Assessments (Aug. 6, 2018), https://cdn.ymaws.com/www.ima-na.org/resource/dynamic/blogs/20180808_163922_22958.pdf.

House offices.[186] The executive order entitled, "Establishing Discipline and Accountability in the Environmental Review and Permitting Process for Infrastructure," directed the Office of Management and Budget and the Council on Environmental Quality (CEQ) to take steps to examine and improve the permitting processes.[187] CEQ, my former agency, was tasked to help lead efforts to streamline and facilitate maximizing opportunities under NEPA to more quickly address the environmental issues.[188]

In that vein, CEQ issued an advanced notice of proposed rulemaking in the summer of 2018.[189] It was originally published for a thirty-day comment period, but that was extended to sixty days.[190] In the notice, CEQ asks a series of questions that relate to every aspect of the NEPA process. Some are more mundane operational questions like, should CEQ change the number of pages for an EIS, or should the agency take steps that will make it more possible for agencies to coordinate their various processes? Although some of the questions seem innocuous, NEPA watchers are worried given the policy changes and proposals the administration is making and supporting outside of the NEPA context. For example, in early 2018, the administration sent a legislative roadmap for infrastructure projects to Congress.[191] As outlined below, it included proposals that would significantly alter NEPA implementation. Similarly, a number of federal agencies, including Interior, are changing their agency-specific NEPA guidance.[192] CEQ's broad questions set the stage for opening up all parts of the regulations, including basic definitions that have been in place for years. The distrust of the

186 *See* Exec. Order No. 13,807, 82 Fed. Reg. 40,463 (Aug. 15, 2017).

187 *See id*.

188 *See* 42 U.S.C. § 4344 (2012); *see also Agency NEPA Implementing Procedures*, COUNCIL ON ENVTL. QUALITY, https://ceq.doe.gov/laws-regulations/agency_implementing_procedures.html (last visited Nov. 1, 2019).

189 *See* Update to the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 28,591 (June 20, 2018).

190 *See* Update to the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act, 83 Fed. Reg. 32,071 (July 11, 2018).

191 *See* WHITE HOUSE, LEGISLATIVE OUTLINE FOR REBUILDING INFRASTRUCTURE IN AMERICA 36 (2018), https://www.politico.com/f/?id=00000161-8a9d-d53a-a5f5-bffd597b0000.

192 *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3355: STREAMLINING NATIONAL ENVIRONMENTAL POLICY ACT REVIEWS AND IMPLEMENTATION OF EXECUTIVE ORDER 13807: "ESTABLISHING DISCIPLINE AND ACCOUNTABILITY IN THE ENVIRONMENTAL REVIEW AND PERMITTING PROCESS FOR INFRASTRUCTURE PROJECTS" (2017).

administration's goals with respect to NEPA reform has created some awkwardness for the NEPA watchers in the advocacy community. If you have had any involvement in the NEPA process, you know that there are improvements that could be made and opportunities to expand the benefits of the review process. However, venturing down a reform path if the administration is hoping to gut the statute is ill-advised. CEQ received approximately 12,500 comments on the rule, including about 300 or so that are substantive comments.[193] The agency is in the process of determining what a proposal will look like.[194]

The legislative infrastructure roadmap referenced above is another area in which CEQ has been playing a big role.[195] The plan the administration issued lays out the legislative changes they think would encourage infrastructure investment. Included in the plan is a section on environmental management, which includes proposed revisions to many environmental statutes that would impact infrastructure projects.[196] Relevant to NEPA, the plan reinforces the idea of shortening the time frames associated with the completing the NEPA process; the plan urges a twenty-one month period for completing the NEPA document and only allowing three months between the time the environmental document has been completed and the decision is issued.[197]

The plan also urges eliminating EPA's role in evaluating the quality of the NEPA document; it notes that EPA can comment like everyone else.[198] However, EPA's role was intended to be broader than other commenters.[199] It was charged with determining whether the NEPA document provided the essential information and analysis required by the statute. The plan called for eliminating that role. As an aside, in the fall of 2018, EPA issued a memorandum eliminating

193 *See Update to the Regulations for Implementing the Procedural Provisions of the National Environmental Policy Act*, REGULATIONS.GOV, https://www.regulations.gov/docket?D=CEQ-2018-0001 (last visited Nov. 3, 2019).

194 The agency released its proposal in January 2020. *See* Update to the Regulations Implementing the Procedural Provisions of the National Environmental Policy Act, 85 Fed. Reg. 1684 (proposed Jan. 10, 2020) (to be codified at 40 C.F.R. pts. 1500–05, 07–08).

195 *See* WHITE HOUSE, *supra* note 191.

196 *See id.*

197 *See id.*

198 *See id*.

199 *See National Environmental Policy Act,* EPA, https://www.epa.gov/nepa (last visited Nov. 3, 2019).

its rating process.[200] The infrastructure roadmap also urged making it easier for agencies to adopt categorical exclusions, which eliminate the need for a public NEPA process.[201] It will not be surprising if some of these ideas find their way into the upcoming NEPA proposal.

Finally, my last topic is compensatory mitigation. Over the years, mitigation has become an increasingly important part of regulatory and permitting processes.[202] However, Interior seems intent on changing that fact.[203] Generally speaking, mitigation is the practice of avoiding, reducing, or minimizing the impacts of a planned activity.[204] Compensatory mitigation includes the practice of allowing the payment of fees to mitigate for the impacts of the proposed action. In the regulatory permitting process, mitigation measures have been an important part of convincing agencies that they should approve a desired activity that will have environmental impacts.[205] In the 1980s, there was a lot of resistance from the environmental community about the idea of people using mitigation as a way to get their permits; it was the regulated community and its supporters advancing the value of various mitigation approaches.[206] Over time, mitigation has become a more accepted part of the

[200] *See* Memorandum from Brittany Bolen, EPA Associate Administrator, to the Regional Administrators on Changes to EPA's Environmental Review Rating Process 37–38 (Oct. 22, 2018), https://www.epa.gov/sites/production/files/2018-10/documents/memorandum_on_changes_to_epas_environmental_review_rating_process.pdf.

[201] *See* WHITE HOUSE, *supra* note 195, at 37–38.

[202] *See generally, Background on Compensatory Mitigation*, ENVTL. L. INST., https://www.eli.org/compensatory-mitigation/background-compensatory-mitigation (last visited Sept. 14, 2019).

[203] *See* Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment: Hearing Before the S. Comm. on Energy & Nat. Res., 114th Cong. 16 (2016) (statement of Michael Bean, Principal Deputy Assistant Secretary for Fish and Wildlife and Parks, U.S. Dep't of the Interior); Michael Doyle, *Trump Admin Torpedoes Obama-era Mitigation Goal*, E&E NEWS (July 27, 2018), https://www.eenews.net/stories/1060091417; Justin Pidot, *Interior Department Will No Longer Require Industry to Offset Damage to Public Lands*, HILL (July 26, 2018, 6:00 PM), https://thehill.com/opinion/energy-environment/399093-interior-department-will-no-longer-require-industry-to-offset.

[204] *See Background on Compensatory Mitigation*, *supra* note 202.

[205] *See id*.

[206] *See* Palmer Hough & Morgan Robertson, *Mitigation Under Section 404 of the Clean Water Act: Where it Comes From, What it Means*, 17 WETLANDS ECOLOGY & MGMT. 15, 16 (2008); Leslie Roberts, *Wetlands Trading is a Loser's Game, Say Ecologists*, 260 SCIENCE 1890, 1890–91 (1993).

process, not only for Clean Water Act permitting, which first recognized the concept of no net loss of wetlands, but in other permitting situations as well.[207] Interior has certainly taken advantage of it. During the Obama years, there was a lot of focus on mitigation policies. With greater understanding about the impacts of projects and what was needed for successful mitigation, Interior adopted policies that moved from a no net loss standard to actually thinking about achieving net benefits.[208] These policies called on the agencies to consider the uncertainties that exist in areas where mitigation is offered and to factor in the potential implications of climate change in determining what mitigation measures were needed.[209] There were a number of both policy and legal documents issued during the Obama administration that supported Interior's use of mitigation, as referenced below. These were eliminated by the Trump administration slowly over the course of its first twenty-one months.[210]

In Executive Order 13783,[211] President Trump rescinded President Obama's 2015 presidential memorandum entitled, "Mitigating Impacts on Natural Resources from Development and Encouraging Related Private Investment."[212] Secretary Zinke then revoked his predecessor's secretarial orders that addressed mitigation: Specifically, Order 3349[213] revoked Secretarial Order 3330,[214] which was issued in October 2013 and called for the development of landscape-scale mitigation policies. Zinke's order also called for review and reconsideration of all mitigation policies and reports that were developed as a result of the 2013 order. Further implementing Secretarial Order 3349, Deputy Secretary David Bernhard issued Secretarial Order 3360 in December 2017,

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[207] *See Background on Compensatory Mitigation*, *supra* note 202 (discussing wetland compensatory mitigation).

[208] *See* Michael Doyle, *Trump Admin Torpedoes Obama-era Mitigation Goal*, E&E NEWS (July 27, 2018), https://www.eenews.net/stories/1060091417.

[209] *See, e.g.*, U.S. DEP'T OF THE INTERIOR, MANUAL ON LANDSCAPE-SCALE MITIGATION POLICY (2015), https://www.doi.gov/sites/doi.gov/files/uploads/TRS%20and%20Chapter%20FINAL.pdf.

[210] *See id.*

[211] Exec. Order No. 13,783, 82 Fed. Reg. 16,093 (Mar. 31, 2017).

[212] *See* Memorandum on Mitigating Impacts on Natural Resources From Development and Encouraging Related Private Investment, 80 Fed. Reg. 68,743 (Nov. 6, 2015).

[213] *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3349 (2017).

[214] *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3330 (2013).

revoking a number of internal guidance documents on mitigation which were imbedded in various Bureau handbooks and incorporated into the strategy proposed for the National Petroleum Reserve.[215] Most recently, in the summer of 2018, Interior's bureaus issued additional mitigation guidance. Fish and Wildlife Service rescinded 2016 policies that had instructed staff to strive for a net conservation benefit in the mitigation throughout various programs.[216] The BLM issued guidance prohibiting staff from requiring compensatory mitigation as a condition of approval in its actions, unless such mitigation was required by other state or federal programs.[217] Under limited circumstances, the BLM will accept voluntary compensatory mitigation, which raises the question of how significant the on the ground impact of the new policy will actually be.[218]

Nevertheless, the message to the staff is that compensatory mitigation cannot be treated as a routine tool to be deployed in the approval process. Without compensatory mitigation, it remains to be seen how and whether damaging impacts are reduced. The guidance provides that, pursuant to FLPMA Section 302(b), the BLM still has the obligation to ensure that any approved activity will not cause "unnecessary or undue degradation."[219] We'll see what that means in practice. Thank you.

215 *See* U.S. DEP'T OF THE INTERIOR, SECRETARIAL ORDER NO. 3360 (2017).

216 *See* U.S. Fish and Wildlife Service Endangered Species Act Mitigation Policy, 83 Fed. Reg. 36,469 (July 30, 2018).

217 *See* Bureau of Land Mgmt., Instruction Memorandum IM 2019-018 (Dec. 6, 2018), https://www.blm.gov/policy/im-2019-018.

218 *See id*.

219 43 U.S.C. § 1732(b) (2012).

SYMPOSIUM

KEYNOTE REMARKS

GINA MCCARTHY

INTRODUCTION BY RICHARD REVESZ

I'm delighted to introduce our keynote speaker Gina McCarthy. A career public servant, Gina has spent three decades working to protect public health and the environment. At the state level, she served in senior positions in Massachusetts under five governors, Democratic and Republican, including Mitt Romney. Also at the state level, she was the Commissioner of the Connecticut Department of Environmental Protection. Currently, she is a professor at the Harvard T.H. Chan School of Public Health, where she directs the Center for Climate, Health, and the Global Environment.

While many people know Gina from her state days and now from her Harvard days, I think most people in this country know her from her federal days—and in particular, from her work in the Obama administration. She was at EPA for the whole Obama administration, first as the Assistant Administrator for the Office of Air and Radiation, which is, in my world, the office that produces all of the important rules. And then, she served as Administrator, which is the position that supervises the production of all these important rules. Her accomplishments are extraordinary.

When you think of the big rules in the history of this country that produced the greatest benefits, these are rules that came out of Gina's tenure at EPA. For example, the Mercury and Air Toxic Standards on their own avoid about 10,000 premature deaths a year. When you add up the benefits from all her rules, Gina has literally saved hundreds of thousands of lives a year. There are few people

in the world who have saved this many lives! And it was during Gina's tenure at EPA that our country took a serious and structured approach to controlling greenhouse gas emissions through the Clean Power Plan (CPP), car standards, and standards for methane leaks from oil and gas installations.

Very sadly, some, but by no means all, of Gina's legacy is being imperiled by this administration. But a lot of it is chugging along just fine, continuing to save large numbers of lives. And some of the imperiled legacy will reassert itself once the efforts of the current administration are struck down by the court, as has happened to virtually all of its efforts to stay, delay, and suspend regulations. These efforts have virtually all been struck down by the courts, given the poor quality of the analysis. I'm confident that the Trump administration's future efforts to repeal and roll back rules will suffer the same fate.

One of the reasons why the Trump administration is having these difficulties is because the analysis behind EPA rules during Gina's tenure was so extraordinary. Not that it was always easy to digest it. If you are tired one of these nights, you could read all 1,600 pages supporting the CPP. And, that doesn't even begin to include all of the relevant documents: the Regulatory Impact Analysis, the legal justification, and the technical support documents. In these thousands of pages, there is excellent analysis.

This administration is going to have great difficulties dismantling Gina's legacy because it's very hard to undo things that cause so much good to the American people. And for that, we owe Gina an enormous debt of gratitude. I'm delighted that she's here to give our keynote address at the end of this conference.

REMARKS OF GINA MCCARTHY

Well, first of all, let me congratulate the Institute for Policy Integrity on your tenth birthday. That is about the year that my three children got really obnoxious. So, I'm hoping you do the same because there is a lot to get obnoxious about. And it's great to see so many of my colleagues from the administration continuing to be out there and be vocal and be positive about the work that we can continue to do together, even when it gets a little bit more difficult every day. It is amazing what a difference a couple of years makes. I really hope amidst all of the discussion that people got a chance to thank Ricky for all of his work and his team's work. It is

extraordinary. It's work that's looking at how we can support good rulemaking no matter who does it, in a way that is going to be legally sound—and when it's not, challenge it.

But also, there's an expertise here that is more and more interesting and important, which is looking just below that analysis at how you do the economic work of the agency and look at benefit-cost analysis. The challenge is getting people excited about it. You tell them the CPP is in danger, people are ready to comment and litigate. You tell them they're no longer going to consider co-benefits and, as you can imagine, people just don't get excited. But we need them to because cost-benefit analysis matters to the rulemaking process and even its outcome in the courts and the court of public opinion. It's one of the rules of the road that every major rule has to follow, like it or not. So, thank you for being an incredibly strong voice in challenging rollbacks of sound rules and the rulemaking process. I know you must be proud that you have so many students at this event and so many students who have joined the staff at EPA and done terrific work. Thank you for all your success. There is no doubt we are going to need all of your expertise and commitment in the courts as we move forward because we cannot rely on Congress as a backstop for good policy these days.

As we've seen, this administration is taking some actions that seem unprecedented. They are trying to use very old laws to allow the federal government to intervene in regional energy markets and force consumers to pay more money for dirty fuel that's harmful to their health.[1] They're taking climate science off the White House webpages.[2] They're actually pulling out or intending to pull out of the Paris Climate Agreement.[3] They're telling the agencies that they can't consider climate impacts when they're looking at

[1] *See* Miranda Green, *DOE Looking 'Very Closely' at Cold War-Era Law to Boost Coal, Energy Production*, HILL (May 9, 2018), https://thehill.com/policy/energy-environment/386891-doe-looking-very-closely-at-using-cold-war-era-law-to-boost-coal.

[2] *See "Climate Change" References Removed from White House Website*, COLUM. L. SCH. SABIN CTR. FOR CLIMATE CHANGE L. (Jan. 20, 2017), http://columbiaclimatelaw.com/silencing-science-tracker/references-to-climate-change-removed-from-white-house-website/.

[3] *See* Andrew Restuccia, *Trump Administration Delivers Notice U.S. Intends to Withdraw from Paris Climate Deal*, POLITICO (Oct. 4, 2017, 5:23 PM), https://www.politico.com/story/2017/08/04/trump-notice-withdraw-from-paris-climate-deal-241331.

infrastructure projects.[4] There are so many rollbacks and attacks on science happening, that I could go on and on. But we will find our way through this. We have to get through this. There is no choice.

As Ricky noted in the introduction, we did issue a large number of rules. One of the reasons why we did so many was that during the prior eight years, the George W. Bush administration took very few steps to conduct mandatory regulatory reviews and updates.[5] And when they did, the courts determined that some of the updates were simply not legal.[6] Mandatory duty lawsuits had been filed and the courts had set what to us looked like impossible deadlines for rulemaking, but we did our jobs. In fact, we didn't just do our jobs, we did the job that you would want government to do. We conducted the kind of outreach that good governance demands. Thankfully, the team at EPA was the best that anyone could hope for. Some of them are sitting here in this room. Unfortunately, neither Janet McCabe or Joe Goffman are here, and they have been my comrades in arms during my time at EPA and I will forever be grateful for their dedication, creativity, boundless energy, and endless wonky knowledge of the Clean Air Act. Together, we took extraordinary measures to engage not just the regulated community, but the public we serve, because we firmly believe that a democracy that is of, by, and for the people, demands it.

We would never have sat inside EPA and made fundamental decisions about what actions would best serve the mission of that agency, meet the letter and spirit of the law, and take account of the best current science available, without consulting EPA experts so we could identify the most reasonable, cost-effective path forward.

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[4] *See* Rashaan Ayesh & Amy Harder, *Trump Repealing Another Obama-Era Climate Change Policy*, AXIOS (June 21, 2019), https://www.axios.com/trump-repealing-another-obama-era-climate-policy-8f7feea8-2043-4088-b2b3-47572bc1661c.html.

[5] *See* JOHN LARSEN & MICHAEL OBEITER, WORLD RES. INST., AN UPDATED RESPONSE TO EEI'S TIMELINE OF ENVIRONMENTAL REGULATIONS (2012), http://pdf.wri.org/factsheets/factsheet_updated_response_to_eei_timeline_of_environmental_regulations.pdf (listing a number of pollutants for which an endangerment finding was made, but the Bush administration's EPA failed to impose new compliance obligations within the obligated timeframe).

[6] *See, e.g.*, New Jersey v. EPA, 517 F.3d 574 (D.C. Cir. 2008) (striking down the Bush administration's proposed emission of hazardous air pollutants from power generators rule); Katherine Seelye & Jennifer Lee, *Court Blocks U.S. Effort to Relax Pollution Rule*, N.Y. TIMES (Dec. 25, 2003), https://www.nytimes.com/2003/12/25/us/court-blocks-us-effort-to-relax-pollution-rule.html.

And we wouldn't have simply relied on our own judgement without also broadly reaching out to see what others thought, including the regulated entities. As a result, I remain incredibly proud of the work that we did, and I'm proud of Ricky and his team at the Institute for Policy Integrity for the defense of those rules, because they deserve to be defended. I believe one of the biggest challenges we face today is not whether or we did a good job on our rules, but the fact that every single rule is either actively being proposed for rollback or getting in the queue.[7] And the list doesn't just include ones finalized during the Obama administration, they include rules that have been on the books for many years that represent fundamental health protections—not just rules that limit carbon pollution, but traditional and conventional pollutants.[8] And as far as I can see, the federal government is attacking these final rules without providing any justification beyond their interest in taking a different approach and achieving a different outcome. Final rules are time-consuming and challenging to do—for good reason. They often set standards or requirements that result in large investment by the regulated community to protect public health and natural resources from even larger threats. Final rules do not stand the test of time without a large investment of time and energy, yet this administration seems willing to throw rollback proposals up in the air without any legal or scientific justification just to see where they might land. That is not how government should act. That is not providing certainty to the business community or the public.

And they are finding new ways to try to rollback final rules, including rethinking the way the agency has been evaluating science for decades,[9] dismantling science advisory boards,[10] and even the way cost-benefit analysis is conducted across federal agencies.[11] To

[7] *See* Nadja Popovich et. al., *83 Environmental Rules Being Rolled Back Under Trump*, N.Y. TIMES (Sept. 12, 2019), https://www.nytimes.com/interactive/2019/climate/trump-environment-rollbacks.html.

[8] *See id.*

[9] *See* Coral Davenport & Mark Landler, *Trump Administration Hardens Its Attack on Climate Science*, N.Y. TIMES (May 27, 2019), https://www.nytimes.com/2019/05/27/us/politics/trump-climate-science.html.

[10] *See* Rene Marsh, *Trump Administration Dismisses Climate Change Advisory Panel*, CNN (Aug. 21, 2017, 11:02 PM), https://www.cnn.com/2017/08/21/politics/white-house-climate-change-committee-dismantled/index.html.

[11] *See* Beth Gardiner, *Fuzzy Math: The Strategy Behind Trump's EPA Deregulation Push*, YALE ENV'T 360 (June 6, 2019), https://e360.yale.edu/features/fuzzy-math-the-strategy-behind-the-trump-epa-deregulation-push.

be honest, when Reagan in 1981 decided that every new significant rule needed to be evaluated through cost-benefit analysis, I thought it was akin to the road to hell paved with bad intentions, and I still think that at times. However, these are rules of the road and you have to follow them if you want to do your job and finalize rules. If you do not follow those rules, you are going to have people challenge your rules in the courts, and they will win.

My most important message before we open it up for questions is: don't let yourself get discouraged. As challenging as it is to see so much progress made at EPA now under fire, we have to pull ourselves up every morning and stay positive. You have to keep in mind that yes, even though the CPP is in limbo, clean energy has taken off, and that is not going to change because clean energy is now winning in the market. So, stand tall, stand together, turn the chaos of today into a reason why every single one of us has to stop being complacent, speak up, and get active. You might even need to march to stand up for our democracy. That's what we did in the sixties. That's what we did in the seventies. And that is what we have seen happen across the country since the Women's March on January 21, 2017. All you young people: buy bellbottoms, wear a madras shirt, and stand up for what you believe in. As we said decades ago when I was in high school and college, information is power. And that remains true today. Let's work together and provide real facts in support of the law and science. Thank you very much.

QUESTIONS & ANSWERS

We have a situation where EPA is exercising its discretion to cause massive net harms. Many of us are actually trying to communicate this, and I'm not sure that we're doing as effective a job as could be done because it's such an incredibly outrageous thing. Can you guide us on how to tell the story about the totally extraordinary action of the government?

I think one of the big challenges we face stems from work I'm trying to do at Harvard. We do a terrible job telling our story. We've done a terrible job engaging the public on climate change. People understand it's happening. In places like Puerto Rico, there is no real question about whether climate change is real. And that's not the only place in the United States where extreme weather events are happening. Think about the hurricanes that hit North Carolina and

South Carolina.[12] But we just don't communicate effectively about the overwhelming consensus in the science community on climate change, or take time to explain the significant health consequences we are facing even today in ways that people can relate to. And, I don't think we are supporting grassroots organizations that are so needed to drive actions.

In my world, every big step forward started at the local level. I tell people, climate change is carbon pollution. I very seldom call it climate change, although that's what most people call it, because I want people to see climate change as pollution and not some far away problem that no one can fix. We've done a pretty damn good job on pollution. We can tackle carbon pollution as well, and it's important that we do. Pollution holds people down, especially those most vulnerable: kids, the elderly, and minority and low-income communities. Climate change is an equity issue. That is why we worked hard in the design of the CPP to make sure every community would benefit by having access to the clean energy resources.

So many young people like those at Harvard, are outraged about what's going on at the federal level because they care so deeply about equity and justice. And I try to remind them that while we worked hard during the Obama years, the federal government is not the only actor or level of government where change can happen. While the federal government is, at best, not acting on climate change right now, cities and states are stepping up. We should make sure that we are giving people the information they need to demand and support climate action.

We will never get this administration to care that the proposed Affordable Clean Energy rule is moving in a direction that is contrary to the mission of the agency. They are proposing *not* to protect public health and the environment, and to proceed in a way that's more costly than the CPP it would replace. It's good to comment on the proposed rule, but I don't think we're ever going to change the direction of any final rule other than through court action. So now is the time to go out and support grassroots organizations to drive change in towns, cities, states, and regions,

[12] *See* Laura Parker, *Hurricane Florence's Rains May Be 50% Worse Thanks to Climate Change*, NAT'L GEOGRAPHIC (Sept. 13, 2018), https://www.nationalgeographic.com/environment/2018/09/hurricane-florence-rain-climate-change-science/.

and to drive change in the voting booths where change is most necessary.

> *We live in a very polarized society, and the political parties are far apart these days. They believe in different science and different facts and different economics. You are rare among high ranking public officials that you actually worked with administrations of both parties. Do you have advice on how one can engage Republicans in these kinds of issues?*

I think the first thing I will admit to you is that the Republicans I worked for were in Massachusetts and Connecticut, and they looked a little bit like moderate Democrats. But honestly, it's the same way I worked with industry. You have to understand what people care about. You have got to connect at a gut level. I don't know of any Republican that would have failed to pick up the phone and call me if they had a health problem in their own community. And I would remind them of that. There are consequences to defunding EPA, and one is that we're not going to be there when you need us. And so you've got to try to remind them what you do for a living, all the resources that EPA and the rest of the federal government provides to their communities, and why that support remains important to their constituents. EPA is all too often criticized by both sides of the aisle—that's just the way it seems to work, and it's not very productive. But I think climate has upped the ante significantly because it's become so partisan and so polarizing. I am not sure that anything other than changes in Congress or the administration will make a difference in the partisanship surrounding climate change.

> *There are very necessary environmental policies that would lead to coal miners being worse off as a result. On the other hand, it would be wrong to say that because of their situation, we can't take actions that are going to have enormous net benefits to the country. Is there a way to take coal miners' plight seriously? Is there an intelligent way to deal with this so they actually get help, and don't get used as political pawns in this broader existential debate between the parties?*

The only way to deal with it is to recognize that—and I think it's one of the challenges we face today—a lot of people feel like

they have no power and that the world is changing at a pace that they cannot keep up with. But the way in which leaders representing coal states have promised to essentially reverse the market to make coal profitable again in the United States is disingenuous at best. They know as well as anyone that the coal industry has been declining since the eighties, and people in the coal industry have been losing their jobs for many decades. There are significant challenges in rural communities across the country that must be addressed, and it's time to launch a concerted effort to boost the economies in these areas, not by looking backwards at the failing coal industry, but by looking to the future. But I have been hard-pressed to find examples of when we have taken on this kind of challenge.

I spent time at the Harvard T.H. Chan School of Public Health doing a fellowship last year and Governor Beshear, the former Governor of Kentucky, was also a fellow. And under his leadership, Kentucky became one of the first states to really jump on board with the Affordable Care Act.[13] And we spent some time talking because one of the things that he did was to recognize that he could use the Affordable Care Act to direct resources to coal country where he could build healthcare facilities and put people to work.

You need to have that kind of state and local leadership, and resources to provide workable solutions to shifts in the marketplace.

What advice do you give to senior EPA career people who've been there for a long time across several administrations? Should they try to stick it out through this administration?

I had one consistent piece of advice for them before I left and that was to stay at the agency and do your jobs as long as you possibly can. I did not know that it would be as difficult as it is. Frankly, under Secretary Scott Pruitt, the disrespect for the career staff has been palpable and it must have been really hard to see a

[13] *See* Caroline Humer, *Kentucky Governor Announces Medicaid Expansion Under Obamacare*, REUTERS (May 9, 2013, 7:05 PM), https://www.reuters.com/article/us-usa-healthcare-kentucky/kentucky-governor-announces-medicaid-expansion-under-obamacare-idUSBRE94817R20130509; *Status of Medicaid Expansion Decisions: Interactive Map*, KAISER FAMILY FOUND., https://www.kff.org/medicaid/issue-brief/status-of-state-medicaid-expansion-decisions-interactive-map/ (last updated Nov. 15, 2019) (showing that Kentucky was among the first states to expand Medicaid).

handful of inexperienced folks come in and rewrite rules without the input of the career staff—or even worse, ignoring their input. I think that the new administrator, Andrew Wheeler, is much more respectful of the staff. Does that mean the decisions are going to come out differently? Not likely, because everybody who takes that job knows what the wishes of this President are and what he expects to see happen.

I think that the challenge that you're seeing now for the career staff is threats of reorganization in the regions and headquarters for the sole purpose of shifting career staff into jobs they won't want or areas of the country that require relocation that families find objectionable. That way they can start whittling down the staff. I think many of the staff who are of retirement age have already left. But there are many, many more that are staying, and I think they're going to try to continue to do their jobs effectively.

> *After the 2020 election, we can hope for a transition to an administration that would want to put in place good, rational policies. Obviously, the transition will be complicated because of what this administration did, but also it presumably won't be the case that the goal should be to put back in place every single policy in identical form. How should we think about how to put a rational climate change policy together for an administration whose interests may not be identical to the Obama administration's, because time has passed, things on the ground have changed, and all these things have happened?*

There are a lot of efforts already underway on what to do next and how to prepare for a potential shift that allows a more rational approach to the agency's work. People are doing exactly as you suggest, which is thinking ahead rather than look back. We all know already that CPP could be much tougher next time around because we've gone way past anticipated levels of carbon reductions, so you can't rely on the old analysis. I think a new administration is going to have a big job to do.

But I do worry about the future if we fail to stop the level of partisanship that is fueling the attacks on EPA. I never thought I'd worry about the rule of law at EPA and across the federal family, but I do worry about it. We cannot have every administration focused on undoing the work of the one before and making final rules meaningless.

We have never in our history had final rules questioned the way that they are today. On the other hand, I don't think we are going to see many of the finals rules successfully rolled back by the end of 2020.

Lastly, it's important also to keep in mind that if you don't maintain the rule of law, nothing else matters and that requires enforcement to ensure compliance with standards and rules. The agency has whittled its staff size down and through policy changes has reduced even further its enforcement presence. These are fundamental problems that must be fixed. So, it's not just the rules themselves we need to worry about, it's the staffing and the policies being implemented across the regions that will need to be rebuilt, and that work will not get done in a day. And the reputation that the United States has enjoyed across the globe has suffered, and that will not recover for a very long time.

> *Do you see some scenario where there can be agreement between the Democrats and some Republicans, where they'd say, look, this sort of sector by sector regulation is cumbersome and is difficult and so on, and some sort of legislative solution could work better? Is that just totally fanciful thinking, or should we be thinking about that in connection with the next presidential transition?*

I do think we should be thinking about that. I am much less pessimistic now than I was even just a few months ago. I think underneath all of the drama, there are many Republicans who actually understand that climate change is happening. They understand the risks. I think the business community underneath it all is speaking more loudly than they have before about the international and the domestic risks that they are facing and the need for action.

When I spend time at Harvard and enjoy the company of young people, I see real opportunities for change. But they need to be reminded that as hard as today may be, life can change very dramatically, very quickly—just as it did in the last election. I could never have predicted that Governor Scott would ever sign a gun control law, but none of us ever want to have another Parkland School tragedy to prompt needed change.

Why are partnerships with industry so difficult to forge? How can we do better in this regard?

The one thing that's interesting right now is that even the private sector is not being listened to by this administration. The administration is pushing proposals that even the regulated community doesn't support. EEI, the Edison Electric Institute, wrote to the EPA Acting Administrator to tell him not to rethink the Mercury and Air Toxic Standards, but EPA is rethinking it even though it was finalized in 2011 and is just about fully implemented. You can forge relationships with industries even though they may not want to have the work conducted in a public forum. We had tremendous amounts of very deep discussions with the utility industry. They had information and understanding about the energy sector that we did not have. If we had treated them as public enemy number one, we never would have had the ability to get the work done in a way that would be reasonable and appropriate. And the utilities for the most part, trusted that EPA could have substantive discussions with them in a way that would enable us to do our job and be respectful of their legitimate business needs. I got to know and to like many of the utility CEOs. I was able to better understand the world they live in. I now know that most of them are now investing heavily in renewable energy and energy efficiency, and that fact won't change even in the unlikely event that the administration's rollbacks succeed.

As much as was done during your time at EPA, looking back, do you feel you should have gone much further, especially in light of what followed?

No. I understood the question and there were some things we could have tried to do more quickly in the end. But that is not my style. I think you have to be deliberate and do the best you can. When you cut corners, you do an injustice to the process and threaten the outcome. And I'm pretty much a public service freak. I work for the public, and I never felt it was appropriate to cut corners and simply put something on the table without doing it well.

But there's always things that you wish you could have done differently and better. There are always things left undone. But

that's part of what it means to work in public service. You do the best you can with the time you have.

If the climate rules had been done in President Obama's first term, they'd probably be at a different place now. If you had been asked during the first term, would you have, in retrospect, suggested that they move more quickly?

No, probably not. Because if you remember, we only lost by two votes on getting a cap-and-trade bill through Congress. There was every reason to believe that we had a big shot at success. And while I love rules, congressional action could have been a much deeper and more effective tool. So I think it was the right thing to try, but it didn't work.

Your administration used outreach and collaboration with communities to create receptivity. How can we best use those tools for renewed regulation in the next administration?

I think that's what the name of the game is right now. I've received calls from people who want to support climate action, want to know where they can make the most difference, and how to make sure that governors and mayors do the right thing. I tell them, fund grassroots organizations because they can make things happen. They can hold leaders accountable.

When I left the administration, I tried to think about what I was going to do. And one of the things I decided was to go back to the public health world. As I see it, EPA is a public health agency. And I believe that progress on climate can best be advanced by focusing on health. Everything you do to make the world healthier is going to also make the planet healthier. And I'm happy to not keep arguing about climate if I can get action to happen by focusing on health risks. I'm not going to ignore climate change or stop trying to broaden the base for climate action, but I am going to take advantage of every opportunity to drive change quickly.

I started thinking about it and how most of the progress at EPA has been based on making the health consequences clear and following in the footsteps of work that has been tested at the local, state, and regional levels. So I don't think that really creative new things come out of the federal government as much as it's driven from the bottom up.

You know, people get so frustrated that we haven't made any progress on climate. But we have been burning fossil fuels since primitive people have been on this earth. Let's not get discouraged! Let's realize that we are now at a time where technology evolves in moments, and there now are solutions to this and innovation will drive even more solutions. But we have to continue to motivate more and more people to act. And I don't know a better way to make that happen than by supporting grassroots organizations that can demand change.

There was a time when other countries looked to the United States for leadership and guidance. Now are there countries that you think have good policies in place with respect to climate change that we should be looking at for examples?

Both the European Union and China are realizing that they are not making the progress that they want. There's some work being contemplated in Paris that's really interesting in the transportation sector, but I love the idea that both the European Union and China are going to ban the internal combustion engine in 2040. I think that's fabulous. That is the kind of thing that instigates large-scale change. That drives technology forward. I love it. I just think it's exactly the kind of signal that we should be sending: a long-term signal similar to what we tried to do with the CPP. The kind of signal that this administration is trying to silence.

Now in China, I think they're doing some remarkable things and India is beginning to take some significant steps to advance solar energy. While we can always hope for more—and should—good things are happening.

I went to a meeting recently that the United Arab Emirates asked me to moderate, which was a panel of about thirty ministers of health from a variety of different countries, just talking about what can be done to reduce climate risks. I found it a bit embarrassing to be moderating the discussion knowing that there was no official U.S. delegate sitting at the table but the conversation was remarkably engaging. People around the table understood that the problem of air pollution is so extreme in many countries that it's becoming obvious that climate change is already having a significant health impact. And while health threats go well beyond air pollution, air pollution is the main reason why China has taken

on climate change so aggressively. That's why India is beginning to move.

CONCLUDING REMARKS

In closing, let me thank the Institute for asking me here tonight. You have done incredibly important work to keep a check even on federal actions—even during the Obama administration. Government is at its best when folks that are clever and resourceful, like you, are engaged. Right now, we are facing threats to our democracy. We have to keep fighting and stay in the game. If we do, things will get better.

Some mornings it is hard to get up and face the news out of D.C. But then I go into Harvard and hang out with young people and remember that it's really their future that is at stake. We have to keep fighting. And I am proud of the work I have done while in public service and excited to keep supporting these efforts. And I'm still very proud to live in the United States of America. Thank you.

ARTICLE

VALUING ENVIRONMENTAL LABELS

CASS R. SUNSTEIN*

ABSTRACT

Federal regulators have often required environmental labels, which may be designed to help consumers to save money or to reduce externalities. Under prevailing executive orders, regulators are required to project the benefits and costs of such labels, and also to show that the benefits justify the costs. These projections can be extremely challenging, partly because of the difficulty of knowing how consumers will respond to labels, partly because of the challenge of converting behavioral changes into monetary equivalents. The benefits of environmental labels should include (1) the monetary value of the reduced externalities and (2) the monetary benefit to consumers, measured by willingness to pay. It may be difficult for regulators to know (1), and even if they can figure out (2), willingness to pay may not capture the welfare benefit to consumers, at least if consumers are not adequately informed (or if they suffer from some kind of behavioral bias). In principle, agencies should include, as part of (2), the moral convictions of people who care about environmental goods, at least if those convictions are backed by willingness to pay. In the face of the evident epistemic difficulties, sometimes the best that agencies can do is to engage in breakeven analysis, by which they explore what the benefits would have to be in order to justify the costs. Technical as they might seem, these claims raise fundamental questions about valuation of environmental goods and the possible disconnect between willingness to pay and welfare.

* Robert Walmsley University Professor, Harvard Law School. This essay is the basis for the keynote address given on the occasion of the tenth anniversary of the Institute for Policy Integrity, held at New York University School of Law on Sept. 28, 2018. Readers are asked to make allowances for the informality of an essay originally written for an oral presentation. I am grateful to Cody Westphal for superb research assistance, and to Eric Posner and W. Kip Viscusi for valuable discussion and comments on related work.

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I. LABELS AND WELFARE

All over the world, governments have been drawn to environmental labels.[1] In the United States, motor vehicles are sold with fuel economy labels.[2] Appliances come with energy efficiency labels.[3] The U.S. Department of Agriculture (USDA) now requires labels for bioengineered foods.[4] The same department requires labels for "dolphin safe" tuna.[5] The range of environmental labels is exceptionally wide. Such labels can be categorized as "nudges," designed to respect freedom of choice, while also steering people in specified directions.[6]

As these examples suggest, environmental labels have three purposes. First, they might be intended to help consumers to save money. A fuel-efficient motor vehicle costs less to operate than one that is not fuel-efficient; over the life of a vehicle, it might turn out to be in a consumer's interest to purchase such a vehicle, even if it costs more up-front.[7] A label might alert consumers to that fact.

[1] *See, e.g.*, Jason Czarnezki, Margot J. Pollans & Sarah Main, Eco-Labelling 1-2, 9 (Oct. 1, 2018) (unpublished manuscript) (available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3230440); *see also* Ibon Galarraga Gallastegui, *The Use of Eco-Labels: A Review of the Literature*, 12 EUR. ENV'T 316, 322–23 (2002).

[2] *See* Labeling Requirements, 40 C.F.R §§ 85.2119, 86.1606, 600.301 (2018) (describing labeling requirements for motor vehicle parts, altitude performance adjustments, and fuel economy); *see also* Consumer Information, 49 C.F.R. § 575 (2018) (describing more general consumer information labeling requirements).

[3] *See* Energy Labeling Rule, 16 C.F.R. § 305 (2019).

[4] *See* National Bioengineered Food Disclosure Standard, 7 C.F.R. pt. 66 (2018).

[5] *See* Dolphin-safe Labeling Standards, 50 C.F.R. § 216.91 (2018).

[6] *See* RICHARD THALER & CASS R. SUNSTEIN, NUDGE: IMPROVING DECISIONS ABOUT HEALTH, WEALTH, AND HAPPINESS 189, 192 (2009).

[7] *See* JACK GILLIS & RICHARD ECKMAN, CONSUMER FED'N OF AM., AN ANALYSIS OF CONSUMER SAVINGS AND AUTOMAKER PROGRESS ON THE ROAD TO

Second, environmental labels might reduce externalities. If consumers care about greenhouse gas emissions, a label might make it easy for them to act on the basis of their moral convictions. If they do so, they might receive a welfare gain for that very reason, because they care about those convictions. More important, they might reduce greenhouse gas emissions. The label might make such emissions especially *salient* and trigger action for that reason.[8] Third, environmental labels might help consumers to do what it is morally right, in their view, to do. As we shall see, this point is independent of the second. It points to a benefit to consumers, not to third parties.

My question here is simple: What are the costs and benefits of environmental labels? I mean that question as an entry point into a host of questions, some of them quite fundamental. For example: (1) Should satisfaction of moral convictions count in cost-benefit analysis? (2) When crucial information is absent, how can agencies capture the welfare effects of what they propose to do, or of what law requires them to do? (3) What is the relationship between willingness to pay and welfare?

I offer three claims here. The first and most modest is that when agencies are requiring environmental labels, they should attempt to quantify both costs and benefits, and to show that the benefits justify the costs. I hope that this claim is not controversial. Despite its modesty, the claim has bite. It suggests that some environmental labels should not be required, despite their evident appeal—perhaps because they are poorly designed, perhaps because they would do little or no good. It suggests that other environmental labels are a terrific idea. It also imposes a salutary incentive, which is to obtain a better understanding of what kinds of designs are most helpful, in the sense that they produce the highest net benefits.

The second claim is that satisfaction of people's moral convictions should count in cost-benefit analysis, above all on welfare grounds.[9] If people are willing to pay $X to ensure that their

2025 CAFE STANDARDS 5 (2017), https://consumerfed.org/wp-content/uploads/2017/07/on-the-road-to-2025-cafe-standards.pdf.

[8] On the importance of attention and salience, see Xavier Gabaix, *Behavioral Inattention* 41–45 (Nat'l Bureau of Econ. Research, Working Paper No. 24096, 2018), http://www.nber.org/papers/w24096.

[9] For a more in-depth defense of this position, see generally Eric A. Posner & Cass R. Sunstein, *Moral Commitments in Cost-Benefit Analysis*, 103 VA. L. REV. 1809 (2017).

moral convictions are satisfied, $X is a benefit of a regulation that achieves that goal. Agencies should not ignore that benefit (as they have long done).

The third claim is that for many environmental labels, *breakeven analysis* is the best path forward. With breakeven analysis, agencies begin by identifying the costs of the regulation in question, and then specify what the benefits would have to be, in order to justify the costs.[10] If agencies are able to generate upper or lower bounds, breakeven analysis can be a helpful way of determining environmental labels are worthwhile. There are better approaches, but they impose serious information-gathering burdens on regulators, and agencies may not be in a position to gather the necessary information.

II. THEORY AND PRACTICE

Since 1981, American Presidents have required executive agencies to catalogue the costs and benefits of regulations, and to demonstrate that the benefits justify the costs.[11] These requirements should be seen as an effort to focus on the welfare effects of regulatory activity.[12] To be sure, cost-benefit analysis is a highly imperfect way to capture those effects.[13] At the present time, however, it is the most administrable way to achieve that goal; I will have something to say here about the possible disconnect between the outcome of cost-benefit balancing and welfare.

In the environmental context, many proposals for public and private action are *expressive*. They are meant to reflect people's values. Certainly, this may be true for labeling proposals, which might be animated by a view that something is morally wrong, or morally troubling, and consumers ought to be informed of that fact. Cost-benefit balancing is broadly opposed to expressivism.[14] It asks: What are the actual consequences? Of course, moral commitments of certain kinds are necessary to make that question tractable; we cannot assess consequences unless we know what matters, and

[10] *See* Cass R. Sunstein, *The Limits of Quantification*, 102 CAL. L. REV. 1369, 1369 (2014).

[11] *See* Exec. Order No. 12866, 3 C.F.R. § 638 (1993), *reprinted in* 5 U.S.C. § 601 app. at 86–91 (2012).

[12] *See* CASS R. SUNSTEIN, THE COST-BENEFIT REVOLUTION 12 (2018).

[13] *See* MATTHEW ADLER, WELL-BEING AND FAIR DISTRIBUTION xiii (2011).

[14] *See* SUNSTEIN, *supra* note 12, at ix–xviii.

moral judgments are necessary to help us to tell.[15] But most of the time, the relevant commitments are broadly shared, so that the analysis can get off the ground.

For environmental labels, the initial problem for cost-benefit analysis, and potentially the most serious, is *epistemic*; agencies often lack essential information. For a glimpse of some of the complexities, consider a proposed rule from the USDA, the Bioengineered Food Disclosure Standard.[16] The agency did not have much difficulty with respect to costs. It projected first-year costs of $600 million to $3.5 billion, with ongoing annual costs of between $114 million and $225 million.[17] With respect to benefits, the agency flatly said that there would be *none* "to human health or the environment."[18] To fortify the point, it added that even if the new labels changed the ratio of bioengineered (BE) to non-BE food purchases, "there would be no impacts on human health or the environment."[19] Thus far, it seems that the regulation would impose significant costs for no benefits at all.

Nonetheless, the agency pointed to two categories of benefits. The first involved elimination of (a) a more aggressive approach from one state (Vermont) that might drive the national market or (b) the inefficiencies of diverse state-level labeling requirements. These kinds of benefits are irrelevant to my topic here. Note, however, that insofar as (a) or (b) involve benefits, the best way to provide them would be by preempting state law—period. The second and more pertinent category of benefits comes from providing consumers with "reliable information about BE food products."[20] As the agency noted, consumers "have expressed interest in this information."[21] But it declined to try to monetize that interest. It observed that "consumer surveys, experimental studies, and market outcomes

[15] *See id*. at 57.

[16] *See* National Bioengineered Food Disclosure Standard, 7 C.F.R. pt. 66 (2018). The rule was finalized with an analysis that is different in some ways, but for purposes of the discussion here, similar in all relevant respects to that accompanying the proposal. *See id.*

[17] *See* National Bioengineered Food Disclosure Standard, 83 Fed. Reg. 19,860, 19,881 (May 4, 2018).

[18] U.S. DEP'T OF AGRIC., REGULATORY IMPACT ANALYSIS FOR THE PROPOSED NATIONAL BIOENGINEERED FOOD DISCLOSURE STANDARD 65 (2018), https://www.regulations.gov/document?D=AMS-TM-17-0050-2833.

[19] *Id*.

[20] *Id*.

[21] *Id*.

suggest different valuations."[22] It added that in this context, "Willingness to pay and other experimental studies for BE foods are particularly problematic as a basis for computing potential benefits (consumer surplus), with a number of researchers questioning the high negative consumer valuation of BE products resulting from these types of studies."[23]

Those questions are perfectly legitimate. The surveys, suggesting that people are worried about BE products, may not tell us much. They may not map onto actual behavior with respect to purchasing decisions; there is good reason to think that they do not.[24] In the abstract, people might *say* that they are worried, but in stores, they might show that they are not. To the extent that it exists, consumer willingness to pay for the information may well depend on a mistaken belief that BE food products are unsafe or harmful to the environment.[25] If willingness to pay is based on a mistake of fact, the preferred remedy should be to correct the error rather than to require labels—not least because labels could aggravate and spread the error, by making people think that federal regulators are concerned about the risks.[26] That thought could itself produce welfare losses, as people buy products thinking that they are unsafe, or buy alternative products that they like less.

In the end, the USDA concluded that as against a baseline of no state-level BE labels, "there are no quantified benefits associated with the Federal standard."[27] What is noteworthy is that in its proposal, the USDA did not say that the benefits were zero. Instead it declined to quantify the benefits of providing the information *in any way*. All over the world, that practice is common. The appeal of environmental labels is such that they are adopted without a serious effort to see what kinds of benefits they are producing.

Here is some suggestive data. I conducted a small-scale study, using Amazon's Mechanical Turk and asking about four hundred Americans about whether they wanted information of various kinds,

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[22] *Id*.

[23] *Id*.

[24] *See* Nicholas Kalaitzandonakes et al., *Sentiments and Acts Towards Genetically Modified Foods*, 7 INT'L J. BIOTECH. 161, 165 (2005).

[25] *See* Cass R. Sunstein, *On Mandatory Labeling, With Special Reference to Genetically Modified Foods*, 165 U. PA. L. REV. 1043, 1076 (2017).

[26] *See* Oren Bar-Gill et al., *Drawing False Inferences From Mandated Disclosures*, 3 BEHAV. PUB. POL'Y 209, 223 (2018).

[27] U.S. DEP'T OF AGRIC., *supra* note 18, at 8.

and also how much they would be willing to pay for that information. For example, I asked them whether they wanted information about the annual cost of operating appliances in their home, and how much they were willing to pay for that information. Only sixty percent of people wanted the information, and the median willingness to pay was just fifteen dollars. I also asked them whether they wanted to know whether their food contained genetically modified organisms. Here again only sixty percent of people wanted to know, and their median willingness to pay was twenty-four dollars. Outside of the environmental context, I asked whether people wanted to know whether products contained "conflict minerals," that is, minerals used to finance mass atrocities. Only fifty-five percent of people wanted that information, and their median willingness to pay was $26.50.

III. CONSUMER WELFARE: FOUR APPROACHES, IN BRIEF

In assessing the benefits of environmental labels, federal agencies in the United States have adopted four distinctive approaches, imposing increasingly severe information-gathering demands on public officials producing regulatory impact analyses.[28] It is not always easy to explain why agencies choose one or another approach in particular cases.

The first approach—adopted in the case of BE food, and sometimes the most candid—is to confess a lack of knowledge by acknowledging that, in light of existing information, some costs and (especially) benefits simply cannot be quantified.[29] The problem

[28] I explore the four approaches in detail in Cass R. Sunstein, *Ruining Popcorn? The Welfare Effects of Information*, 58 J. RISK & UNCERTAINTY 121, 128–29 (2019), and draw on that discussion here.

[29] For an important decision upholding a refusal to quantify benefits, on the ground that quantification was not feasible, see Inv. Co. Inst. v. Commodity Futures Trading Comm'n, 720 F.3d 370, 377–78 (D.C. Cir. 2013). In the context of disclosure, the leading decision is *Nat'l Ass'n of Mfrs. v. SEC*, which upheld against arbitrariness review a regulation that would require disclosure of the use of "conflict minerals":

> An agency is not required "to measure the immeasurable," and need not conduct a "rigorous, quantitative economic analysis" unless the statute explicitly directs it to do so. Here, the rule's benefits would occur half-a-world away in the midst of an opaque conflict about which little reliable information exists, and concern a subject about which the Commission has no particular expertise. Even if one could estimate how many lives are saved or rapes prevented as a direct result of the final rule,

with this approach is that it suggests that the decision to proceed is essentially a stab in the dark.[30] When the stakes are large, that seems unacceptable, certainly for policymakers. It is also a disservice to the public: Should regulators impose significant costs on the private sector without making every effort to be transparent about the benefits that disclosure might confer? To be sure, quantification may turn out not to be feasible. But if agencies cannot specify the benefits of environmental labels, or some kind of range, they might want to hesitate before going forward. A conclusion of despair—to the effect that quantification is not possible—should be a last resort.

The second approach involves "breakeven analysis," by which agencies describe what the benefits would have to be in order to justify the costs—and suggest that the benefits are indeed likely/not likely to be of the requisite magnitude.[31] Suppose, for example, that a disclosure requirement would impose annual costs of $100 million

> doing so would be pointless because the costs of the rule—measured in dollars—would create an apples-to-bricks comparison. Despite the lack of data, the Commission *had* to promulgate a disclosure rule.

Nat'l Ass'n of Mfrs. v. Sec. & Exch. Comm'n, 748 F.3d 359, 369 (D.C. Cir. 2014) (quoting *Inv. Co. Inst.*, 720 F.3d at 379), *overruled by* Am. Meat Inst. v. U.S. Dep't of Agric.., 760 F.3d 18 (D.C. Cir. 2014)).

[30] For example, according to EPA and the U.S. Department of Transportation,

> The agencies recognize that Executive Order 13563 directs agencies "to use the best available techniques to quantify anticipated present and future benefits as accurately as possible." In this context, however, quantitative information is not available, and the agencies have therefore chosen instead to continue with a qualitative assessment of benefits. It is difficult to develop a good baseline for the fleet using the existing label, partly because the existing label is not designed to incorporate advanced technology vehicles. It is even more difficult to develop a comparison for the fleet with the new labels, because the effects of label designs on vehicle purchases are not known. Thus, any assessment of quantitative effects of label design on vehicle sales involves a great deal of speculation. The agencies believe that informed choice is an end in itself, even if it is hard to quantify; the agencies also believe that the new labels will provide significant benefits for consumers, including economic benefits, though these benefits cannot be quantified at this time.

Revisions and Additions to Motor Vehicle Fuel Economy Label, 76 Fed. Reg. 39,477, 39,517 (July 6, 2011) (to be codified at 40 C.F.R. pts. 85, 86, 600; 49 C.F.R. pt. 575). In short, "[t]he primary benefits associated with this rule are associated with improved consumer decision-making resulting from improved presentation of information. At this time, EPA and NHTSA do not have data to quantify these impacts." *Id.*

[31] For discussion, see Sunstein, *supra* note 10, at 1390–93.

and that the product is purchased, every year, by fifty million consumers. Agencies might ask: Is the label worth two dollars annually to every consumer? A question of this kind might have an obvious answer.

In principle, this approach is much better than a simple confession of ignorance, at least if the agency can show that the benefits have a lower or upper bound. In the case of a lower or upper bound, the decision whether to go forward might become clear. Breakeven analysis is sometimes the only possible path forward, and I will have some nice things to say about it. But in hard cases, it involves a high degree of guesswork, and without a lower or upper bound, it seems to be a mere conclusion, a kind of ipse dixit, masquerading as an analytic device. Without reasonable identification of lower or upper bounds, it is not so different from a confession of ignorance. The real question is whether lower or upper bounds can be reasonably identified.

The third approach is to attempt to specify outcomes in terms of endpoints, such as economic savings or health endpoints. The advantage of this approach is that it actually points to concrete benefits, and it attempts to measure and to monetize them. But it too runs into serious difficulties. I have referred to the first, which is epistemic: agencies may lack anything like the information that would enable them to venture such a specification. They might have little idea, for example, how much consumers will save as a result of fuel economy labels.

The second problem is that even an accurate specification of endpoints will not give a full picture of the actual benefits; in crucial respects, it will almost certainly overstate them.[32] In brief, the problem is that people might experience significant losses as well as gains as a result of receiving information.[33] Suppose, for example, that people are given information about their home energy use, or that they learn that a car that they love has terrible fuel economy. They might be better off on net, but they might also suffer losses, because the information saddens or frightens them, or leads them to switch to a product that is inferior along certain dimensions. An account of endpoints will ignore those losses—but they are real.

[32] *See* Hunt Allcott & Judd B. Kessler, *The Welfare Effects of Nudges: A Case Study of Energy Use Social Comparisons*, 11 AM. ECON. J. 236, 238–39 (2019).

[33] *See id*. at 269.

The fourth approach is to identify consumers' willingness to pay.[34] As a matter of abstract principle, that approach might seem to be the right one; on optimistic assumptions, it should capture the full universe of losses and gains from labels. One of its advantages is that it should capture both positive and negative welfare effects, and allow regulators to take account of people's willingness to pay *not* to receive information.[35] If people do not care about fuel economy, their willingness to pay $0 will be part of the calculation; if they gain and lose from fuel economy labels, the net number will capture both gains and losses; if they prefer not to receive the information, a negative willingness to pay will register as well.

In the context of reports about home energy use, Allcott and Kessler have asked a question about people's willingness to pay for relevant information.[36] In their valuable and provocative work, they find that on average, people are willing to pay *something* for those reports, but that the average amount that they are willing to pay is far less than the average economic savings that people enjoy as a result of the reports. One implication is that the standard evaluation greatly overstates the net welfare gain from the reports (by a factor of five). It is not clear why the willingness to pay figures are so much lower than the economic gain; why would people pay (say) $2.30 for a report that would enable them to save (say) just seven dollars?

But on reflection, the question is not so mysterious. It is plausible to speculate that the relatively lower willingness to pay reflects an assortment of welfare losses from receiving the report: the time spent reading it, the emotional tax of receiving less than good news, the time spent taking steps to reduce energy use. Whatever we think of the precise numbers given by Allcott and Kessler, willingness to pay should capture factors of this kind. In some cases, it should capture the fact that some or many people

[34] *See* Maria L. Loureiro et al., *Do Consumers Value Nutritional Labels?*, 33 EUR. REV. AGRIC. ECON. 249, 263 (2006) (finding that "on average, consumers are willing to pay close to 11 percent above the initial price to obtain cookies with nutritional labelling"); *see also id.* at 249 ("Consistent with prior expectations, our results also indicate a difference between the [willingness to pay] of individuals suffering from diet-related health problems (estimated mean 13 percent) and those who do not suffer any diet-related health problems (estimated mean 9 percent).").

[35] *See* Carline J. Charpentier et al., *Valuation of Knowledge and Ignorance in Mesolimbic Reward Circuitry*, 115 PROC. NAT'L ACAD. SCI., E7255, E7260 (2018).

[36] *See* Allcot & Kessler, *supra* note 32, at 238–39, 269.

would be willing to pay nothing for information or might even pay something not to receive it.

Of course, some people undoubtedly *enjoy* reports of the kind that Allcott and Kessler studied, which suggests that a full accounting would have to identify the hedonic benefits of receiving information. Consistent with this point, Allcott and Kessler also find a high degree of heterogeneity and emphasize the potential welfare gains of targeted policy, ensuring that the reports do not go to people who do not want them.

At the same time, willingness to pay runs into serious and perhaps insuperable normative, conceptual, and empirical challenges, some of which are distinctive to the setting of willingness to pay to obtain information, some of which involve the limits of the willingness to pay criterion in general.

The most obvious problem is that it is difficult to elicit people's *informed and unbiased* willingness to pay for labels. If you lack information, how can you know how much to pay for that information? A second challenge comes from behavioral biases. If consumers show present bias, or if they are unrealistically optimistic, they may be willing to pay too little (or in some cases too much) to receive information. A third challenge involves the potentially labile character of relevant preferences, including preferences for the very good for which information is provided. Note in this regard that when people offer their willingness to pay, they are attempting to solve a *prediction problem*. That problem may be difficult to solve, perhaps especially (but not only) when people are asked about whether they want to receive information.

In short, we may be dealing here with a possible gap between "decision utility" (the utility expected at the time of decision) and "experienced utility" (the utility actually experienced).[37] The most obvious solution would be to convey experienced utility in advance, so as to reduce the gap. At the time of choice, informed people might know what their experience will be, so that they take account of it when they are choosing. In practice, however, it may not be feasible to give people a concrete, vivid sense of their experience, especially but not only if preferences and tastes might change.

For that reason, willingness to pay measures may be a very crude proxy for the actual welfare effects of obtaining information.

[37] *See* Daniel Kahneman & Richard A. Thaler, *Anomalies: Utility Maximization and Experienced Utility*, 20 J. ECON. PERSP. 221, 221–22 (2006).

I mean this point to raise a concern about willingness to pay for information, but it applies more broadly, for example to the valuation of morbidity risks. If we see willingness to pay as an effort to solve a prediction problem, we might wonder whether it is likely to be a sufficiently accurate measure of the actual welfare effects of (say) a severe concussion, chronic bronchitis, ringing in the ears, or a nonfatal heart attack. Of course, it is true that more accurate measures may be unavailable.

IV. EXTERNALITIES

Some actual or imaginable labels are meant to protect third parties, not consumers as such. Suppose that some or many consumers are concerned about greenhouse gas emissions, and they favor labeling, or some kind of disclosure requirement, so that consumers can buy products with low emissions. Or suppose that some or many consumers care about the welfare of animals in general or certain animals in particular; because they do, they seek labels to reflect how animals were (mis)treated.

In such cases, there are two sets of benefits: (1) the benefits to consumers themselves, assuming that they would enjoy a welfare gain if their moral commitments were vindicated and (2) the benefits to third parties. The two are separate. We have seen that the right measure of (1) should be willingness to pay, but it will not be simple to elicit it. It is important to emphasize the significant challenges is quantifying both (1) and (2).

In some of these cases, the third-party effects are not obscure, and the real challenge is how to quantify them. As before, it is necessary to begin by making some projections about consumer behavior. To what extent would consumers change their purchasing habits in response? Even if that question can be answered, it would be necessary to tie any such changes to reduced costs or increased benefits for third parties. And even if that problem can be resolved, it would be necessary to quantify and monetize the resulting effects. It is no wonder that in the context of conflict minerals, the agency concluded that quantification was not possible.[38] Perhaps it should

[38] *See* Nat'l Ass'n of Mfrs. v. Sec. & Exch. Comm'n, 748 F.3d 359, 366 (D.C. Cir. 2014) ("The Commission was 'unable to readily quantify' the 'compelling social benefits' the rule was supposed to achieve: reducing violence and promoting peace and stability in the Congo.") (quoting Conflict Materials,17 C.F.R. pts. 240 & 249b (2019)).

have engaged in some form of breakeven analysis, explaining that the requirement was likely to survive cost-benefit analysis even if its effect were modest. But perhaps it lacked the information that would have allowed it to make that analysis plausible.

It should be clear that insofar as third-party effects are the reason for government intervention, a corrective tax, rather than some kind of label, is the preferred response. But disclosure might be feasible when a corrective tax is not. If so, government might want to decide whether to focus on consumer savings (supposing they exist) or instead on the third-party effects. A label might have multiple objections; the fuel economy label is an example. It is designed to help consumers save money, to reduce conventional air pollutions, and to reduce greenhouse gases. One question is what kind of focus is likely to produce the largest benefits. To know that, regulators need to know what consumers care about, and how their response will translate into quantified savings.

V. TAKING STOCK

I have covered many topics in a short space, and it will be useful to bring the strands together. The question is whether environmental labels improve social welfare. To know that, we need to know their costs, which may be high. We also need to know their benefits, which include (1) the reduction of externalities, (2) the savings for consumers themselves, and (3) the welfare gains from the satisfaction of moral commitments. In theory, the analysis is reasonably straightforward. It is a matter of simple addition.

In practice, things are much more difficult. Often it is hard to know how consumers will respond to an environmental label, which makes it difficult to project (1) or (2). If we can make reasonable projections, we should be able to identify (1), but for reasons stated, the economic gains, to consumers, may overstate consumer savings, and might reasonably be treated as an upper bound. It would be a mistake to ignore (3), but regulators cannot easily capture people's willingness to pay to ensure vindication of their moral commitments (even assuming that the collective action problem can be overcome).[39]

[39] *See* Amartya Sen, *The Discipline of Cost-Benefit Analysis*, 29 J. LEGAL STUD. 931, 946 (2000).

At the present time, real solutions to the epistemic problem would require a form of magic. Breakeven analysis is not exactly magic, but it is a little like a rabbit, pulled out of a hat. More often than we might think, breakeven analysis can show that an environmental label is a good idea—or at least an excellent bet.

NOTE

DISTINGUISHING THE ANTIQUITIES ACT AND OCSLA

ALEXANDRA L. ST. ROMAIN*

INTRODUCTION

On April 28, 2017, President Trump removed the protection of 115 million acres of land from the future oil and gas leasing that was previously designated under the Outer Continental Shelf Lands Act's (OCSLA) grant of presidential authority.[1] Just a few months

* J.D. 2019, NYU School of Law. I would like to thank Professor Richard Revesz for his guidance during both the brainstorming and writing process of this Note. I would also like to thank the hardworking and dedicated staff of the Environmental Law Journal for numerous rounds of tremendously helpful edits.

[1] *See* Complaint at 20, League of Conservation Voters v. Trump, 303 F. Supp. 3d 985 (D. Alaska 2017) (No. 3:17-cv-00101-SLG); Implementing an America-First Offshore Energy Strategy, Exec. Order No. 13,795, 82 Fed. Reg. 20,815 (Apr. 28, 2017). For clarity's sake, a public land can be protected via a "withdrawal," whereby "the public domain is withdrawn or reserved for certain specific purposes and thereby segregated from the operation of various other public land laws authorizing the use or disposition of the lands." Christian Termyn, *No Take Backs: Presidential Authority and Public Lands Withdrawals,* 19 SUSTAINABLE DEV. L. & POL'Y 4, 4 (2019). Thus, removing the protections of land

later, on December 4, 2017, President Trump relied on the Antiquities Act to remove national monument protection from nearly half of Grand Staircase-Escalante and over 85 percent of Bears Ears National Monuments.[2] These actions have been interpreted as illegal affronts to public lands protection by many public lands scholars and environmental groups, and have resulted in ongoing litigation against the Trump administration.

Scholars who have written about President Trump's actions to date have emphasized the similarities between the Antiquities Act and OCSLA,[3] and the parties to the ongoing legal battles have mostly followed suit by using similar litigation strategies.[4] There are, however, marked differences between the two statute's statutory structure, purpose, and legislative history, as well as differences in presidential practices taken under the statutes. These differences are worthy of analysis; litigation challenging President Trump's actions under the Antiquities Act is ongoing in the U.S. District Court for the District of Columbia (District of Columbia) and under OCSLA in the U.S. District Court for the District of

could also be rephrased as "removing land withdrawals;" this article relies on such terminology throughout. *See id.*

[2] *See* Proclamation No. 9682, 82 Fed. Reg. 58,089, 58,093 (Dec. 8, 2017); Complaint at 5, Grand Staircase Escalante Partners v. Trump, No. 17-2591 (D.D.C. Dec. 4, 2017) [hereinafter Grand Staircase Escalante Complaint]; Proclamation No. 9681, 82 Fed. Reg. 58,081, 58084–85 (Dec. 8, 2017); CAROL HARDY VINCENT, CONG. RESEARCH SERV., R41330, NATIONAL MONUMENTS & THE ANTIQUITIES ACT 11 (2018).

[3] *See* Alejandro E. Camacho & Robert Glicksman, *A Defeat on Offshore Drilling Extends the Trump Administration's Losing Streak in Court*, CONVERSATION (Apr. 9, 2019, 6:46 AM), https://theconversation.com/a-defeat-on-offshore-drilling-extends-the-trump-administrations-losing-streak-in-court-114893. *See generally infra* Part I.

[4] *Cf.* Federal Defendants' Response to Briefs of Amici Curiae at 9, Wilderness Soc'y v. Trump, No. 1:17-cv-02587, 2019 WL 2152537 (D.D.C. Apr. 17, 2019) ("Federal Defendants disagree with the *LCV* [League of Conservation Voters] court's ultimate determination—but regardless, the decision is of limited relevance to this case."). *Compare* UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss at 25, Hopi Tribe v. Trump, No. 17-cv-2590, 2019 WL 2494161 (D.D.C. Oct. 1, 2018) (arguing that the language of the Antiquities Act is unambiguous in giving the President authority to create national monuments but not revoke prior designations), *with* Memorandum in Support of Plaintiffs' Motion for Summary Judgment at 23, League of Conservation Voters v. Trump, 363 F. Supp. 3d 1013 (D. Alaska 2018) (No. 3:17-cv-00101-SLG) ("The straightforward wording of section 12(a) leaves no room for interpolation.").

Alaska (District of Alaska). As these cases proceed, the district courts may ultimately reach different conclusions. Scholars and parties should consider the important distinctions between OCSLA and the Antiquities Act, not merely the similarities.

This Note proceeds in three parts. Part I briefly summarizes the academic literature to date, focusing on the fact that scholars tend to discuss the Antiquities Act and OCSLA as statutory parallels to each other, and thus analyze President Trump's actions taken under them similarly. Part II discusses the main differences between the Antiquities Act and OCSLA, including the differences in statutory structure, purpose, legislative history, and presidential practices under the acts (both past presidential practices and President Trump's recent actions). This Note concludes by assessing the potential likelihood of success in the ongoing litigation surrounding the Antiquities Act and OCSLA based on the distinctions addressed in Part II. This Note does not come to any conclusions regarding the likelihood of success for the plaintiffs' challenges in either case. Instead, this Note seeks to provide a foundation for distinguishing arguments involving the Antiquities Act and OCSLA in the event that plaintiffs are handed unfavorable court decisions in either district.

I. AN EMPHASIS ON THE ANTIQUITIES ACT AND OCSLA'S SIMILARITIES IN THE ACADEMIC LITERATURE

On the campaign trail, President Trump vowed to decrease public land protection in order to open more land to oil and gas extraction.[5] So, even before the President finalized the actions at issue in the ongoing OCSLA and Antiquities Act litigation, scholars had begun to weigh in on the legality of presidential modifications under the acts. In doing so, they emphasized the similarities between a President's authority to act under OCSLA and the Antiquities Act.

The vast majority of scholars argue that President Trump's actions are illegal because both statutes function as one-way

[5] *See* Jack Healy & Kirk Johnson, *Battle Lines Over Trump's Land Policy Stretch Across 640 Million Acres*, N.Y. TIMES (Nov. 18, 2016), https://www.nytimes.com/2016/11/19/us/battle-lines-over-trumps-lands-policy-stretch-across-640-million-acres.html (noting that President Trump campaigned on the promise "to push resource extraction" on public lands and beyond).

ratchets.[6] This one-way ratchet theory begins with the fundamental principle that the Property Clause of the Constitution vests Congress with the power to make all public land management decisions.[7] Therefore, both OCSLA and the Antiquities Act, which divest Congress of its Property Clause authority in specific situations, are limited delegations of authority.[8] As such, because Congress "did not explicitly delegate the power to lift these protections once in place," it reserved "the authority to undo such protections for itself."[9]

To bolster this general proposition, scholars find support in both statutes' text, purpose, and legislative history for the one-way ratchet theory. In analyzing the Antiquities Act, scholars focus on the role of the Federal Land Policy and Management Act (FLPMA). Before Congress enacted FLPMA in 1976, Presidents had modified and revoked prior presidential monument designations, but scholars argue, by enacting FLPMA, Congress "reassert[ed] public control over executive withdrawal authority."[10] Furthermore, until President Trump's modification of Bears Ears and Grand Staircase-Escalante National Monument, "no President had attempted to modify a monument since Congress enacted [FLPMA]."[11] This reading of the Antiquities Act is further supported by an examination of other statutes passed around the same time as the Antiquities Act that delegated public land decisionmaking authority to the executive, such as the Forest Service Organic Administration Act and the Pickett Act. Both of these statutes gave Presidents withdrawal authority, but also explicitly "gave the President the additional authority to revoke

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[6] *See* Jayni Foley Hein, *Monumental Decisions: One-Way Levers Towards Preservation in the Antiquities Act and Outer Continental Shelf Lands Act*, 48 ENVT'L L. 125, 129, 132–33 (2018); *see also* Termyn, *supra* note 1, at 2, 5–6.

[7] *See* Hein, *supra* note 6, at 129.

[8] *See id.*

[9] *See id.*; *see also* Termyn, *supra* note 1, at 17 ("[T]he act of returning withdrawn land to the public domain is not simply the inverse of withdrawing land in the first place. Rather it has the characteristics of a separate legislative Act, which requires a delegation of authority and an intelligible principle to guide the exercise of that authority.").

[10] *See* Termyn, *supra* note 1, at 25–26.

[11] *See* Mark Squillace, *The Looming Battle over the Antiquities Act*, HARV. L. REV. BLOG (Jan. 6, 2018), https://blog.harvardlawreview.org/the-looming-battle-over-the-antiquities-act/.

and/or modify these withdrawals."[12] Without this explicit grant of authority, scholars allege, a President does not have the power to revoke or modify a prior monument designation.

In analyzing OCSLA, scholars look to the legislative history of the Act (a 1953 Senate Report, in particular) to argue that Congress saw OCSLA as being "a one-way lever to remove lands from disposition through mineral leasing," but which does not include the power to revoke or modify prior withdrawals.[13] Scholars compare OCSLA to other statutes such as the National Marine Sanctuary Act, which explicitly allows for the creation *and* re-designation of national marine protected areas.[14] Again, this comparison is used to emphasize the argument that explicit modification and revocation authority must be granted in order for a President to exercise that power. Finally, scholars point to the history of OCSLA, noting that "[n]o [P]resident has ever reversed a withdrawal of Outer Continental Shelf areas from oil and gas leasing, other than one with an express end date, prior to the Trump administration."[15] Here, President Trump's action modified President Obama's prior *permanent* withdrawals.[16]

Although most scholars use the one-way ratchet theory to rebuke President Trump's actions to modify public lands protections, there are a few scholars who support the President's modifications, arguing that a President has the authority to change prior withdrawals. Most of this support comes from one article authored by Professors John Yoo and Todd Gaziano, which, like the

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[12] *See id.*; *see also* Termyn, *supra* note 1, at 27–28.

[13] *See* Hein, *supra* note 6, at 144; *see also* Robert T. Anderson, *Protecting Offshore Areas from Oil and Gas Leasing: Presidential Authority Under the Outer Continental Shelf Lands Act and the Antiquities Act*, 44 ECOLOGY L.Q. 727, 753 (2018).

[14] *See* Hein, *supra* note 6, at 145 ("The language of the National Marine Sanctuaries Act illustrates that when Congress sought to convey a multidirectional power to the executive branch, it did so explicitly and set forth specific procedures to guide both designations and de-designations.").

[15] *See id.* at 132.

[16] President Obama's Proclamation reserving the 115 million acres of OCS reserved the land "for a time period without specific expiration." *See id.* at 135 (quoting Memorandum on Withdrawal of Certain Areas of the United States Outer Continental Shelf Offshore Alaska from Leasing Disposition, 2015 DAILY COMP. PRES. DOC. 1 (Jan. 27, 2015)).

arguments by their adversaries, discusses the Antiquities Act and OCSLA in a single breath.[17]

Professors Yoo and Gaziano argue that "under traditional principles of constitutional, legislative, and administrative law, the authority to execute a discretionary power includes the authority to reverse it."[18] Professors Yoo and Gaziano support this statement by declaring that "there is no instance in American law in which a court has held that a grant of authority does not include the power of the relevant office holder to revoke prior uses of that power."[19] The authors further note that Presidents frequently revisit and revoke actions of prior Presidents and that scholars arguing otherwise do not provide a reasoned explanation for why the statutes at issue in Trump's revocation should be treated any differently.[20]

Yoo and Gaziano's article spends much time answering arguments made by their fellow academic scholars who oppose President Trump's use of executive power. For example, in response to scholars' reliance on FLPMA to support their reading of the Antiquities Act, Yoo and Gaziano state:

> The FLPMA's express limitation on the Secretary simply confirms the natural reading of the Antiquities Act, which grants authority to the President alone to specify the parcels of land withdrawn for any monument created pursuant to the Act. It should not be read to raise doubts about the President's authority to modify or revoke national monuments. The text creates no ambiguity or inference that Congress modified the President's authority in the Antiquities Act. The opposite reading of the text is much stronger, i.e., that Congress knew how to write express limitations and that it would have listed the President if its restriction on the Secretary of the Interior's power was intended to bind the President.[21]

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[17] *See* John Yoo & Todd Gaziano, *Presidential Authority to Revoke or Reduce National Monument Designations*, 35 YALE J. REG. 617 (2018).

[18] *Id.* at 617.

[19] *Id.* at 620.

[20] *See id.* at 633 ("Presidents have a general power to reverse a designation of national landmarks by their predecessors."); *id.* at 640 ("Presidents regularly revise or revoke hundreds of executive orders and administrative regulations throughout the administrative state. If the arguments of many scholars were correct, most administrative regulations would also operate as one-way ratchets, not subject to repeal or modification by future Presidents.").

[21] *Id.* at 652–53.

Although the above is an abridged discussion of the scholarship addressing a President's authority to modify or revoke a prior withdrawal, it is evident that scholars tend to harp on the similarities between Antiquities Act and OCSLA rather than their distinctions, discussing statutory language and past practices to support their conclusions.

Some scholars do, however, acknowledge the differences between the Antiquities Act and OCSLA. For example, in her article *Monumental Decisions: One-Way Levers Towards Preservation in the Antiquities Act and Outer Continental Shelf Lands Act*, Professor Jayni Foley Hein recognizes that "national monument status [established under the Antiquities Act] generally confers a broader set of protections than OCSLA Section 12(a), which is limited to prohibiting mineral leasing."[22] This, though, is a passing observation and not the focus of Hein's scholarship, nor the focus of other scholarship on the topic thus far. But, as will be elaborated upon below, there are significant differences between the Antiquities Act and OCSLA—differences between the statutory text and statutory structure, legislative history, underlying purpose, and presidential actions taken under the statutes—that warrant greater attention.

II. DISTINCTIONS BETWEEN THE ANTIQUITIES ACT AND OCSLA

As discussed above in Part I, many scholars have already addressed the legality of President Trump's actions taken under the Antiquities Act and OCSLA, spending much of their analyses drawing similarities between the two statutes. But, there are important distinctions between the statutes' text, structure, legislative history, purpose, along with the presidential action taken under the acts. Each of these differences will be discussed below. Ultimately, these statutory distinctions may necessitate different litigation strategies and ultimately may affect the outcome of the ongoing litigation.

A. *Statutory Text*

Much of the academic literature to date emphasizes the similarity in statutory text between the Antiquities Act and OCSLA,

22 Hein, *supra* note 6, at 137.

namely that neither statute explicitly gives a President the authority to modify or revoke prior national monument designations or OCS withdrawal. But, several distinctions exist as well between the statutory text of the two acts. It is unclear, though, whether these distinctions make it more or less likely that, in this instance, President Trump overstepped the authority granted to him by Congress under OCSLA but not the Antiquities Act, or vice-versa.

The Antiquities Act gives a President discretionary authority to "declare" national monuments and to "reserve" land to be part of the national monuments.[23] Although a President has discretionary authority to both declare and reserve, these actions are subject to certain limitations. First, a President may declare as a monument only "historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest that are situated on land owned or controlled by the Federal Government."[24] Second, a President's ability to reserve land "shall be confined to the smallest area compatible with the proper care and management of the objects to be protected."[25]

Notably, no clause in the Antiquities Act explicitly grants a President the authority to modify or revoke prior declarations of national monument designations.[26] So, a plain language reading of the actions a President may take (declaring and reserving) may be read to exclude presidential authority to take the opposite actions of revoking or abolishing national monuments.[27] This reading has led scholars and advocates alike to conclude that "President Trump's action is contrary to the Antiquities Act, which authorizes Presidents to create national monuments, but not to abolish them in whole or in part."[28]

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[23] Antiquities Act of 1906, 54 U.S.C. § 320301(a)–(b) (2012).

[24] *Id.* at § 320301(a).

[25] *Id.* at § 320301(b).

[26] *See* VINCENT, *supra* note 2, at 3.

[27] *See* Complaint at 11, Hopi Tribe v. Trump, No. 1:17-cv-02590 (D.D.C. Dec. 4, 2017) [hereinafter Hopi Complaint] (quoting Antiquities Act, § 320301(a)–(b)) (emphasis in Complaint) (internal citations omitted); *see also* Complaint at 66, Utah Dine Bikeyah v. Trump, No. 1:17-cv-02605 (D.D.C. Dec. 6, 2017) [hereinafter UDB Complaint] ("Neither § 320301(a) nor any other section of the Antiquities Act authorizes the President to revoke the national monument status of, or the protections for, objects designated under Proclamation 9558, as determined under the discretion of the establishing President.").

[28] Complaint at 3–4, Nat. Res. Def. Council, Inc. v. Trump, No. 1:17-cv-02606 (D.D.C. Dec. 7, 2017); *see also* UDB Plaintiffs' Memorandum of Points and

Yet, one could read the textual limitations written into the Antiquities Act as giving a President authority to revoke or modify a national monument's designation in certain situations. For example, perhaps a President does, in fact, have the authority to modify monuments in order to confine them "to the smallest area compatible with the proper care and management of the objects to be protected,"[29] or to ensure that the monument includes only that land that is necessary to provide "proper care and management of the objects to be protected."[30] In fact, it may be that a President not only has the authority but the *obligation* to modify monuments in this manner, as the Act specifies that these conditions "shall" be met.[31] A counter to this point is that statutory text should be read logically, assuming Congress is a reasonable entity, and it would be unreasonable, in light of the Antiquities Act purposes discussed below in Part II.D, for Congress to impose a "seesawing" of national monument status that may result from presidential modifications to or removals of national monuments.[32]

Regardless, even if one were to understand the text as allowing (or even requiring) a President to continuously monitor and limit national monuments to "the smallest area compatible with the

Authorities in Opposition to Federal Defendants' Motion to Dismiss at 26, Hopi Tribe v. Trump, No. 1:17-cv-02590-TSC (D.D.C. Nov. 15, 2018) (explaining that the plain meaning of the phrase "declare national monuments," used in Section 320301(a), is "polar opposite[]" to the phrases "revoke" or "shrink"); Termyn, *supra* note 1, at 10–11.

[29] Antiquities Act of 1906, 54 U.S.C. § 320301(b) (2012); *see also* Memorandum in Support of Federal Defendants' Motion to Dismiss, *supra* note 4, at 3.

[30] Antiquities Act, 54 U.S.C. § 320301(a)–(b).

[31] *Id.* § 320301(b); *see also* Memorandum in Support of Federal Defendants' Motion to Dismiss, *supra* note 4, at 30 ("It would be nonsensical to interpret this compulsory instruction from Congress to 'confine' monument reservations as not encompassing the authority to modify monument reservation boundaries when the President finds that 'the smallest area' compatible with protection is smaller than the area presently reserved. The President cannot fully comply with Congress's instruction to ensure that monument reservations remain 'confined' to the smallest area without the power to revisit prior reservations.").

[32] *See* NRDC Plaintiffs' Opposition to Federal Defendants' Motion to Dismiss at 2, Hopi Tribe v. Trump, No. 1:17-cv-2590-TSC (D.D.C. Nov. 15, 2018); *see also* UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 31 ("If . . . the statute permits the President to reduce the size of previously-designated national monuments, it also must require him to continually revisit the boundaries of every existing monument and parcel.").

proper care and management of the objects to be protected," it is difficult to argue that President Trump did so in the instance of Bears Ears and Grand Staircase-Escalante, as his proclamations removed many "objects of scientific and historic interest" from protection in both national monuments.[33]

Section 12(a) of OCSLA, 43 U.S.C. § 1341(a) reads: "The President of the United States may, from time to time, withdraw from disposition any of the unleased lands of the outer Continental Shelf."[34] So, unlike the Antiquities Act, there are no apparent limitations on the President's ability to withdraw OCS lands from oil and gas drilling. As is the case in the Antiquities Act, nothing in the text of Section 12(a) gives a President explicit authority to revoke his own or prior presidential withdrawals.[35] So, in reading the express language of Section 12(a), it seems that a President is authorized to withdraw land at his will but not to revoke those withdrawals.[36]

It is possible to argue, however, that the discretionary nature of the statute "carries with it a power to revise action previously taken under the delegated authority."[37] This can be inferred from the use of the word "may," which perhaps gives a President broad discretionary authority, and "from time to time," which could be read as allowing a President to modify prior withdrawals

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[33] *See* UDB Complaint, *supra* note 27, at 64–65; Grand Staircase Escalante Complaint, *supra* note 2, at 3–5.

[34] Outer Continental Shelf Lands Act (OCSLA) of 1953 § 12(a), 43 U.S.C. § 1341(a) (2012).

[35] Termyn, *supra* note 1, at 10 (arguing that Section 12(a) "is silent as to undoing actions taken under withdraw authority").

[36] *See* Memorandum in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 4, at 22–23 ("On its face, it does one, and only one, thing. It authorizes the President . . . to protect resources and areas from extractive activity offshore. It does not authorize the reverse—the dismantling of established protections there."); *see also id.* ("The straightforward wording of section 12(a) leaves no room for interpolation.").

[37] *See* OCSLA, 43 U.S.C. § 1341(a); *see also* Defendants' Reply Memorandum in Support of their Motion for Summary Judgment and Opposition to Plaintiffs' Motion for Summary Judgment at 7–8, League of Conservation Voters v. Trump, 363 F. Supp. 3d 1013 (D. Alaska 2019) (No. 3:17-cv-00101-SLG) (explaining that if "from time to time" does not allow a President to modify prior withdrawals, the term is rendered "superfluous"); Reply in Support of Intervenor-Defendant American Petroleum Institute's Motion to Dismiss at 16, League of Conservation Voters v. Trump, 303 F. Supp. 3d 985 (D. Alaska 2018) (No. 3:17-cv-0101-SLG).

occasionally, as he deems fit.[38] This argument seems like a stretch, however; a seemingly more persuasive interpretation of this phrasing, based on the plain meaning of the text, is that it dictates the frequency with which a President can exercise Section 12(a) authority, not the type of authority it grants.[39] So, "from time to time" allows a President to withdraw land whenever he pleases, and "may" emphasizes that this authority is discretionary rather than mandatory.

There also may be reason to give credence to the use of the word "withdraw" in Section 12(a) as opposed to the term "reservation" as used in other land management statutes. In other statutory contexts, "withdraw" indicates a desire to "preserv[e] the status quo while Congress or the executive decides on the ultimate disposition of the subject lands."[40] So, "withdraw" does not necessarily indicate permanency. "Reserve," on the other hand, "goes a step further: it not only withdraws the land from the operation of the public land laws, but also dedicates the land to a particular purpose."[41] So, if a land is given "reserve" status, it is more permanently designated. Thus, the argument goes, the fact that Congress used "withdraw" in OCSLA Section 12(a) means that it understood a President's authority to be temporary as opposed to permanent, allowing for reversals of prior withdrawals. There is a dispute, however, about whether this distinction between withdrawal and revocation authority still existed at the time that OCSLA was passed.[42] For example, in the Pickett Act of 1910, another statute that delegated public lands protection authority to the President and which was passed decades prior to OCSLA, Congress

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[38] *See* OCSLA, 43 U.S.C. § 1341(a).

[39] *See* Reply in Support of Plaintiffs' Motion for Summary Judgment at 4, *League of Conservation Voters*, 363 F. Supp. 3d 1013 (No. 3:17-cv-00101-SLG); *see also id.* at 5 ("The plain congressional intent was the phrase's plainest meaning: to emphasize that the authority might be exercised with whatever frequency was thought needed.").

[40] American Petroleum Institute's Combined Memorandum in Opposition to Plaintiffs' Motion for Summary Judgment, and in Support of Cross-Motion for Summary Judgment at 13, *League of Conservation Voters*, 303 F. Supp. 3d 985 (No. 3:17-cv-00101-SLG) (quoting S. Utah Wilderness All. v. Bureau of Land Mgmt., 425 F.3d 735, 785 (10th Cir. 2005)).

[41] *Id.*

[42] *See* Reply in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 39, at 6 ("Although the terms long ago referred to different actions, Congress ceased assuming distinct meanings decades before it enacted OCSLA in 1953.").

specified that a President's withdrawal authority should be "temporary."[43] Thus, if withdrawals were always to be temporary, the inclusion of this language in the statutory text would be surplusage.[44] Moreover, the simple fact that a President's withdraw authority is temporary does not, in and of itself, mean that the President has the authority to revoke a designation.

In sum, the above textual analysis illuminates the distinctions between the statutory text of the Antiquities Act and OCSLA. The statutory text of the Antiquities Act provides several checks on a President's ability to declare national monuments, whereas OCSLA provides a President untethered withdrawal authority. The Antiquities Act cabins a President's authority to declare and reserve monuments in a clear-cut manner, restricting a President's authority to withdraw for certain purposes ("objects of historic or scientific interest") and to certain sizes ("the smallest area compatible with the proper care and management of the objects to be protected").[45] In OCSLA, on the other hand, a President seems free to withdraw any size of land for any purpose at any time. Whether these restrictions in the Antiquities Act grant authority, or even impose a duty, on a President to modify prior national monument declarations is up for debate; but, it is obvious that these restrictions should, at the very least, have consequences on the manner in which initial presidential action occurs. In contrast, an argument could be made that because OCSLA seems to give nearly untethered authority to the President to withdraw OCS lands, he should be given more leeway to modify prior withdrawals, which may be supported by the fact that Section 12(a) uses the term "withdraw" rather than "reserve."

B. *Statutory Structure*

In engaging with the similarities between the Antiquities Act and OCSLA, many scholars have failed to take note of the fact that the statutory structures of the Antiquities Act and OCSLA differ: the Antiquities Act has a simple, straightforward statutory structure, whereas OCSLA's statutory scheme is complex and involves multiple statutory actors.

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43 *Id.*

44 *See id.*

45 *See* Antiquities Act of 1906, 54 U.S.C. § 320301(a)–(b) (2012); Hein, *supra* note 6, at 132.

The Antiquities Act is a short, simple statute with a clear purpose and statutory structure. The President is tasked with ultimate decisionmaking power to declare a national monument. Following such a designation, the Secretary of the Interior (the Secretary) is to undertake certain measures to protect lands and objects of particular historical significance.[46]

The statutory structure in OCSLA, however, is much more complex. OCSLA tasks the Secretary with managing oil and gas development of the Outer Continental Shelf (OCS).[47] Although the statute delegates to the Secretary the majority of the authority under OCSLA, some power is reserved for the President. The structure of OCSLA is complicated, but generally powers are divided into two sections: Section 8 and Section 12. Section 8 promotes leasing of the OCS, giving the Secretary the authority to approve leases, whereas Section 12 could be read as "entirely protective," giving the President the power to withdraw lands from leasing.[48]

Thus, OCSLA has a much more in-depth statutory scheme than the Antiquities Act, providing a variety of complex statutory provisions. Under OCSLA, furthermore, the vast majority of actions to be taken under the statutory scheme fall in the hands of the Secretary,[49] the President's responsibilities in Section 12 only being the right of first refusal and the right to withdraw land from leasing.[50] The Antiquities Act is simpler, providing the President with the ultimate decisionmaking power to declare a national monument or not. The Secretary does have some authority in the Antiquities Act setting as well, but only following a President's declaration.

This difference in statutory structure could lead one to conclude that OCSLA is meant to be a more limited delegation of authority to a President. The way OCSLA delegates decisionmaking authority to different actors in different sections of the statute suggests that the Secretary possesses the authority to lease while the President is

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46 *See* Antiquities Act, 54 U.S.C. § 320102.

47 *See generally,* OCSLA, 43 U.S.C. § 1331 (2012).

48 League of Conservation Voters v. Trump, 363 F. Supp. 3d 1013, 1025 (D. Alaska 2019).

49 *See, e.g.*, OCSLA, 43 U.S.C. § 1334(a) ("The Secretary shall administer the provisions of this subchapter relating to the leasing of the outer Continental Shelf, and shall prescribe such rules and regulations as may be necessary to carry out such provisions.").

50 *See* id. § 1341(a).

given only the authority to withdraw land from leasing, with neither actor able to take on the role of the other.[51] Under this interpretation of OCSLA, a President could not do as President Trump has and revoke a withdrawal which, practically speaking, is opening up land for leasing. This same restraint does not exist on presidential action in the Antiquities Act setting, which could lead one to conclude that, at least based on a reading of the statutory structure, President Trump's actions under the Antiquities Act are more acceptable.

C. *Legislative History*

The legislative history of the Antiquities Act indicates that Congress considered but rejected presidential revocation authority, whereas no similar rejection occurred in OCSLA.

After six years of congressional debate, the Antiquities Act was passed in 1906. During this time,

> Congress considered bills that would have granted the Executive Branch creation authority but no elimination authority, as well as bills that would have granted the Executive Branch both creation authority and elimination authority. The final version of the Act, however, clearly rejected the proposals that would have delegated to the Executive Branch the authority to eliminate as well as create monument protections.[52]

In the end, nothing in the final Act "suggests that Congress recognized a . . . need for the Executive to be able to *de*-designate national monuments."[53] That being said, there were discussions leading up to the passage of the Antiquities Act that stressed the "importance of confinement" of monument size[54] which could be read as indicating that, although not expressed in the final text of the statute, some members of Congress felt the need to constrain presidential authority in some significant way.

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[51] *See League of Conservation Voters*, 363 F. Supp. 3d at 1025.

[52] Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment at 29, Grand Staircase Escalante Partners v. Trump, No. 1:17-cv-02591, 2018 WL 3820015 (D.D.C. Jan. 20, 2018) (internal citations omitted).

[53] UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 27.

[54] Memorandum in Support of Federal Defendants' Motion to Dismiss, *supra* note 4, at 29; *see* Memorandum in Support of Defendant-Intervenor's Motion to Intervene at 1, Hopi Tribe v. Trump, Nos. 1-17-cv-2590-TSC, 1:17-cv-2605-TSC, 17-cv-2606-TSC, 2019 WL 2494159 (D.D.C. Jan. 11, 2019) (citing H.R. REP. NO. 59-2224, at 1 (1906)).

In OCSLA, though, the pertinent 1953 Senate Report contains no such explicit discussion.[55]

OCSLA's failure to explicitly address whether a President could revoke prior withdrawals may be a result of the fact that it was clear, from the prior public land delegations previously passed, that presidential revocation authority had to be explicitly granted from Congress.[56] The ambiguity present in OCSLA's legislative history, as a result of the explicit failure to discuss whether withdrawal authority includes the authority to reevaluate prior withdrawals, is not present in the Antiquities Act, because of the explicit

[55] *See* Hein, *supra* note 6, at 144; *League of Conservation Voters*, 363 F. Supp. 3d at 1026 n.67, 1029.

[56] Both OCSLA and the Antiquities Act were passed against a similar backdrop of prior statutes delegating public land management authority. These statutes all seem to indicate that a President's revocation and modification authority is not implicit in the statutory text, and that instead "Congress used clear language to delegate the authority to undo federal lands classifications." Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment, *supra* note 52, at 30. For example, Congress amended the Sundry Civil Appropriations Act of 1897, another statute giving the President authority to reserve lands passed prior to both the Antiquities Act and OCSLA, to include language allowing the President to modify prior creations of forest reserves. *See id*. at 31. During the House debates prior to the passage of that amendment, the principal author of the Antiquities Act made statements explaining that explicit modification authority was needed, because that power was not inherent. *See id.* at 31–32. Similarly, the Newlands Reclamation Act of 1902, again another statute that granted the executive land management authority, explicitly granted the Secretary the authority to restore any previously withdrawn lands. This statutory grant creates an inference that without the explicit grant of authority to reevaluate prior land withdrawals, modification authority would not be authorized by Congress. *See id.* at 32. Finally, the Forest Service Organic Act was passed with the explicit purpose of giving a President the authority to modify mistakes in prior land designations. The initial statutory authority gave the President the power to reserve public land but did not explicitly grant the authority to revoke or modify a withdrawal. *See* Tribal Plaintiffs' Response to Federal Defendants' Motion to Dismiss at 31, *Hopi Tribe*, Nos. 1-17-cv-2590-TSC, 1:17-cv-2605-TSC, 17-cv-2606-TSC, 2019 WL 2494159. But, after President Cleveland reserved land in 1887 only to realize he had made a factual mistake in the designation, Congress passed the Forest Service Organic Act because it "shared the view that the President's authority to reserve national forests did not include a correlative power to revoke or modify them." *Id.* at 31–32. These three examples make it relatively clear that explicit statutory language is required to grant the President modification or revocation authority of prior land designations and withdrawals. *See* Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment, *supra* note 52, at 30 (explaining that in prior statutes "Congress used clear language to delegate the authority to undo federal lands classifications").

congressional discussion leading up to its passage of the lack of revocation authority. Because of this specific discussion in the Antiquities Act setting, it seems clearer in the Antiquities Act setting—as compared to the OCSLA setting—that a President lacks the authority to modify or revoke land designations.

An additional complication in OCSLA's legislative history stems from the Supreme Court's 1915 decision in *United States v. Midwest Oil Co.*, holding that a President had the authority to withdraw public land from oil and gas drilling when that withdrawal served the public interest.[57] The Court in *Midwest Oil* explicitly stated that "'[t]he power of the Executive, as agent in charge, . . . need not necessarily be expressed in writing.'"[58] Thus, based in *Midwest Oil*'s holding, it could be argued that Congress enacted OCSLA with this clear statement from the Supreme Court in mind and so meant to include, via implication, authority for the President to modify or revoke prior withdrawals. But, because the Antiquities Act was promulgated prior to the *Midwest Oil* decision, no such statement indicating the Supreme Court's perspective on implicit executive power existed. So, this implicit authority should not be assumed in the Antiquities Act context.

Nevertheless, there are some ways to distinguish the situation in *Midwest Oil* from Trump's revocations at issue in the ongoing litigation. First, in *Midwest Oil*, there were 335 prior executive orders at issue, which the Court used to support its conclusion that executive practice was "longstanding," and thus congressional acquiescence could be implied.[59] Here, however, no such congressional acquiescence exists, as President Trump's actions are unprecedented: "The eighteen prior modifications are clearly distinguishable, either because they purported to rely on a separate source of executive power, or because they were meant to improve protection of monument resources by correcting survey errors or

[57] *See* Reply in Support of Intervenor-Defendant American Petroleum Institute's Motion to Dismiss at 16, *League of Conservation Voters*, 303 F. Supp. 3d 985 (No. 3:17-cv-0101-SLG).

[58] *Id.* at 18 (quoting United States v. Midwest Oil, 236 U.S. 459, 474 (1915)).

[59] *See* Reply in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 39, at 16 ("While *Midwest Oil* holds that congressional acquiescence to a longstanding executive practice of withdrawals can constitute an implicit delegation of its Proper Clause authority, nothing of the sort exists on the outer continental shelf.").

descriptions of monument resources."[60] Second, Congress expressly overruled *Midwest Oil* when it passed FLPMA in 1976.[61] Prior to FLPMA, "the Executive had claimed extensive authority in this area."[62] Congress enacted FLPMA as a reaction to this authority, and by doing so "confirmed that the President has no authority, implied or otherwise, to revoke or modify national monuments once they have been established."[63] Thus, *Midwest Oil*'s statements about congressional acquiescence could be deemed no longer relevant as they occurred prior to FLPMA. Regardless, *Midwest Oil* muddies OCSLA's legislative history in a way that does not affect the Antiquities Act's legislative history.

Because the Antiquities Act's legislative history addressed and denied presidential authority to revoke or modify prior national monument designations, parties challenging the legality of Trump's modifications to Bears Ears and Grand Staircase-Escalante will be able to make a stronger case that presidential revocations were clearly considered by Congress and rejected. On the other hand, the same strong argument does not exist in the OCSLA setting because of a lack of explicit discussion in the legislative history; this ambiguity is further magnified by the Supreme Court's holding in *Midwest Oil*.

D. *Statutory Purposes*

The Antiquities Act and OCSLA have distinct purposes. The primary purpose of the Antiquities Act is to provide speedy, permanent land protection, while OCSLA's primary purpose is to promote development.

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[60] UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 41; *see also id.* at 3 ("No President has ever reduced a prior President's designation so dramatically based simply on disagreement with the prior President's judgment that the area of the monument should be 'conserve[d] . . . for the enjoyment of future generations.'") (quoting Alaska v. United States, 545 U.S. 75, 103 (2005)).

[61] *See* Reply in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 39, at 16; FLPMA, Pub. L. No. 94-579 § 704(a), 90 Stat. 2743, 2792 (1976) ("[T]he implied authority of the President to make withdrawals and reservations resulting from acquiescence of the Congress (U.S. v. Midwest Oil Co., 236 U.S. 459) . . . [is] repealed.").

[62] UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 28.

[63] *See* Hopi Complaint, *supra* note 27, at 11.

The Antiquities Act was passed in 1906 in response to concerns regarding theft and destruction of objects of particular archeological importance. The Act's purpose is to protect "specific objects, particularly objects of antiquities such as cliff dwellings, pueblos, and other archeological ruins."[64] At the time the Antiquities Act was enacted, there were "increasing concerns regarding the plundering and other destruction of sensitive sites."[65] Laws at the time were incapable of preventing this destruction, because they relied on congressional action in order to permanently protect land, and congress does not act within the quick timeframe necessary to halt imminently destructive behaviors.[66] Thus, the most logical understanding of the Antiquities Act's purpose is that it was meant "to provide the Executive branch with a speedy means to accomplish permanent protection."[67] This understanding of statutory purpose favors a reading of the Antiquities Act that would not allow a President to modify or revoke national monument designations as President Trump has attempted to do.

But, this purpose may be called into question when comparing national monument designation to national park designation. Congress may elevate national monuments to national park status, and there is no dispute that national parks ensure permanent protection of the land.[68] Thus, perhaps it could be argued that permanency can be achieved only through congressional designation of national parks, not through executive designation of national monuments.[69] And in this regard, the main purpose of the Antiquities Act—providing the President with the authority to act quickly—is still protected. Thus, upon comparing the purpose of national monuments to national parks, it is not as clear that a President should not be able to modify national monument status. That being said, there can always be more than one way of achieving a goal, and it seems more accurate to understand national monument

64 VINCENT, *supra* note 2, at 1, 6.

65 Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment, *supra* note 52, at 26–27.

66 *See id.*

67 *Id.* at 27.

68 *See* Defendant-Intervenors' Reply in Support of Defendants' Motion to Dismiss at 2, Hopi Tribe v. Trump, No. 1:17-cv-02590-TSC (D.D.C. filed Dec. 12, 2018).

69 *See id.* at 2, 11.

designation as an alternative means of establishing permanent protection of lands to congressional designation of national parks.

Alternatively, OCSLA's stated purpose is to promote "expeditious and orderly development, subject to environmental safeguards, in a manner which is consistent with the maintenance of competition and other national needs."[70] Initially, OCSLA's purpose was specifically focused on promoting oil and gas leasing, but in 1978, the Act was amended to add "explicit environmental protections to the leasing process"[71] and similar protections to pre-leasing exploratory activities.[72] For example, the 1978 Amendments added a four-stage leasing process, which prohibited leasing of land that would be "unduly harmful to aquatic life in the area, result in pollution, create hazardous or unsafe conditions, unreasonably interfere with other uses of the area, or disturb any site, structure, or object of historical or archeological significance."[73]

So, it seems clear that the broad purpose of OCSLA is to make "available its mineral resources for development" and giving the President authority to alter prior withdrawals could be interpreted to promote such purpose.[74] That being said, as distinct from the broader purpose of the Act, OCSLA Section 12(a), which gives the President the authority to withdraw land from leasing, seems to be specifically targeted at protecting and preserving lands, and the 1978 Amendment seemed to have the goal of ensuring that environmental concerns were properly considered. This should not be ignored in interpreting a President's authority to modify or revoke withdrawals under OCSLA.

The primary purposes of the Antiquities Act and OCSLA are directly opposite. The purpose of the Antiquities Act is to protect

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70 OCSLA, 43 U.S.C. § 1332(3) (2012).

71 Anderson, *supra* note 13, at 749, 751–52.

72 *See id.* ("In addition, the 1978 amendments added detailed environmental protections to OCSLA. For example, exploration activity under an OCS lease may not occur if the Secretary of the Interior finds that the activity 'would probably cause serious harm or damage to life (including fish and other aquatic life), to property, to any mineral . . . , to the national security or defense, or to the marine, coastal, or human environment.'") (quoting OCSLA, 43 U.S.C. § 1334(a)(2)(A)(i)).

73 OCSLA, 43 U.S.C. § 1340(g)(3).

74 Memorandum in Support of Defendants' Motion to Dismiss Pursuant to Federal Rule of Civil Procedure 12(b) at 5, League of Conservation Voters v. Trump, 303 F. Supp. 3d 985 (D. Alaska 2018) (No. 3:17-cv-00101-SLG).

and preserve lands from, among other things, resource extraction.[75] In contrast, OCSLA is meant to make lands available to "exploration, development, and production of the minerals of the Outer Continental Shelf," albeit "subject to environmental safeguards."[76] These purposes may influence a court's interpretation of presidential statutory authority. For example, a court may determine that in order to effectuate the Antiquities Act's purpose, all prior presidential protections should be deemed to be permanent, subject only to congressional modifications as needed. In order to effectuate OCSLA's purpose, however, a President may have the authority to modify prior withdrawals as long as he is properly taking environmental concerns into account as dictated by the 1978 Amendment.

E. *Post-Statutory Enactment Executive Action*

1. *Executive Action Prior to President Trump*

Many Presidents have modified national monuments in the past by relying on the Antiquities Act, although it is possible to distinguish these actions from President Trump's modification of Bears Ears and Grand Staircase-Escalante. But, no President has modified ongoing OCS withdrawals under OCSLA.

In the Antiquities Act setting, "[p]residents have eliminated lands from existing monuments on at least eighteen occasions."[77] Thus, there is clear precedent for President Trump's actions in the Antiquities Act context. It is possible, however, to distinguish these prior presidential actions from President Trump's in several regards. First, even among other national monument alterations, President Trump's removal of land from Bears Ears and Grand Staircase-Escalante is more dramatic and gave drastically different reasons than other potentially similar presidential actions.[78] Second,

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[75] Antiquities Act of 1906, 54 U.S.C. § 320101 (2012) ("It is declared that it is a national policy to preserve for public use historic sites, buildings, and objects of national significance for the inspiration and benefit of the people of the United States.").

[76] OCSLA, 43 U.S.C. § 1332.

[77] Memorandum in Support of Federal Defendants' Motion to Dismiss, *supra* note 4, at 7.

[78] UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 41; *see also* Memorandum in Support of Federal Defendants' Motion to Dismiss, *supra* note

all of these prior modifications occurred before the enactment of FLPMA. As discussed previously, FLPMA established a general presumption against implied delegations of congressional public lands management authority to Presidents, which, it could be argued, was integrated into the Antiquities Act upon its enactment.[79] Thus, even if Presidents had the authority to modify prior presidential delegations before FLPMA was enacted, they no longer have the authority to do so.

This interpretation of FLPMA, however, is up for debate. First, FLPMA discusses the Secretary's public land management authority rather than the President's, so it is possible that despite FLPMA's clear purpose, the fact that Congress did not explicitly reference presidential authority might be interpreted to mean that the President's Antiquities Act authority was not impacted by FLPMA. Second, FLPMA expressly overruled many land management statutes, but did not outright overrule the Antiquities Act. This too could be interpreted to mean that Congress embraced the Antiquities Act, and its prior monument designations as well as prior monument alterations by Presidents, in enacting FLPMA. Thus, it appears that Presidents have acted in ways similar (if not identical) to President Trump in modifying national monuments status of prior land designations.

The prior actions in the Antiquities Act setting cannot alone support the legality of President Trump's modifications to Bears Ears and Grand Staircase-Escalante National Monuments—the prior modifications were never challenged in court, after all—but they do stand in stark contrast to the unprecedented nature of his actions in the OCSLA context. In the OCSLA context, "no President

4, at 3 ("No President has ever reduced a prior President's designation so dramatically based simply on disagreement with the prior President's judgment that the area of the monument should be 'conserve[d] . . . for the enjoyment of future generations.'") (quoting Alaska v. United States, 545 U.S. 75, 103 (2005)). *See also* UDB Plaintiffs' Memorandum of Points and Authorities in Opposition to Federal Defendants' Motion to Dismiss, *supra* note 28, at 41("The eighteen prior modifications are clearly distinguishable, either because they purported to rely on a separate source of Executive power, or because they were meant to improve protection of monument resources by correcting survey errors or descriptions of monument resources.").

[79] *See* Memorandum in Support of Plaintiffs' Motion for Partial Summary Judgment, *supra* note 52, at 36.

until now has purported to revoke a permanent withdrawal."[80] There have been a few prior modifications, but all of these were modifications of time-limited withdrawals, whereas the OCS withdrawals that President Trump modified (President Obama's prior withdrawals) were of a permanent duration.[81] In sum, there are distinctions in the way that past Presidents have relied on the Antiquities Act and OCSLA that may be relevant in the success of a challenge to President Trump's actions taken under the statute.

2. *President Trump's Actions*

Although President Trump's actions taken under the Antiquities Act and OCSLA have been compared by most, the actions are distinguishable in notable ways. For one, President Trump's declarations modifying Bears Ears and Grand Staircase-Escalante National Monuments are accompanied by detailed explanations, whereas the declarations modifying prior withdrawals under OCSLA are not. Additionally, President Trump's modifications under the Antiquities Act have much more immediate impacts than his modifications under OCSLA.

President Clinton designated Grand Staircase-Escalante in 1996 after finding that 1.7 million acres of "geological and historic treasures, including unique paleontological resources found nowhere else in the world, and vividly beautiful landscapes" required protection due to threats from coal mining and related activities.[82] Following President Clinton's designation, Congress added 200,000 acres to the monument after the federal government acquired additional land from the state of Utah.[83] Upon designating Grand Staircase-Escalante, BLM's management of the area changed dramatically, with the agency creating a Monument Management Plan to ensure "that the protective purposes for which the Monument was designated [were] fulfilled and that all future activities on the Monument conform[ed] to the management plan."[84]

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[80] Reply in Support of Plaintiffs' Motion for Summary Judgment, *supra* note 39, at 13.

[81] *See id.* at 17. For example, although President George W. Bush did amend a prior OCS withdrawal by President Clinton, that withdraw was only temporary from the get go and Congress let the funding for the withdrawal lapse. *See id.*

[82] Complaint for Injunctive and Declaratory Relief at 4, Wilderness Soc'y v. Trump, No. 1:17-cv-02587 (D.D.C. Dec. 4, 2017) (internal citations omitted).

[83] *See* Complaint, *supra* note 2, at 25.

[84] Complaint for Injunctive and Declaratory Relief, *supra* note 82, at 28.

Then, in 2016, President Obama signed Proclamation 9558, designating 1.35 million acres of land for the creation of Bears Ears National Monument.[85] Bears Ears is "home to Native peoples since time immemorial" and "contains hundreds of thousands of objects of historic and scientific importance, many traditional cultural properties, and many sacred sites."[86] Due to its immense importance, and in a showing of unprecedented unity, five tribes (the Navajo, Hopi, Zuni, Ute Indian and Ute Mountain Ute) formed the Bears Ears Inter-Tribal Coalition in an effort to urge President Obama to designate the land.[87] Upon designation of the area, President Obama continued to honor the tribes' connections to the land by creating the Bears Ears Commission, comprised of tribal leaders, and by requiring the Secretary to include the Commission in the decisionmaking surrounding development and management plans of Bears Ears.[88] Among other protections, President Obama's designation withdrew Bears Ears from future oil and gas leasing and development.[89] But, unlike Grand Staircase-Escalante, no management plan was in place when President Trump revoked the monument's designation.[90]

Despite these well-reasoned designations, on April 26, 2017, President Trump issued Executive Order 13,792 which "directed the Secretary of the Interior to review all national monuments designated or expanded after January 1, 1996, that either included more than 100,000 acres of public land or for which the Secretary determines inadequate 'public outreach and coordination with

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[85] *See* Hopi Complaint, *supra* note 27, at 1, 3; UDB Complaint, *supra* note 27, at 32.

[86] Hopi Complaint, *supra* note 27, at 2.

[87] *See id.* at 2, 16.

[88] *See* UDB Complaint, *supra* note 27, at 31; *see also id.* at 35 ("The recent designation of the Bears Ears National Monument through Proclamation 9558 is the product of years of public advocacy and engagement by Plaintiffs, tribal nations, and other groups with interests in protecting the cultural, historical, and ecological heritage of southeastern Utah.").

[89] *See id.* at 31–32.

[90] *Compare* Notice of Intent To Prepare Resource Management Plans for the Grand Staircase-Escalante National Monument, 83 Fed. Reg. 2179, 2179 (Jan. 16, 2018) (noting the proposed plans will replace existing plans), *with* Notice of Intent To Prepare Monument Management Plans for the Bears Ears National Monument, 83 Fed. Reg. 2181, 2182 (Jan. 16, 2018) (noting no such replacement).

relevant stakeholders occurred.'"[91] After a short (sixty-day) public comment period, where the Department of the Interior received nearly three million comments regarding twenty-seven monuments that it planned to review, Ryan Zinke, then-Secretary, recommended that President Trump reduce the size of four monuments and modify the allowed uses of others.[92]

Zinke recommended reductions to both Grand Staircase-Escalante and Bears Ears National Monuments. This did not come as a surprise: it is likely that the date specified in President Trump's Executive Order, "all [p]residential designations or expansions of designations under the Antiquities Act made since January 1, 1996,"[93] was deliberately selected to include Grand Staircase-Escalante;[94] and while Secretary Zinke had 120 days to review most monument designations, he was given just forty-five days to review Bears Ears.[95]

On December 4, 2017, President Trump issued Proclamation 9682 which "modified and reduced" Grand Staircase-Escalante to 1,003,863 acres, claiming that this now confined the boundary of the monument "to the smallest area compatible with the proper care and management of the objects to be protected."[96] This proclamation removed nearly half of Grand Staircase-Escalante's prior area from protection;[97] President Trump claimed that the removed land was "adequately protected under other laws, not of unique or distinctive scientific or historic significance, and/or not under threat of destruction."[98] In addition to removing land from protection—lands which "contain numerous sensitive resources, including objects specifically identified in the 1996 Proclamation"[99]—President Trump's proclamation also changed the management of the remaining lands: beginning on February 2, 2018, the remaining area of Grand Staircase-Escalante was opened

91 Hein, *supra* note 6, at 139 (quoting Exec. Order No. 13,792, 82 Fed. Reg. 20,429 (May 1, 2017)).

92 *See id.* at 139–40.

93 Exec. Order No. 13,792, 82 Fed. Reg. 20,429 (Apr. 26, 2017).

94 Complaint, *supra* note 2, at 41.

95 Exec. Order No. 13,792, 82 Fed. Reg. at 20,430.

96 Proclamation No. 9682, 82 Fed. Reg. 58,089, 58,093 (Dec. 8, 2017).

97 Complaint, *supra* note 2, at 5.

98 VINCENT, *supra* note 2, at 22.

99 Complaint, *supra* note 2, at 46.

up to mineral leasing, vehicular use on roads, ecological restoration, and active vegetation management.[100]

Similarly, on December 4, President Trump issued Proclamation 9681,[101] which reduced Bears Ears National Monument by 1.15 million acres (an eighty-five percent reduction from its original size) and established two noncontiguous units of land within the remaining monument area.[102] Despite Secretary Zinke's acknowledgement that public comments favored keeping Bears Ears' initial designation, Zinke still recommended reducing the area of the monument based on factors such as the "monuments' effect on private land and on extractive uses such as grazing, mining, and timber production"—factors that are not listed anywhere in the Antiquities Act.[103] And President Trump did just that. Similar to the Grand Staircase-Escalante reduction, President Trump claimed that the Bears Ears reduction was warranted because "objects removed from the 2016 monument [were] sufficiently protected under other authorities and/or not unique, not of significant scientific or historic interest, or not threatened so as to require protection in the monument."[104] Also, as was the case in the Grand Staircase-Escalante reduction, President Trump removed protections on the land still in the monument: along with opening Bears Ears to vehicular travel, road maintenance, livestock grazing, and vegetation management, the revocation no longer requires the federal government to consult tribal governments on land management decisions for one of the two units.[105]

In contrast to his national monument modifications, President Trump's decision to remove prior protected OCS lands was accompanied by little explanation. Relying on Section 12(a) of OCSLA, President Trump withdrew OCS lands that were

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100 *See id.* at 5–6.

101 *See* Proclamation No. 9681, 82 Fed. Reg. 58,089 (Dec. 8, 2017) (modifying the Bears Ears National Monument).

102 *See* VINCENT, *supra* note 2, at 11; Complaint, Hopi Tribe, *supra* note 27, at 3; *see also* Proclamation 9681, 82 Fed. Reg. at 58,081 (President Obama establishing 1.35 million acres as Bears Ears National Monument); *id.* at 58,085 (President Trump excluding approximately 1,150,860 acres from the Monument); *id.* at 58,087 (map identifying the non-contiguous Indian Creek and Shash Jáa units).

103 *See* Antiquities Act of 1906, 54 U.S.C. §§ 320301–03 (2012); Complaint, Nat. Res. Def. Council, Inc., *supra* note 28, at 38.

104 VINCENT, *supra* note 2, at 22.

105 UDB Complaint, *supra* note 27, at 54–55.

previously permanently designated by President Obama. During his time as President, President Obama withdrew 115 million total acres of OCS in both the Arctic and the Atlantic from future oil and gas leasing "for a period without specific expiration."[106] According to President Obama, this withdrawal was warranted in order "to protect marine wildlife and habitat, and provide long-term opportunities for research, recreation, and exploration."[107]

On April 28, 2017, however, President Trump issued an Executive Order revising several of President Obama's prior protections of OCS land.[108] The Executive Order, entitled "Implementing an America-First Offshore Energy Strategy," makes it the United States' policy to "encourage energy exploration and production, including on the Outer Continental Shelf."[109] In particular, section 5 of the Trump Order changed the language in the Obama Order (withdrawing the 115 million acres) to reflect the state of protection prior to Obama's permanent withdrawal, thereby, in effect, revoking protection from future oil and gas leasing that President Obama put into place.[110] Additionally, the Trump Order mandated reconsideration of the current leasing plans in place in order to allow for annual lease sales in the Arctic and Atlantic, sought "to encourage expeditious seismic surveying" and mandated "expedited seismic permitting," and directed "a review and reconsideration of various offshore safety and pollution-control regulations and guidance documents … for consistency with the order's directive to encourage energy exploration and development."[111] Secretary Zinke promptly responded to President Trump's order, issuing his own order implementing it the following day.[112]

There are two key distinctions between President Trump's actions under the Antiquities Act and OCSLA. First, as discussed above, the President has broader discretion in his decisionmaking

106 Hein, *supra* note 6, at 135 (quoting Memorandum on Withdrawal of Certain Areas of the United States Outer Continental Shelf Offshore Alaska from Leasing Disposition, 2015 DAILY COMP. PRES. DOC. 1 (Jan. 27, 2015)).

107 *Id.* at 135–36.

108 *See* Termyn, *supra* note 1, at 11.

109 Exec. Order 13,795, 82 Fed. Reg. 20,815, 20,815 (Apr. 28, 2017).

110 *See* Complaint, *supra* note 1, at 20; Exec. Order No. 13,795, 82 Fed. Reg. at 20,816.

111 Complaint, *supra* note 1, at 20.

112 *See id.* at 20–21.

authority under OCSLA than under the Antiquities Act, because presidential discretion is bound in the Antiquities Act to designations of areas that (1) have historic or scientific importance and (2) are the smallest area compatible with proper management. For this reason, President Trump relied on general energy policy to change President Obama's prior proclamations under OCSLA,[113] but had to do more work to root his actions under the Antiquities Act to the statutory text, claiming that the prior designations were not the smallest compatible with management and were not needed to protect objects of scientific and historic significance.[114] By providing more detail in his national monument modifications, President Trump may be better able to ward off complaints of illegality than he will be in the OCSLA context, where his action appears to be significantly more arbitrary. Of course, the opposite conclusion could also be reached: because President Trump provides a more detailed rationale in his Antiquities Act revocations, it may be easier for a litigating party to find errors within that explanation.

Second, President Trump frames the OCSLA revocation as merely preliminary. In President Trump's Executive Order, he states the executive policy of energy dominance and reverses the language of President Obama's prior proclamations, but then mandates "reconsideration" of the current leasing policy and "encourages" expedited seismic surveying.[115] In part, President Trump is able to frame his actions this way because of the statutory structure of OCSLA: just because the President fails to fully protect an area from oil and gas drilling doesn't mean that drilling may take place, as the Secretary must first approve exploratory surveying and leasing plans, taking environmental considerations into account.[116] This is in juxtaposition to the proclamations removing protection from

113 *See* Exec. Order No. 13,795, 82 Fed. Reg. 20,815, 20,815 (Apr. 28, 2017) (stating that the policy of the U.S. is to "encourage energy exploration and production, including on the Outer Continental Shelf").

114 VINCENT, *supra* note 2, at 22; Proclamation No. 9681, 82 Fed. Reg. 58,081, 58,081 (Dec. 8, 2017) (modifying the area of Bears Ears by claiming that the objects removed from protection were "not of significant scientific or historic interest"); Proclamation No. 9682, 82 Fed. Reg. 58,089, 58,093 (Dec. 8, 2017) (claiming to confine the boundary of Grand Staircase-Escalante "to the smallest area compatible with the proper care and management of objects to be protected").

115 Complaint, *supra* note 1, at 20.

116 *See* Anderson, *supra* note 71, at 751–52.

Bears Ears and Grand Staircase-Escalante; these proclamations not only create new boundaries, effective immediately, but also immediately open the surrounding area to oil and gas exploration.[117] The immediacy of the impact of President Trump's actions in the Antiquities Act context may make it easier to challenge in court than his actions under OCSLA for justiciability reasons.

CONCLUSION

Although the focus of scholarly work to date has emphasized the similarities between the Antiquities Act and OCSLA, there are differences, and these differences may end up resulting in distinct outcomes in the ongoing litigation surrounding President Trump's decisions to revoke prior presidential protections utilizing these statutes.

First, the statutory text of the Antiquities Act provides several checks on a President's ability to declare national monuments—national monuments are meant to protect only "objects of historic and scientific interest" and must be "confined to the smallest area compatible with the proper care and management of the objects to be protected"—whereas OCSLA provides a President untethered withdrawal authority. It is not exactly clear what the difference in statutory text means, but it could be that President Trump has the ability (or even duty) to limit Bears Ears and Grand Staircase-Escalante based on the constraints of the Antiquities Act, whereas OCSLA should be read as giving a President free reign to withdraw OCS lands from oil and gas development but not the authority, as President Trump claims, to revoke a withdrawal. Alternatively, an argument could be made that because OCSLA seems to give nearly untethered authority to a President's ability to withdraw OCS lands, he should be given more leeway to modify prior withdrawals.

Second, the statutory structure of the Antiquities Act and OCSLA differ. The Antiquities Act has a simple, straightforward statutory structure, whereas OCSLA's statutory scheme is complex and involves many statutory actors. This might lead a court to determine that OCSLA is meant to be a more limited delegation of authority to a President, giving the President authority to act in only

[117] This is so because under the Mineral Leasing Act, there is no permitting process for oil and gas exploration. *See generally* 30 U.S.C. §§ 181–236 (2012).

specific situations, and thus President Trump acted without statutory authority in revoking President Obama's protections of the OCS. Alternatively, it could be argued that because the Antiquities Act was written to give almost all decisionmaking power in the national monuments context to the President, this broad delegation also grants President Trump the ability to act as he did in modifying the boundaries of Bears Ears and Grand Staircase-Escalante.

Third, the legislative history of the Antiquities Act indicates that Congress considered and rejected presidential revocation authority, whereas no similar rejection occurred in OCSLA. The ambiguity in OCSLA may enable President Trump and the federal government to argue that OCSLA's withdrawal authority also, implicitly, granted the authority to revoke the withdrawal; that argument is a lot more difficult to make in the Antiquities Act context.

Fourth, the Antiquities Act and OCSLA have distinct purposes, the purpose of the Antiquities Act being to provide quick, permanent protection of federal land and OCSLA's purpose being to promote development. Although OCSLA's Section 12(a), which grants the President the authority at issue here, seems to be focused on protecting environmentally sensitive OCS lands, it could be argued that President Trump was acting in accord with OCSLA's overall purpose. It is not possible to make this in the Antiquities Act setting, which was passed with a goal that is clearly at odds with President Trump's actions.

Fifth, and finally, many Presidents have modified national monuments in the past, relying on the Antiquities Act, whereas none have modified ongoing OCS withdrawals under OCSLA. This could end up being a significant factor in the ongoing litigation. Although past presidential action that has not been challenged in court does not necessarily have precedential support, this fact still may end up convincing a court that President Trump's actions are legal in the Antiquities Act setting but not in the OCSLA setting.

As this Note has demonstrated, the distinctions between the two statutes do not lead to a definitive judgment that President Trump's decisions to revoke past presidential land protections are legal in one statutory regime but not in the other. In fact, it could very well be the case that his actions are illegal in both settings. But it is important to think about the distinctions between the two statutes, as these distinctions could have repercussions in the ongoing litigation.