NOT ONE WITHOUT THE OTHER: THE CHALLENGE OF INTEGRATING U.S. ENVIRONMENT, ENERGY, CLIMATE, AND ECONOMIC POLICY

BY

VICTOR B. FLATT & HEATHER PAYNE *

Energy use is intertwined with environmental harms, climate, and economic development. However, the United States has failed to balance these interests together to make effective policy that can address each of these issues. The need for such integrative policy has become more and more obvious over time and with the added challenges of climate change. This Article reviews the historical challenge of integrating these policies, and by reviewing the policy core of prior statutes and policy debates, identifies principles that could guide a legislative body in attempting to integrate these issues successfully. This Article also notes the politicization of these issues and discusses possible paths forward from the existing gridlock.

* Victor B. Flatt is the Tom & Elizabeth Taft Distinguished Professor of Environmental Law and the Director of the Center for Law, Environment, Adaptation, and Resources (CLEAR) at the University of North Carolina Chapel Hill School of Law (UNC). Heather Payne (UNC Law 2011) is a Post-Graduate Research Fellow at CLEAR. The authors would like to thank the University of Minnesota and especially Hari Osofsky and Alexandra Klass for hosting a summit on energy and environment at which this Article was developed. Thanks also to support from researchers at the Nicholas Institute and RA Kyle Peterson.

I. INTRODUCTION

"Whatever affects one directly, affects all indirectly. . . . This is the interrelated structure of reality." –Dr. Martin Luther King, Jr.[1]

Most people would not think of Dr. King as someone who sought to address issues of energy and the environment. But his famous phrase recognizes the interrelated nature of our societal structure, and he himself recognized that all policy issues can affect economic wellbeing.[2] Energy, environment, climate, and economic development are all interrelated. Energy makes it easier to accomplish tasks, provide services, and make goods. In particular, energy produced in rates above those obtained

[1] DR. MARTIN LUTHER KING, JR., A GIFT OF LOVE, SERMONS FROM STRENGTH TO LOVE AND OTHER PREACHINGS 73 (1963).

[2] *See id.* at 144 (recognizing how U.S. capitalism and policy choices often affect wealth distribution); *see also* Dr. Martin Luther King, Jr., Beyond Vietnam Address at Riverside Church (Apr. 4, 1967) (transcript available in Stanford University's King Papers Project) (recognizing how the allocation of resources during the Vietnam War could affect the rehabilitation of the poor).

historically from animals or human effort—by using nuclear energy, stored energy in fossil fuels, high temperature or motion sources, solar or wind—enables our modern society to enjoy electronics, instant communication, mass travel, large-scale food production, and leisure.[3] Energy is thus inextricably linked with the economics of the human condition. The term "energy poverty" recognizes this linkage.[4]

An examination of energy also shows the obvious connection between energy and changes in the environment. The extraction and utilization of fossil fuel resources, for example, are probably the most important contributors to environmental degradation in our modern society.[5] The combustion of fossil fuels creates common air pollutants, is the major force of climate change, and is a large user and degrader of water resources.[6] Even "green" energy comes with environmental costs.[7] Habitat destruction and animal and plant mortality are common in hydropower, solar, and wind energy.[8]

Despite these obviously important and close connections between energy, the economy, environment, and climate, policymakers rarely consider them simultaneously.[9] Our country lacks even a comprehensive energy policy.[10] Our energy laws and policies focus on national security, cheap energy, or energy that causes less environmental harm, but these interests may work at cross purposes.[11] Increased energy production in the United States may increase energy security, but it is also likely to have significant environmental impacts.[12] Simply reducing dependence on foreign

3 *See* GREGORY R. COPLEY ET AL., ENERGY SECURITY 2.0: HOW ENERGY IS CENTRAL TO THE CHANGING GLOBAL BALANCE IN THE NEW AGE OF GEOGRAPHY 11–13 (2011), *available at* http://artofvictory.com/PDFs/Energy%20Security%202.0%20PDF%20Editi..pdf.

4 Int'l Energy Agency, *About Energy Poverty*, http://www.iea.org/topics/energypoverty/ (last visited Nov. 22, 2014) (describing "energy poverty" as "a lack of access to modern energy services"); *see also* Stephen Karekezi et al., *Energy, Poverty, and Development*, in GLOBAL ENERGY ASSESSMENT: TOWARD A SUSTAINABLE FUTURE 151, 157–60 (Int'l Inst. for Applied Sys. Analysis ed., 2012), *available at* http://www.iiasa.ac.at/web/home/research/Flagship-Projects/Global-Energy-Assessment/Global_Energy_Assessment_FullReport.pdf ("Human well-being, poverty reduction, social inclusion, and economic improvement cannot be advanced without access to electricity, fuels, mechanical power, and the range of services they provide.").

5 *See* Union of Concerned Scientists, *The Hidden Cost of Fossil Fuels*, http://www.ucsusa.org/clean_energy/our-energy-choices/coal-and-other-fossil-fuels/the-hidden-cost-of-fossil.html (last visited Nov. 22, 2014) ("Many of the environmental problems our country faces today result from our fossil fuel dependence.").

6 *Id.*

7 ERIN LIEBERMAN ET AL., DEFENDERS OF WILDLIFE, MAKING RENEWABLE ENERGY WILDLIFE FRIENDLY 7–8 (2010), *available at* http://www.defenders.org/sites/default/files/publications/making_renewable_energy_wildlife_friendly.pdf (discussing impacts on wildlife from solar and wind energy sources).

8 *Id.*; *see also* Narimantas Zdankus et al., *Impact of a Hydropower Plant on the Downstream Reach of a River*, 16 J. ENVTL. ENGINEERING & LANDSCAPE MGMT. 128, 128 (2008).

9 Victor B. Flatt, *Adapting Energy and Environmental Policy for Climate Change*, 11 VT. J. ENVTL. L. 655, 655–57 (2010).

10 *Id.* at 655.

11 *Id.*

12 *Id.*

oil may raise the price of energy domestically.[13] The United States has also used resource transfer as a method of economic development.[14]

Now climate change has entered the mix, creating issues distinct from other environmental harms and forcing closer examination of energy production.[15] Most environmental laws dealing with energy use tend to work in complementary fashion; for example, not mining coal will enhance clean water, clean air, and natural species protection.[16] But simply switching energy sources to account for greenhouse gas emissions may cause other environmental harms.[17] Additionally, the operation of existing environmental or natural resource laws may interact with climate change in such a way as to prohibit energy choices without providing any commensurate benefit.[18]

Climate also affects the economy of the United States and the world.[19] Rough estimates predict that changing climate or adapting to climate will cause a one to five percent loss in economic growth.[20] Therefore, we need to have a conversation about the environmental, energy, climate, and economic interests of our country at the same time. This Article seeks to further explicate why such integrated policymaking is important, examine prior attempts at pieces of this integration, and suggest policies that can guide a discussion going forward.

II. CLIMATE CHANGE INTENSIFIES THE CASE FOR AN INTEGRATED MODEL

Historically, the environmental impacts of human industrial activity have appeared to be localized, such as the hydrogen fluoride gas from zinc and steel mills in Donora, Pennsylvania, which killed seventy people in 1948—twenty during the inversion episode and fifty in the month after—sickened hundreds, and caused the death rate to remain higher than in surrounding towns even a decade later.[21] Two General Electric capacitor manufacturing plants in New York discharged approximately 1.3 million pounds of polychlorinated biphenyls (PCBs) into the Hudson River over

13 *Id.*

14 *Id.*; *see also* Gavin Wright & Jesse Czelusta, *Resource-Based Growth Past and Present*, *in* NATURAL RESOURCES: NEITHER CURSE NOR DESTINY 185–87 (Daniel Lederman & William F. Mahoney eds., 2007) (discussing the early American economy's reliance on mineral wealth).

15 Intergovernmental Panel on Climate Change, *Mitigation: Scope of the Problem*, http://www.ipcc.ch/ipccreports/tar/wg3/index.php?idp=383 (last visited Nov. 22, 2014); WORLD ENERGY COUNCIL, CLIMATE CHANGE: IMPLICATIONS FOR THE ENERGY SECTOR 5–8 (Carolyn Symon & Richard Black eds., 2014), *available at* http://www.worldenergy.org/wp-content/uploads/2014/06/Climate-Change-Implications-for-the-Energy-Sector-Summary-from-IPCC-AR5-2014-Full-report.pdf.

16 Flatt, *supra* note 9, at 656.

17 *Id.*

18 *Id.*

19 NICHOLAS STERN, THE STERN REVIEW: THE ECONOMICS OF CLIMATE CHANGE viii–ix (2007), *available at* http://webarchive.nationalarchives.gov.uk/+/http:/www.hm-treasury.gov.uk/media/4/3/executive_summary.pdf.

20 *Id.* at xiv–xv.

21 CRAIG N. JOHNSTON, WILLIAM F. FUNK & VICTOR B. FLATT, LEGAL PROTECTION OF THE ENVIRONMENT 253, 256–57, 265–66 (3d ed. 2010).

thirty years, which contaminated sediments in forty miles of "hot spots" directly downriver from the plants, and resulted in fish advisories and the closure of recreational and commercial fisheries; as PCBs bioaccumulate, they can cause cancer, low birth weight, thyroid disease, and immune system disorders.[22] Anniston, Alabama had an even worse experience with PCBs that Monsanto manufactured in the town, discharged into nearby creeks, and buried in a local landfill.[23] Some residents were found to have PCB levels in their blood twenty-seven times the national average, and the area suffered abnormally high cancer rates.[24] While these examples of pollution had a profound effect on the communities that surrounded the plants, they did not seem to affect the environment further afield.[25]

By the global reach of localized action, climate change is altering this equation. The effect of increasing atmospheric greenhouse gas levels worldwide is dissolving the relationship between environmental impacts and locality. This is especially true for the energy sector, where the consequences of burning fossil fuels can be felt far from the nearest coal burning or natural gas-fired power plant. In 2012, Arctic sea ice shrank to the lowest extent ever recorded.[26] In July 2012, Greenland's ice sheet melted over a larger area than at any time in more than thirty years of observations.[27] And in 2013, the Pine Island Glacier in Antarctica—which is the longest on the continent and in danger of collapse due to continual thinning—cracked completely and created an iceberg the size of New York City.[28]

The recognition of interaction and interconnectedness provides an increasing impetus to consider energy in connection with the environment.[29] At the federal level, this includes new proposed Clean Air Act rules to address greenhouse gases from electricity generating units.[30] Further momentum in this direction is demonstrated by actions such as the

22 U.S. Envtl. Prot. Agency, *Hudson River Cleanup*, http://www.epa.gov/hudson/cleanup.html#quest1 (last visited Nov. 22, 2014).

23 David Firestone, *Alabama Jury Says Monsanto Polluted Town*, N.Y. TIMES, Feb. 23, 2002, http://www.nytimes.com/2002/02/23/business/23MONS.html (last visited Nov. 22, 2014).

24 *Id.*

25 *See, e.g.*, JOHNSTON ET AL., *supra* note 21, at 266.

26 John Vidal & Adam Vaughan, *Arctic Sea Ice Shrinks to Smallest Extent Ever Recorded*, THE GUARDIAN, Sept. 14, 2012, http://www.theguardian.com/environment/2012/sep/14/arctic-sea-ice-smallest-extent (last visited Nov. 22, 2014).

27 Maria-Jose Vinas, *Satellites See Unprecedented Greenland Ice Sheet Surface Melt*, NASA'S EARTH SCI. NEWS TEAM, July 24, 2012, http://www.nasa.gov/topics/earth/features/greenland-melt.html (last visited Nov. 22, 2014).

28 Laurence Pope, *30-Kilometre Ice Crack Makes PIG Calve*, NEW SCIENTIST, July 10, 2013, http://www.newscientist.com/article/dn23847-30kilometre-ice-crack-makes-pig-calve.html#.UhVxmtLFWHg (last visited Nov. 22, 2014).

29 *See* Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units, Proposed Rule, 79 Fed. Reg. 34,830, 34,833 (proposed June 14, 2014) (explaining that EPA is proposing to reduce GHG emissions from power plants—by far the largest emitters of GHGs—in order to avoid far-reaching harmful environmental consequences); EXEC. OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN 4–8 (2013), *available at* http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf.

30 *See* EXEC. OFFICE OF THE PRESIDENT, *supra* note 29, at 6.

designation of "Solar Energy Zones" in six western states.[31] These sites were found, after thorough analysis, to have a minimum environmental impact, and, therefore, to be the locations most suitable for solar energy development.[32] To facilitate utility-scale solar developments on these parcels, the Bureau of Land Management (BLM) has stopped accepting new mining claims on all BLM land in the solar zones.[33] On the wind side, the first lease in federal waters off Massachusetts and Rhode Island occurred in July 2013, and plans are being made for additional leases in waters off Virginia, Maryland, and New Jersey.[34]

The energy sector itself is also affected by climate change and is being forced to consider the environment more often in planning and operation decisions.[35] Climate change affects the water supplies and water temperatures necessary for resource extraction, such as for fracking, and energy production, such as for steam generating units.[36] This will, by necessity, continue as the United States experiences increasing air and water temperatures, droughts, flooding, sea level rise, and more intense and frequent storms.[37]

But use of prior statutes, executive actions, and logical private sector choices can only go so far. Our current policy suite for environment, energy, climate, and economics do little to address their interaction.[38] Policy choices are not being made, which forces us into the strange situation of President Obama emphasizing existing policies that are contradictory.[39] He has often called for an "all of the above" energy policy to address energy independence and purportedly economic growth, while simultaneously calling for a reduction in greenhouse gases, which is thwarted by an "all of the above" approach.[40]

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31 Press Release, U.S. Bureau of Land Mgmt., Obama Admin. Approves Roadmap for Utility-Scale Solar Energy Development on Public Lands (Oct. 12, 2012), http://www.blm.gov/wo/st/en/info/newsroom/2012/october/NR_10_12_2012.html (last visited Nov. 22, 2014).

32 *Id.*

33 Press Release, U.S. Bureau of Land Mgmt., Land Order Facilitates Solar Energy Development on Public Lands (July 5, 2013), http://www.blm.gov/wo/st/en/info/newsroom/2013/july/NR_7_5_2013.html (last visited Nov. 22, 2014).

34 Mark Drajem & Andrew Herndon, *Deepwater Wins First Auction for U.S. Offshore Wind Lease*, BLOOMBERG, July 31, 2013, http://www.bloomberg.com/news/2013-07-31/deepwater-wind-wins-auction-for-first-offshore-wind-lease.html (last visited Nov. 22, 2014).

35 OFFICE OF POLICY & INT'L AFFAIRS, U.S. DEP'T OF ENERGY, U.S. ENERGY SECTOR VULNERABILITIES TO CLIMATE CHANGE AND EXTREME WEATHER 36–37 (2013), *available at* http://www.eenews.net/assets/2013/07/11/document_gw_05.pdf.

36 *Id.* at 18–24.

37 *Id.* at i, 46.

38 Albert C. Lin, *A Sustainability Critique of the Obama "All-of-the-Above" Energy Approach*, 5 GEO. WASH. J. ENERGY & ENVTL. L., Winter 2014, at 17, 20–22, 24–25.

39 Letter from Am. Rivers et al. to President Obama (Jan. 16, 2014), *available at* http://action.sierraclub.org/site/DocServer/All_of_the_Above_letter_Jan_16_FINAL_corrected.pdf?docID=14881.

40 For example, compare President Obama's statement that "[t]he all-of-above energy strategy I announced a few years ago is working, and today, America is closer to energy independence than we've been in decades," with his statement that "the United States has reduced our total carbon pollution more than any other nation on Earth. But we have to act

III. CLIMATE CHANGE, ECONOMIC CONSIDERATIONS, AND POLICY INTEGRATION

While the perceived economic impacts of environmental regulation were likely a factor in traditional environmental problems, such as the Donora tragedy,[41] climate change is also proving to be a facilitating force in the consideration of economic policy in connection with environmental and energy concerns.[42] This is largely due to the growing economic fallout resulting from the changing climate.[43] Globally, extreme weather and climate change are already shaving 1.6%—about $1.2 trillion—off worldwide gross domestic product (GDP), and that percentage is projected to rise to 3.2% by 2030.[44] These figures represent a heavy hit not only to major economies, but also to the lives and economies of developing countries and the world's poorest groups.[45]

Climate change rhetoric is also helping to end the jobs versus environment debate, which has been a point of contention for decades when discussing potential environmental regulations connected to the economy.[46] Contrary to conventional wisdom, studies increasingly show that environmental protection, economic growth, and job creation are complementary and compatible.[47] Thus, it is becoming clearer that environmental regulations are not necessarily job killers, and can work toward stimulating the economy while sustaining the environment. Taking into account such large global costs associated with climate change and the potential for economic growth in renewable and sustainable practices, it remains clear that "[w]hat is needed now is a new era of economic growth—growth that is forceful and at the same time socially and environmentally sustainable."[48]

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with more urgency—because a changing climate is already harming western communities struggling with drought, and coastal cities dealing with floods." President Barack Obama, State of the Union Address (Jan. 28, 2014), a*vailable at* http://www.whitehouse.gov/the-press-office/2014/01/28/president-barack-obamas-state-union-address.

41 Lynne Page Snyder, *"The Death-Dealing Smog over Donora, Pennsylvania": Industrial Air Pollution, Public Health Policy, and the Politics of Expertise, 1948–1949*, ENVTL. HIST. REV., Spring 1994, at 117, 118.

42 DARA, CLIMATE VULNERABILITY MONITOR: A GUIDE TO THE COLD CALCULUS OF A HOT PLANET 24, 29–30 (2d ed. 2012), *available at* http://daraint.org/climate-vulnerability-monitor/climate-vulnerability-monitor-2012/report/.

43 *Id.* at 17.

44 *Id.*

45 *Id.* at 18.

46 *See, e.g.*, MARK MURO ET AL., SIZING THE CLEAN ECONOMY: A NATIONAL AND REGIONAL GREEN JOBS ASSESSMENT 3–4 (2011); Roger H. Bezdek et al., *Environmental Protection, the Economy, and Jobs: National and Regional Analysis*, 86 J. ENVTL. MGMT. 63, 63 (2008); *see generally* FRANK T. MANHEIM, THE CONFLICT OVER ENVIRONMENTAL REGULATION IN THE UNITED STATES: ORIGINS, OUTCOMES, COMPARISONS WITH THE EU AND OTHER REGIONS 34–66 (2009) (explaining the contentious history of environmental regulation and economics).

47 *See* Bezdek et al., *supra* note 46; *see also* MURO ET AL., *supra* note 46.

48 Rep. of the World Comm'n on Env't & Dev., *Our Common Future*, 42d Sess., Aug. 4, 1987, U.N. Doc. A/42/427, Supp. No. 25 (1987), *available at* http://www.un-documents.net/our-common-future.pdf.

A. United Nations Conference on Sustainability

World leaders have also begun increasingly to recognize the need to integrate economic and environmental policy, as noted in the United Nations Conference on Sustainable Development, held in June 2012.[49] The attending heads of state and high-level representatives acknowledged the need to "further mainstream sustainable development at all levels, integrating economic, social and environmental aspects and recognizing their interlinkages, so as to achieve sustainable development in all its dimensions."[50] They also recognized that "many people, especially the poor, depend directly on ecosystems for their livelihoods, their economic, social and physical well-being" and it is thus "essential to generate decent jobs and incomes that decrease disparities in standards of living" while also promoting the "sustainable use of natural resources and ecosystems."[51] Many world leaders feel humans should have a right to jobs, energy, and development, while we attempt to protect the environment.

To help facilitate these goals, member states formed a focused political outcome document containing clear and practical measures for implementing sustainable development through the integration of environmental, economic, and social policy.[52] Such measures included groundbreaking guidelines and encouragement of green economy policies.[53] The United Nations defines a green economy as "one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities."[54] Member States encouraged each country to consider implementation of green economy policies in a manner that "endeavors to drive sustained, inclusive and equitable economic growth and job creation."[55] They also noted the importance of evaluating the range of social, environmental, and economic factors when making such decisions.[56]

Other major economic measures covered by the report include a decision to establish an intergovernmental process to prepare options on a strategy for sustainable development financing;[57] the adoption of a ten-year framework of programs on sustainable consumption and production

49 United Nations Conference on Sustainable Development, Rio de Janeiro, Braz., June 20–22, 2012, at 1–2, U.N. Doc. A/CONF.216/16, A/66/L.56, annex 1 (June 22, 2012) [hereinafter Sustainable Development Report], *available at* http://www.uncsd2012.org/content/documents/814UNCSD%20REPORT%20final%20revs.pdf.

50 *Id.*

51 *Id.* at 5–6.

52 *See id.* at 1–53 (highlighting the United Nations's agenda to promote sustainable development).

53 *Id.* at 10–13.

54 United Nations Env't Programme, *Green Economy: What is the "Green Economy"?*, *available at* http://www.unep.org/greeneconomy/AboutGEI/WhatisGEI/tabid/29784/Default.aspx (last visited Nov. 22, 2014).

55 Sustainable Development Report, *supra* note 49, at 11–12.

56 *Id.* at 12.

57 *Id.* at 48.

patterns;[58] the launch of a process to develop a set of sustainable development goals;[59] and a request to the United Nations Statistical Commission to launch a program of work in the area of progress measures that complement gross domestic product to better inform policy decisions.[60] All of these efforts show an increasing global realization that integration of economic, environmental and social policy is a viable and necessary step toward mitigating climate change while also generally improving the lives of those affected.

Interestingly, while the calls for sustainable integration[61] are increasing, international interest group polarization remains, with some dissatisfied environmental groups criticizing the 2012 Rio Conference for not ensuring more substantive environmental protection or avoidance of climate change.[62] Yet, this itself is a positive sign; it illustrates the actual need for decisions about competing policies and what should be valued.

B. Explicit Issues of Climate Costs in the United States and Why the Nation Must Address Them

The United States is certainly not immune to the rising costs associated with climate change.[63] Yet, "despite the lengthy debates on the federal budget in Congress, climate change rarely gets mentioned as a deficit driver."[64] Financing climate disruption was one of the largest nondefense discretionary budget items in 2012, totaling nearly $100 billion, and was mainly paid for by taxpayer dollars.[65] In fact, studies show that the economic fallout in the United States associated with climate change will account for 2% of U.S. GDP by 2030 if left unchecked.[66] The cost of unprecedented flooding and storm damage did force its way into the policy debate by sheer enormity.[67] Faced with huge deficits in the National Flood Insurance

58 *Id.* at 43.

59 *Id.* at 47.

60 *Id.* at 7.

61 *See* John C. Dernbach, *Sustainable Development: Now More Than Ever*, *in* STUMBLING TOWARD SUSTAINABILITY 45 (2002) (arguing that successful sustainable development requires a combination of social, economic, environmental, and security goals).

62 Simon Romero & John M. Broder, *Progress on the Sidelines as Rio Conference Ends*, N.Y. TIMES, June 23, 2012, http://www.nytimes.com/2012/06/24/world/americas/rio20-conference-ends-with-some-progress-on-the-sidelines.html?_r=1& (last visited Nov. 22, 2014); Paulo Prada & Valerie Volcovici, *Rio+20 Summit Begins Under a Cloud of Criticism*, REUTERS, June 20, 2012, http://www.reuters.com/article/2012/06/20/us-un-climate-idUSBRE85H19320120620 (last visited Nov. 22, 2014).

63 *See* NATURAL RES. DEF. COUNCIL, WHO PAYS FOR CLIMATE CHANGE?: U.S. TAXPAYERS OUTSPEND PRIVATE INSURERS THREE-TO-ONE TO COVER CLIMATE DISRUPTION COSTS 7, 9 (2013), *available at* http://www.nrdc.org/globalwarming/files/taxpayer-climate-costs-IP.pdf (reporting that the increases in flooding, insects, and drought has resulted in substantial loss to the Federal Crop Insurance Corporation and the National Flood Insurance Program).

64 *Id.* at 3.

65 *Id.*

66 DARA, *supra* note 42, at 14.

67 *See* Howard C. Kunreuther & Erwann O. Michel-Kerjan, *Implementing the National Flood Insurance Reform Act in a New Era of Catastrophes*, U. PA. WHARTON ISSUE BRIEF, Oct. 2013,

Program, the Biggert Waters Flood Insurance Reform Act of 2012 sought to tie insurance premiums to actuarial risk.[68] Interestingly, when the economic impacts on coastal homeowners were fully understood, a revolt ensued among these homeowners and their representatives.[69] The link between climate, environment, and economics is harsh indeed.

Contra the depressing stories of resistance to change, additional studies have shown that investment in renewable energy in the United States creates more jobs than investment in capital-intensive fossil fuels, while at the same time protecting the economy from political and economic risks associated with overreliance on a limited suite of energy technologies and fuels.[70] If this is so, it seems an economic imperative that the United States develop integrative green economic policies when addressing climate change.

It is evident that current U.S. energy policies and laws—especially most of our resource extraction laws—impose costs and risks on the private sector and on government that we cannot afford and do not need to assume because of their contribution to climate change. As a result, climate protection should be treated as an economic issue, not just as an environmental issue, and U.S. policy integration in these areas appears to be a necessary step toward a more sustainable future. President Obama has even invoked his executive authority to undertake a number of measures aimed at curbing climate change and preparing America for its costly impacts.[71] Such steps are a start toward a successful and integrative climate policy that accounts for all facets of climate change.

IV. PREVIOUS ATTEMPTS AT ENVIRONMENT, ENERGY, AND ECONOMIC INTEGRATION

There have been multiple attempts at integrating a combination of energy, environment, and economic considerations on at least a limited scale.[72] This Part details six attempts: the multiple-use paradigm, using the Army Corps of Engineers as an example;[73] the 1978 Outer Continental Shelf

para. 1, 17, 28, *available at* http://publicpolicy.wharton.upenn.edu/issue-brief/v1n9.php (citing historically high insurance costs resulting from extensive storm damage as the basis for national debate about the affordability of disaster insurance).

68 *See* FED. EMERGENCY MGMT. ASS'N (FEMA), BIGGERT WATERS FLOOD INSURANCE REFORM ACT OF 2012: IMPACT OF NATIONAL FLOOD INSURANCE PROGRAM (NFIP) CHANGES 1 (2013), *available at* http://www.fema.gov/media-library-data/20130726-1909-25045-0554/bw12_sec_205_207_factsheet4_13_2013.pdf.

69 *See, e.g.*, *Implementation of the Biggert-Waters Flood Insurance Act of 2012: One Year After Enactment: Hearing Before the Subcomm. on Econ. Policy of the S. Comm. on Banking, Hous., and Urban Affairs*, 113th Cong. (2013) (statement of Sen. Mary Landrieu), *available* at http://www.landrieu.senate.gov/files/documents/2013_09_18_landrieu_testimony.pdf.

70 *See* DANIEL M. KAMMEN ET AL., REPORT OF THE RENEWABLE AND APPROPRIATE ENERGY LABORATORY, PUTTING RENEWABLES TO WORK: HOW MANY JOBS CAN THE CLEAN ENERGY INDUSTRY GENERATE? 12 (2006), *available at* http://rael.berkeley.edu/sites/default/files/very-old-site/renewables.jobs.2006.pdf (showing statistics for the number of jobs created per million dollar investment in renewable energy: 5.65 for solar, 5.70 for wind, and only 3.96 for coal).

71 *See* EXEC. OFFICE OF THE PRESIDENT, *supra* note 29, at 4–5.

72 *See infra* Part IV.A–F and corresponding footnotes.

73 *See infra* Part IV.A and corresponding footnotes.

Lands Act amendments;[74] the Public Utility Regulatory Policies Act;[75] state Renewable and Alternative Energy Portfolio Standards;[76] carbon allocations in proposed climate change legislation;[77] and the Endangered Species Act and the use of federal lands for renewable energy development.[78]

A. The Multiple-Use Paradigm

The multiple-use paradigm can be found in many federal statutory schemes.[79] The paradigm allows an agency to consider multiple values when making resource allocation decisions.[80] One such statute is that administering water governance decisions by the U.S. Army Corps of Engineers (the Corps).[81] The Corps' multiple-use mandate includes: 1) electricity generation—energy and economics, 2) flood management—environment and economics, 3) recreation—economics, 4) agriculture—economics, 5) transportation—economics, and 6) the environment by itself.[82]

By "assum[ing] that resources can be managed to maximize multiple uses or needs,"[83] this paradigm purportedly gives agencies flexibility to integrate environmental, energy, and economic needs.[84] This means the Corps can choose among authorized uses within the boundaries of its statutory authority.[85] In practice, however, resources are managed in a static manner.[86] Rather than adapting to changing conditions, the Corps sets general use policies and adheres to them until forced to change.[87] This institutional inertia[88] can be attributed to agency capture, with specific interest groups pushing the Corps to adjust management practices to accommodate their desired share of resources.[89] It is likewise well documented in public choice theory that "it is easiest to address the most vocal and intense interests," rather than diffuse public interests.[90]

74 *See infra* Part IV.B and corresponding footnotes.

75 *See infra* Part IV.C and corresponding footnotes.

76 *See infra* Part IV.D and corresponding footnotes.

77 *See infra* Part IV.E and corresponding footnotes.

78 *See infra* Part IV.F and corresponding footnotes.

79 Victor B. Flatt & Jeremy M. Tarr, *Adaptation, Legal Resiliency, and The U.S. Army Corps of Engineers: Managing Water Supply in a Climate-Altered World*, 89 N.C. L. REV. 1499, 1501 n.3 (2011); *see also* Multiple-Use Sustained-Yield Act of 1960, 16 U.S.C. §§ 528–531 (2012); National Environmental Policy Act of 1969, 42 U.S.C. § 4332(2)(C)(iv) (2012).

80 Flatt & Tarr, *supra* note 79, at 1501.

81 Water Resources Development Act of 1986, Pub. L. No. 99-662, 100 Stat. 4082 (1986).

82 *See id.*

83 Flatt & Tarr, *supra* note 79, at 1501.

84 *See id.* at 1503, 1539.

85 *Id.* at 1535.

86 *Id.* at 1501.

87 *Id.* at 1511.

88 *Id.*

89 *Id.* at 1501, 1508.

90 *Id.* at 1516.

This preferential treatment of existing uses and the continuation of all uses—rather than rebalancing beneficial uses[91]—tends to lead to a lack of modification for protection of the environment.[92] However, the Corps' statutory authority clearly requires it to consider environmental protection and noneconomic factors.[93] The Third Circuit has even held that environmental protection is an affirmative duty.[94]

While it is legally within the Corps' discretion on how best to properly balance competing interests,[95] practice has shown that the Corps favors economic interests and, because of existing contracts, energy over other uses.[96] It does this by "treat[ing] hydropower contracts as significant limitations on its authority," even though energy "does not automatically demand priority over other authorized uses."[97]

Thus, while the current multiple-use statutory scheme is flexible[98] and resiliency and flexibility could be accomplished administratively,[99] the Corps example shows that some agencies with multiple-use paradigms adhere to longstanding practices despite changing circumstances.[100] The flexibility then must be incorporated through legislative changes, even if this is difficult to achieve.[101] In the Corps case, this would require Congress to either give more decision guidance or directly specify choices between uses given the rapidly changing climate.[102]

BLM likewise has a multiple-use approach in managing development on its lands.[103] This could make development of renewable energy easier on BLM land, but it could also require that the federal government balance renewable energy development interests with recreation and conservation.[104]

91 *Id.* at 1514.

92 *Id.* at 1512.

93 The 1990 Water Resources Development Act ("WRDA") listed environmental protection as one of the primary missions of the Corps. *Id.* at 1524. The 2007 WRDA requires consideration of noneconomic factors. *Id.* at 1523. The Corps must also mitigate any harm to fish or wildlife. *Id.* at 1525. While the Corps is subject to NEPA, it regularly uses categorical exclusions. *Id.* at 1527.

94 *Id.* at 1524 (citing Raymond Proffitt Found. v. U.S. Army Corps of Engineers, 434 F.3d 199, 206–07 (3d Cir. 2003)).

95 *Id.* at 1540.

96 *See id.* at 1508 n.48 (explaining that the Corps accommodates hydroelectric power contracts due to economic pressures).

97 *Id.* at 1514–15.

98 *Id.* at 1544.

99 *See id.* at 1502.

100 *Id.* at 1513.

101 *See id.* at 1501.

102 *See, e.g.*, *id.* at 1544 ("[T]he Corps cannot assume that courts will defer to its interpretation . . . . [T]he Corps should . . . voluntarily approach Congress.").

103 Alexandra B. Klass, *Renewable Energy and the Public Trust Doctrine*, 45 U.C. DAVIS L. REV. 1021, 1044 (2012).

104 *Id.*

B. Outer Continental Shelf Lands Act

Another example of attempted integration—this time between economic and energy development and environmental protection—comes from the 1978 amendments to the Outer Continental Shelf Lands Act (OCSLA).[105] With these amendments, the national policy regarding the outer continental shelf (OCS) became "expeditious and orderly development."[106] Congress implemented this plan by establishing a four-stage process: "(1) the issuance of a five-year leasing program; (2) the issuance of specific lease sales; (3) the approval of exploration plans; and, lastly (4) the approval of development and production plans."[107] Congress also mandated that the first stage required the preparation of an environmental impact statement.[108]

However, "while the OCSLA demands a balancing of several factors when deciding whether, when, and how to lease in the OCS, consideration of environmental issues associated with OCS activities historically has not fared well . . . ."[109] This was, at least initially, in part because President Reagan's first energy plan "relied primarily on market competition for assigning relative policy choices" between energy, the environment, and natural resources.[110] While "[t]he administration acknowledged energy-environmental conflicts," it dealt with these through cost–benefit analysis.[111] The relative policy choices regarding the effects of offshore energy development at the federal level have not been reassessed since.[112]

C. The Public Utility Regulatory Policies Act

Congress has also attempted to integrate economic policy—in the form of consumer rates, energy security, and arguably, environmental policy—through energy efficiency in regulating the nation's electric and gas utilities.[113] The Public Utility Regulatory Policies Act (PURPA),[114] required, among other things, "equitable retail rates for electric consumers" and that "rates to natural gas consumers are equitable."[115] Where electric utilities are concerned, PURPA's purposes include the encouragement of "conservation

105 43 U.S.C. §§ 1331–1356a (2012).

106 *Id.* § 1332(3).

107 Sam Kalen, *The BP Macondo Well Exploration Plan: Wither the Coastal Zone Management Act?*, 40 Envtl. L. Rep. (Envtl. Law Inst.) 11,079, 11,080 (2010).

108 *Id.* at 11,080–81.

109 *Id.* at 11,081.

110 Sam Kalen, *Replacing a National Energy Policy with a National Resource Policy*, NAT. RESOURCES & ENV'T, Winter 2005, at 13. Professor Kalen also noted a "historic failure to coordinate and integrate adequately environmental, public land, and natural resource goals and considerations into the development of energy policy." *Id.* at 9.

111 *Id.* at 13 (citation omitted).

112 A search of bill texts from Congress between 1989 and 2014 shows zero bills with floor action from either the House or the Senate that contain "offshore energy development" and "environment" or their variants in close proximity in any order.

113 Public Utility Regulatory Policies Act, 16 U.S.C. §§ 2601–2645 (2012).

114 *Id.*

115 *Id.* § 2601(1), (4).

of energy supplied by electric utilities" and "the optimization of the efficiency of use of facilities and resources by electric utilities."[116]

To accomplish these goals, Congress mandated in 1992 that "[e]ach electric utility shall employ integrated resource planning."[117] Integrated resource planning is defined as "a planning and selection process for new energy resources that evaluates the full range of alternatives . . . in order to provide adequate and reliable service to its electric customers at the lowest system cost."[118] PURPA thus proposes a balancing of energy reliability with affordability. To "promote energy conservation and increase the availability and security of energy supplies,"[119] the Energy Policy Act[120] amended PURPA in 2005, mandating that each electric utility

> shall make available upon request net metering service to any electric consumer that the electric utility serves. . . . [T]he term 'net metering service' means service to an electric consumer under which electric energy generated by that electric consumer from an eligible on-site generating facility and delivered to the local distribution facilities may be used to offset electric energy provided by the electric utility to the electric consumer during the applicable billing period.[121]

To utilize net metering, the statute also requires electric utilities to connect an on-site generating facility to the local distribution facilities.[122] The Senate legislative history states that the provisions were added to "encourage[] states to promote net metering, smart metering and distributed generation."[123] However, no cohesive policy has emerged.

D. State Renewable or Alternative Energy Portfolio Standards

States are attempting to integrate environmental and energy security concerns through the passage of renewable energy portfolio standards.[124] Thirty-one states plus the District of Columbia currently have either renewable portfolio standards or alternative energy portfolio standards.[125] An

116 *Id.* § 2611.

117 *Id.* § 2621(d)(7).

118 *Id.* § 2602(19).

119 H.R. 1640, 109th Cong. (2005).

120 *Id.*

121 16 U.S.C. § 2621(d)(11).

122 *Id.* § 2621(d)(15).

123 S. REP. NO. 109-78, at 5 (2005).

124 Solar Energy Indus. Ass'n, *Issues & Policies: Renewable Energy Standards*, http://www.seia.org/policy/renewable-energy-deployment/renewable-energy-standards (last visited Nov. 22, 2014).

125 These include Arizona (ARIZ. ADMIN. CODE § R14-2-1800 (2007)); California (CAL. PUB. UTIL. CODE § 399.11 (2012)); Colorado (COLO. CODE REGS. § 723-3-3651 (2012)); Connecticut (CONN. GEN. STAT. § 16-245a (2013)); Delaware (DEL. CODE ANN. tit. 26, § 351(b) (2012)); Hawaii (HAW. REV. STAT. § 269-92 (2010)); Illinois (20 ILL. COMP. STAT. 3855 / 1-5 (2012)); Iowa (IOWA CODE § 476.53A (2013)); Kansas (KAN. STAT. ANN. § 66-1258 (2012)); Maine (ME. REV. STAT. tit. 35-A, § 3210 (2011)); Maryland (MD. CODE ANN., PUB. UTIL. COS. § 7-703 (2013)); Massachusetts

additional seven have renewable or alternative energy goals, objectives, or standards.[126]

While the reasons for states to implement renewable standards vary, common themes are present. Arizona specifically requires distributed renewable energy "[i]n order to improve system reliability . . . ."[127] Colorado's stated intent is "to save consumers and businesses money, attract new businesses and jobs, promote development of rural economies, minimize water use for electricity generation, diversify Colorado's energy resources, reduce the impact of volatile fuel prices, and improve the natural environment of the state . . . ."[128] Delaware's General Assembly found:

> [T]he benefits of electricity from renewable energy resources accrue to the public at large . . . . These benefits include improved regional and local air quality, improved public health, increased electric supply diversity, increased protection against price volatility and supply disruption, improved transmission and distribution performance, and new economic development opportunities.[129]

Hawaii's purpose is to "decrease Hawaii's need to import large amounts of oil, and increase import substitution, economic efficiency, and productivity, by increasing the use and development of Hawaii's renewable energy resources."[130] Iowa encourages the use of renewable power "to meet local electric needs and the development of transmission capacity to export wind power generated" in the state.[131] Illinois wanted to protect "economic well-being, health, and safety" with its renewable portfolio standard.[132] Maine's goals include ensuring "an adequate and reliable supply of electricity" and

(MASS. GEN. LAWS ch. 25A, § 11F (2012)); Michigan (MICH. COMP. LAWS § 460.1001 (2012)); Minnesota (MINN. STAT. ANN. § 216B.1691 (West 2014)); Missouri (MO. ANN. STAT. § 393.1020 (West 2010)); Montana (MONT. CODE ANN. § 69-3-2001 (2013)); Nevada (NEV. REV. STAT. § 704.7821 (2013)); New Hampshire (N.H. REV. STAT. ANN. § 362-F:1 (West 2014)); New Jersey (N.J. ADMIN. CODE § 14:8-2.1 (West 2014)); New Mexico (N.M. CODE R. § 17.9.572 (West 2014)); New York (N.Y. Pub. Serv. Comm., Proceeding on Motion of the Commission Regarding a Retail Renewable Portfolio Standard, Case 03-E-0188, 2010, *available at* http://documents.dps.ny.gov/public/MatterManagement/CaseMaster.aspx?MatterSeq=17612); North Carolina (N.C. GEN. STAT. § 62-133.8 (2013)); Ohio (OHIO REV. CODE ANN. § 4928.64 (West 2014)); Oregon (OR. REV. STAT. § 469A.010 (2013)); Pennsylvania (73 PA. STAT. ANN. § 1648.1 (West 2014)); Rhode Island (R.I. GEN. LAWS ANN. § 39-26-1 (West 2006)); Texas (TEX. UTIL. CODE ANN. § 39.904 (West 2007)); Vermont (VT. STAT. ANN. tit. 30, § 8001 (2011)); Washington (WASH. REV. CODE § 19.285.040 (West 2014)); Washington, D.C. (D.C. CODE § 34-1432 (2011)); Wisconsin (WIS. STAT. § 196.378 (2011)).

126 These are Alaska (ALASKA STAT. § 44.99.115 (2010)); Indiana (IND. CODE § 8-1-37-5 (2011)); North Dakota (N.D. CENT. CODE § 49-02-28 (2007)); Oklahoma (OKLA. STAT. ANN. tit. 17, § 801.4 (West 2010)); South Dakota (S.D. CODIFIED LAWS § 49-34A-101 (2009)); Utah (UTAH CODE ANN. § 54-17-602 (West 2008)); and Virginia (VA. CODE ANN. § 56-585.2 (West 2014)).

127 ARIZ. ADMIN. CODE § R14-2-1805 (2007).

128 COLO. CODE REGS. § 723-3-3651 (2012).

129 DEL. CODE ANN. tit. 26, § 351(b) (2009).

130 2004 Haw. Sess. Laws 384.

131 IOWA CODE § 476.53A (2014), *available at* https://www.legis.iowa.gov/docs/ico/chapter/2014/476.pdf.

132 20 ILL. COMP. STAT. ANN. 3855 / 1-5 (West 2012).

"to diversify electricity production."[133] Montana's findings include that "renewable energy production promotes sustainable rural economic development" and "increased use of renewable energy will enhance Montana's energy self-sufficiency and independence . . . ."[134] North Carolina cited energy security and improved air quality.[135] New Hampshire found "environmental, economic, and security benefits."[136] Washington cited energy independence, stabilizing electricity prices, providing economic benefits, protecting clean air and water, and positioning "Washington state as a national leader in clean energy technologies."[137]

In addition to the stated environmental and economic development benefits, long-term affordability is also clearly important to many states. Since renewable energy requirements could increase the price of retail electricity, many states have demonstrated concern by adding cost control measures or noting affordability in the renewable energy requirements.[138] Arizona felt it could meet its renewable goal with a charge of only thirty-five cents per residential consumer per month.[139] Colorado and New Mexico capped additional charges to implement their standards at two and three percent, respectively, of any specific annual bill.[140] Most states, however, found it easiest to deal with any charges through already established utility commission docket proceedings.[141] In many states, renewable energy can be used only near to where it is produced, unless the transmission capacity exists in order to move it.[142] While the majority of the push for new transmission lines has been at the federal level, states have attempted to integrate transmission into their renewable standards in different ways.[143] As

133 ME. REV. STAT. ANN. tit. 35-A, § 3210(1) (2010).

134 MONT. CODE ANN. § 69-3-2002 (2013).

135 N.C. GEN. STAT. § 62-2 (2013).

136 N.H. REV. STAT. ANN. § 374-F:3 (LexisNexis 2008).

137 WASH. REV. CODE § 19.285.020 (West 2014).

138 UNION OF CONCERNED SCIENTISTS, HOW RENEWABLE ELECTRICITY STANDARDS DELIVER ECONOMIC BENEFITS 5 (2013), *available at* http://www.ucsusa.org/sites/default/files/legacy/assets/documents/clean_energy/Renewable-Electricity-Standards-Deliver-Economic-Benefits.pdf; *see also* MONT. CODE ANN. § 69-3-2007 (2013) (noting that a utility company does not have to use renewable energy unless the total cost is less than or equal to conventional electricity sources).

139 ARIZ. ADMIN. CODE § R14-2-1618(A)(2)(a) (2013).

140 COLO. REV. STAT. § 40-2-124(1)(g)(I) (2012); N.M. CODE R. § 17.9.572.12(B) (LexisNexis 2012).

141 *See, e.g.*, 1999 Conn. PUC LEXIS 349, 207 (establishing 5% per kilowatt hour surcharge for renewables); 2004 N.Y. PUC LEXIS 386, 134–35 (establishing the Renewable Portfolio Standard surcharge to apply to all retail customers).

142 CHI YEN JANG, CLIMATE CHANGE POLICY PARTNERSHIP, ELECTRICAL TRANSMISSION: BARRIERS AND POLICY SOLUTIONS 10 (2009), *available at* http://nicholasinstitute.duke.edu/sites/default/files/publications/electrical-transmission-barriers-and-policy-solutions-paper.pdf (explaining that most renewable energy centers are far from population centers and lack adequate transmission infrastructure).

143 *See* Thomas Hutton, *Energy Policy Act § 216: A Power Worth Preserving*, 39 ENVTL. L. REP. 11,002, 11,002 (2009) (explaining that the 2005 Energy Policy Act was in direct response to state inaction on transmission project certification); *see also, e.g.*, COLO. REV. STAT. § 40-2-126(3) (2007) (requiring the approval of transmission line siting if it would help the state meet renewable energy standards); MICH. COMP. LAWS SERV. § 460.1047 (2008) (allowing costs incurred in building transmission capabilities to be factored into costs recoverable by the

noted above, Iowa specifically encouraged transmission.[144] Michigan, in addition to implementing wind energy resource zones, also provided for expedited transmission line-siting certification.[145]

E. American Clean Energy and Security Act of 2009

Recently, Congress attempted integration of climate, environmental, energy, and economic interests in the allocation of rights to emit carbon via proposed climate change legislation.[146] While the American Clean Energy and Security Act of 2009 (ACES)[147] proposed a cap-and-trade program where the total allocation of carbon emissions would decrease over time, political considerations determined how those allocations, or the money received for them, were distributed.[148] Based on the size of the cap, the environmental objectives of the program theoretically should be met.[149] However, allocation decisions can determine whether the decreases are most efficient and at the lowest possible cost.[150]

In ACES, the value of more than 70% of the allowance allocation was to protect consumers from energy cost increases initially, decreasing over the implementation period.[151] From 2012 to 2050, approximately 58% of the allowances would go to consumers.[152] While this allocation moderates energy price changes to protect the consumer, this works against one of the other purposes, because environmental benefits could be better achieved with a stronger price signal for conservation. Also, over time, the allocations in the

electric provider, if it would be in furtherance of the state's renewable energy standards); IOWA CODE § 476.53A (2011) (explaining the intent of the General Assembly to promote construction of transmission lines for wind power for interstate and intrastate purposes).

144 IOWA CODE § 476.53A.

145 MICH. COMP. LAWS SERV. § 460.1149 (2008).

146 *See* American Clean Energy and Security Act of 2009, H.R. 2454, 111th Cong. (2009) [hereinafter ACES] (expressing its purpose "[t]o create clean energy jobs, achieve energy independence, reduce global warming pollution and transition to a clean energy economy").

147 *Id.*

148 PEW CTR. ON CLIMATE CHANGE, DISTRIBUTION OF ALLOWANCES UNDER THE AMERICAN CLEAN ENERGY AND SECURITY ACT (*Waxman–Markey*) (2009), *available at* http://www.c2es.org/docUploads/policy-memo-allowance-distribution-under-waxman-markey.pdf.

149 NATURAL RES. DEF. COUNCIL, ANALYSIS OF H.R. 2454, THE AMERICAN CLEAN ENERGY AND SECURITY ACT (ACES) 1, 3–4 (2009), *available at* http://www.nrdc.org/globalWarming/files/ACESLegFS.pdf.

150 ROBERT W. HAHN & ROBERT N. STAVINS, THE EFFECT OF ALLOWANCE ALLOCATIONS ON CAP-AND-TRADE SYSTEM PERFORMANCE 8–9 (2010), *available at* http://www.rff.org/RFF/Documents/RFF-DP-10-21.pdf.

151 This initially included 43.75% to electricity consumers, ACES, H.R. 2454, 111th Cong. § 782(a)(1)(A) (2009), 1.875% to heating oil and propane customers, *id.* § 782(c)(1), and 15% to be auctioned for the benefit of low-income customers, *id.* § 782(d), all to begin in 2012, and 9% to natural gas customers to begin in 2016, *id.* § 782(b)(1). By 2029 these will decrease to 7% for electricity consumers, *id.* § 782(a)(1)(G), 1.8% to natural gas consumers, *id.* § 782(b)(5), and 0.3% to heating oil and propane customers in 2029, *id.* § 782(c)(7). The 15% for low-income customers remained constant during the entire implementation until 2050. *Id.* § 782(d). Additionally, between 2026 and 2050, unused allowances were to be provided to consumers in the form of a climate change dividend. *Id.* § 782(r).

152 PEW CTR. ON CLIMATE CHANGE, *supra* note 148, fig.2.

ACES bill were scheduled to be updated based on energy output, including those allocations for merchant coal generators.[153] This provided a disincentive for retiring coal-fired electricity generation, distorting the efficiency and move toward other fuels that a carbon market would naturally bring.

Additionally, several alternative comprehensive climate and energy bills have been extensively debated in the literature.[154] Noting the possibility of any cap-and-trade program raising energy prices, alternatives to the ACES scheme include "cap-and-dividend," where all allowances are auctioned and the proceeds are returned to residents through rebate checks.[155] Another approach is "fair-share cap and trade," where allowances are distributed equally to residents for free, who can then sell them in the allowance market for a profit.[156] A perceived benefit to both of these alternatives is that they are revenue neutral and could actually enhance the wealth of customers who conserve energy most effectively.[157] However, these approaches make it impossible for the elected body to balance other factors as in ACES, including the development of a strategic reserve, funding for international programs and adaptation, the support of energy-intensive, trade-vulnerable industries, and development of new technologies.[158]

F. The Endangered Species Act and Renewable Energy on Federal Land

Another situation where the federal government is attempting to explicitly integrate energy and environmental concerns is renewable energy development on federal land.[159] Large-scale renewable energy development has the potential to increase energy security over the long term, while reducing climate change and the pollution associated with conventional energy sources.[160] However, these renewable energy projects could harm wildlife, as well as affect open space and aesthetic values.[161] This is because renewable energy projects are land intensive.[162] A thermal solar power plant requires thousands of acres.[163] Wind power "also can have significant adverse

153 ACES, *supra* note 146, § 783(c)(3)("[T]he Administrator shall identify an annual phase-down factor, applicable to distributions to merchant coal units. . ."); UNION OF CONCERNED SCIENTISTS, COMPARISON OF THE AMERICAN CLEAN ENERGY AND SECURITY ACT OF 2009 (ACES, HOUSE-PASSED BILL) AND THE CLEAN ENERGY JOBS AND AMERICAN POWER ACT OF 2009 (CEJAPA, 9/30/09 VERSION) 20 (2009), *available at* http://www.usclimatenetwork.org/resource-database/CEJAPA-ACES-comparison.pdf (describing the ACES bill's allocation schedule for merchant coal generators).

154 *See infra* notes 155–158 and corresponding text.

155 Amy Sinden, *Revenue-Neutral Cap and Trade*, 39 Envtl. L. Rep. (Envtl. Law Inst.) 10,944, 10,945 (2009).

156 *Id.*

157 *Id.*

158 PEW CTR. ON CLIMATE CHANGE, *supra* note 148, fig.2.

159 Klass, *supra* note 103, at 1032.

160 *Id.* at 1023.

161 *Id.* at 1024.

162 *Id.* at 1040.

163 *Id.* at 1059.

impacts on plant and animal species habitat, result in avian deaths, and interfere with open space and wilderness values."[164]

One option being discussed to limit the conflict is for BLM to identify areas that are most suitable for utility-scale solar production.[165] Termed "solar energy zones," these public lands were identified as "containing the fewest environmental and resource conflicts."[166] However, even in these areas, there are conflicts between proposed solar development and critical habitat for desert species, including the endangered desert tortoise.[167] Determining the balance between wildlife and renewable energy development continues, including in the courts.[168] Agencies cannot ignore the requirements of the Endangered Species Act (ESA)[169] in "the quest for renewable energy."[170]

Another option is to place renewable projects on private land. While renewable projects sited on private land may not have to address federal environmental review, they are still subject to the ESA.[171] Therefore, while not having the vista or open space concerns of development on public land, destruction of critical habitat and other possible wildlife impacts to candidate, threatened, or endangered species still exist.[172] As a result, none of these attempts have been successful at integration.[173]

V. WHAT GUIDES CHOICES IN AN INTEGRATED ENERGY, ENVIRONMENT, CLIMATE, AND ECONOMIC POLICY

There are examples in which economic, environmental, or energy interests seem to have been partially addressed in the determination of national policy.[174] What do these examples suggest for a fully integrated

164 *Id.* at 1041.

165 *Id.* at 1060.

166 *Id.*

167 *Id.* at 1061–62.

168 The Center for Biological Diversity sued owners and operators of wind turbines in Altamont Pass, CA, arguing that the turbines had killed tens of thousands of birds and thousands of raptors. *Id.* at 1046–47. While the California Court of Appeals found wildlife to be part of the public trust, the court "attempted to balance the public interest in renewable energy development with public trust principles." *Id.* at 1047. The Sierra Club also sued for approving a solar project in the Mojave Desert based on its location in tortoise habitat. *Id.* at 1063.

169 Endangered Species Act of 1973, 16 U.S.C. §§ 1531–1544 (2012).

170 Klass, *supra* note 103, at 1072.

171 *Id.* at 1044–45.

172 16 U.S.C. § 1536.

173 *See* Blair M. Warner, *Overhauling ESA Private Land Provisions in Light of the Renewable Energy Boom on Federal Public Lands*, 89 NOTRE DAME L. REV. 1875, 1894–96, 1898 (2014) (explaining that although private lands are a vital part of species habitat, renewable energy development should not be hindered by the ESA).

174 *See* David W. Case, *The EPA's Environmental Stewardship Initiative: Attempting to Revitalize Floundering Regulatory Reform Agenda*, 50 EMORY L.J. 2, 11 (2001) (stating that the President's Council on Sustainable Development aims to promote "sustainable development" for future generations through national policies that consider economic, environmental, and social interests together).

discussion and ultimate decision on a major integrated policy for energy, environment, climate, and economics?

In one sense, of course, the answer to this question is "whatever anyone in the deliberative body wishes to consider," but such an answer is hardly satisfactory. We know that lawmakers can currently connect and consider policy that affects multiple issues, and yet in these fields, we still seem to have silos of policy as well as politicization of environmental and energy issues.[175] This makes it difficult to start a discussion on balancing interests.

Another possibility would be to identify the primary policy goals of these issues separately and make sure they are considered in integrative policy. These policies would not have to be preserved, but at least the knowledge of them would provide a historical construct for thinking of the issues. This Article examines two sources of such "existing" policy: policies that can be discerned through prior statutes, and policies identified as important by scholars and lawmakers.

A. Who Gets to Consider the Policy Tradeoffs?

Before we consider prior policy goals for the purpose of illuminating values that could be considered in crafting integrated policy between energy, environment, climate, and economic development, it is important to understand who will be considering an integrated policy, and why. We start with the importance of deliberative governance—the idea that policies are best made in open debate by representatives of the parties affected.[176] This means that while executive branch agencies have a day-to-day duty to make sense of their legislative mandates, an agency's role is not to substitute its judgment on balance for that of the body politic.[177]

While there are reams of critique about whether deliberative governance actually engages in policy debate or tradeoffs,[178] to us this remains the only real possibility. Failure to even attempt to place a check on agency discretion means that we have abandoned our whole framework of constitutional governance.[179] While these deliberative policies could occur at

175 Janine Ferretti, *Innovations in Managing Globalization: Lessons from the North American Experience*, 15 GEO. INT'L ENVTL. L. REV. 367, 377 (2003); MARIA SAVASTA-KENNEDY, THE DANGERS OF CARBON REDUCTION TUNNEL VISION 13 (2014), *available at* http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2518613.

176 Victor B. Flatt, *Adapting Laws for a Changing World: A Systemic Approach to Climate Change Adaptation*, 64 FLA. L. REV. 269, 287 (2012).

177 *See* Leonard M. Baynes, *Swerving to Avoid the "Takings" and "Ultra Vires" Potholes on the Information Superhighway: Is the New York Collocations and Telecommunications Policy a Taking Under the New York Public Service Law?*, 18 HASTINGS COMM. & ENT. L.J. 51, 82 (1995) ("[S]ociety does not want administrative agencies to overstep their bounds. An agency should exercise only those powers expressly granted by statute.").

178 Janette Hartz-Karp, *A Case Study in Deliberative Democracy: Dialogue with the City*, 1 J. PUB. DELIBERATION, no. 1, 2005, at 8–9; Carolyn M. Hendriks, *Deliberative Governance in the Context of Power*, 28 POL'Y & SOC'Y 173, 176–78 (2009); Alison Kadlec & Will Friedman, *Deliberative Democracy and the Problem of Power*, 3 J. PUB. DELIBERATION, no. 1, 2007, at 3–5.

179 *See* Victor B. Flatt, *The "Benefits" of Non-Delegation: Using the Non-Delegation Doctrine to Bring More Rigor to Benefit–Cost Analysis*, 15 WM. & MARY BILL RTS. J. 1087, 1088–89, 1096–

different levels, the energy, environment, climate, and economic development propose a national scope. Additionally, without investment in a deliberative process, there would be no buy-in for the difficult decisions that might need to be made. Major change in policy must be subject to some rigorous discussion of tradeoffs by the body politic.[180] Such discussion would also help to protect vulnerable groups in the decision-making process.[181]

Centering the debate in the legislative process also allows the avoidance of obfuscation, which is so common in our debates over energy and the environment.[182] Our current system, in which policy tradeoffs occur at the implementation phase, allows our leaders to give *sub rosa* effect to other values without proper discussion or consideration.[183] In his concurrence in *Industrial Union Department v. American Petroleum Institute*,[184] Justice William Rehnquist noted that allowing policymaking in the executive branch deprives the public of its role in a republican form of government.[185] As one court has stated, "[t]he constitutional doctrine prohibiting delegation of legislative power rests on the premise that the Legislature may not abdicate its responsibility to resolve the 'truly fundamental issues' by delegating that function to others or by failing to provide adequate directions for the implementation of its declared policies."[186]

99, 1101 (2007) (arguing that administrative agencies overstep their bounds using cost–benefit analysis as a tool, and that a proper judicial standard would solve the problem).

180 *See* Alejandro E. Camacho, *Assisted Migration: Redefining Nature and Natural Resource Law Under Climate Change*, 27 YALE J. ON REG. 171, 254–55 (2010) (arguing that in evaluating strategies for adapting to climate change, tradeoffs that are involved in resource management decisions should be considered); *see generally* Dave Owen, *Probabilities, Planning Failures, and Environmental Law*, 84 TUL. L. REV. 265, 271–72 (2009) (discussing how questions of planning uncertainty are frequently addressed on "an ad hoc basis" with "little transparency," generally involve low odds for success, and lead to an impediment to public participation, increased vulnerability to biases, and regulatory dysfunction).

181 *See* Daryl J. Levinson, *Rights and Votes*, 121 YALE L.J. 1286, 1289 (2012) (noting that the interests of vulnerable groups in collective decision-making processes can be protected by "disallowing certain outcomes" or by "enhancing the power" of those groups within the decision-making process).

182 *See* Adam Babich, *Too Much Science in Environmental Law*, 28 COLUM. J. ENVTL. L. 119, 122 (2003) (describing an instance where the EPA "relied on obfuscation, using legalistic definitions and complex risk assessments" instead of "fostering an informed debate about how to balance safety with other societal goals" when faced with a fundamental question of regulation).

183 *See* Victor B. Flatt, *Saving the Lost Sheep: Bringing Environmental Values Back into the Fold with a New EPA Decisionmaking Paradigm*, 74 WASH. L. REV. 1, 12 (1999) ("Values that Congress clearly intended to be considered in the implementation of environmental laws may be ignored altogether or considered partially, depending upon the particular agency decisionmaker or agency approach to a given problem.").

184 448 U.S. 607 (1980).

185 *Id.* at 672–73 (Rehnquist, J., concurring).

186 CEEED v. Cal. Coastal Zone Conservation Comm'n (*CEEED)*, 118 Cal. Rptr. 315, 329 (Cal. Ct. App. 1974) (quoting Kugler v. Yocum, 445 P.2d 303, 306 (Cal. 1968)); *see also* Benjamin M. McGovern, *Reexamining the Massachusetts Nondelegation Doctrine: Is the "Areas of Critical Environmental Concern" Program an Unconstitutional Delegation of Legislative Authority?*, 31 B.C. ENVTL. AFF. L. REV. 103, 108 (2004) (citation omitted) (quoting *CEEED*).

B. Prior Overriding Policy Themes

In examining current environmental and energy statutes and laws, as in Part IV above, we see various interests at stake: multiple-use paradigms that promote energy, resource use, economic interests, recreation, and sometimes environmental interests that seek to maximize human benefit and promote flexibility.[187] Laws such as OCSLA, PURPA, and renewable energy portfolios seek to balance energy security and environmental considerations.[188] Proposed climate change statutes balance environment, energy, and the economy along with climate.[189] Besides these obvious interests that must be considered, is there any precedent for *how* they can be prioritized, or considered and weighed against each other? We propose a prioritization that seems evident from past policy choices: 1) certain environmental health protections are fundamental rights that are superior to other interests; 2) economic and employment interests are next in importance when other considerations would create massive job or economic disruption; and 3) when considering more routine human benefits and interests from economic to aesthetic to philosophical, interests should be compared to each other in some uniform currency.

1. Environmental Health Protection As Right

A perusal of our main environmental health laws shows that they are different from other statutes. The Clean Air Act (CAA)[190] requires that national ambient air quality standard be set to "protect the public health," with no economic considerations.[191] The Clean Water Act (CWA),[192] the Resource Conservation and Recovery Act (RCRA),[193] and the Comprehensive Environmental Response Compensation and Liability Act (CERCLA)[194] have similarly broad protections.[195] In fact, the CWA, the CAA, and the ESA are recognized as distinctly *not* being subject to using cost–benefit analysis to make or justify regulatory determinations.[196] And human health as the keystone right did not just emerge from nowhere with the passage of modern environmental statutes.[197] As one of the authors noted in a previous

187 *See supra* Part IV.A.

188 *See supra* Part IV.B–D.

189 *See supra* Part IV.E.

190 42 U.S.C. §§ 7401–7671q (2012).

191 *Id.* § 7409(b); *see also* Whitman v. Am. Trucking Ass'ns, Inc., 531 U.S. 457 (2001) (holding that EPA may not consider economic factors when setting national ambient air quality standards).

192 33 U.S.C. §§ 1251–1387 (2012).

193 Resource Conservation and Recovery Act of 1976, 42 U.S.C. §§ 6901–6992k (2012).

194 Comprehensive Environmental Response, Compensation, and Liability Act of 1980, 42 U.S.C. §§ 9601–9675 (2012).

195 33 U.S.C. § 1312; 42 U.S.C. § 6902; 42 U.S.C. § 9602.

196 Flatt, *supra* note 183, at 2, 6.

197 *See* World Health Organization, Constitution, Preamble, Jul. 22, 1946, *available at* http://whqlibdoc.who.int/hist/official_records/constitution.pdf (declaring that health is a fundamental human right).

article, protecting human health and autonomy as preeminent in conflicts with general economic rights and interests is inherent in our common law.[198] Thus, in terms of balancing interests, law itself, as well as societal proscriptions, demand that we place public health as an interest superior to other mere general, economic human interests.[199]

2. The Importance of an Economic System That Provides Sustenance

After the preeminent protection of human rights to personal health and wellbeing, prior statutory choices indicate the importance of economic development, at least with regard to basic sustenance—a system that provides the opportunity to earn a living and purchase food, shelter, and clothing. One of the most fascinating choices made in prior environmental legislation concerned the decision in the 1977 Clean Air Act Amendments[200] to require that new coal-fired power plants install scrubbers to bring sulfur dioxides to levels that protect public health, instead of allowing the far cheaper option of the utilization of low sulfur coal.[201] Both would have protected the preeminent goal—public health—but the more expensive option of requiring scrubbers maintained a market for Eastern high sulfur coal, which was the only large-scale employment option at the time in certain parts of Appalachia.[202] In the book, *Clean Coal/Dirty Air*, authors Bruce A. Ackerman and William T. Hassler roundly criticize the decision as being inefficient, which it was—from a net utility cost–benefit analysis, if the point is only to control pollution.[203] However, this action represents a conscious decision to prioritize the protection of a major regional job base at a higher cost to general consumers. While policymakers could have chosen other methods to provide basic sustenance to these parts of the country, such as fostering other industries or job retraining, they did not do so.[204]

198 Victor B. Flatt, *This Land is Your Land: Our Right to the Environment*, 107 W. VA. L. REV. 1, 20, 28–29 (2004).

199 Private property is strongly protected in the common law matrix as well, but the values we are discussing generally do not veer into the taking of private property, which, in this country at least, must be compensated. *See* U.S. CONST. amend. V.

200 Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (codified at 42 U.S.C. §§ 7401–7671q (2012)).

201 *See id.* § 109(c)(1)(A), 91 Stat. at 700.

202 *See* BRUCE A. ACKERMAN & WILLIAM T. HASSLER, CLEAN COAL/DIRTY AIR 45 (1981).

203 *Id.* at 30–32, 79–85.

204 In the somewhat similar story of the protection of the Spotted Owl and the preservation of logging jobs in the Pacific Northwest, these other options were chosen. *See* Brendon Swedlow, *Scientists, Judges, and Spotted Owls: Policymakers in the Pacific Northwest*, 13 DUKE ENVTL. L. & POL'Y F. 187, 187–88 (2003). Perhaps it was because logging was not as predominant an employment option in this region as was coal in West Virginia, but in both cases, policy choices and large expenditures were made to protect basic employment opportunities. Catherine L. Turner, *The Logging Industry's Destruction of Northern Spotted Owl Habitat: The Road to Extinction—Sweet Home Chapter of Communities for Great Oregon v. Babbit, 17 F.3d 1463 (D.C. Cir. 1994) ("Sweet Home II"), appeal docketed, No. 94-859 (S. Ct. Jan. 6, 1995)*, 14 TEMP. ENVTL. L. & TECH. J. 153, 169–70 (1995).

While providing economic sustenance does seem to have priority in prior policy considerations, this should not be seen as a version of the jobs versus environment rhetoric that is often used to criticize environmental protection.[205] Environmental protection can help or hurt certain economic sectors and development, but this is true of other policy choices that are made in U.S. law, such as agricultural protections.[206] The discussion of these first two points merely suggests that massive economic disruption is a high cost that policymakers will avoid when possible, though not when the cost is direct risk to human health. In such a case, human health will and should be protected, while other means and expenditures are used to ensure at least some economic base to large regions or swaths of society.

3. Balancing Other Interests in an Economic Efficiency Comparison

Once we move beyond the critical importance of protecting the right to health and life, and the next important value of providing society with employment and sustenance options, prior policy choices seem to suggest that other values may have equal priority and can be compared based on which is more particularly valuable. Under the National Environmental Policy Act (NEPA),[207] impacts on the human environment, including sociological and economic, are to be considered for federal actions that will have a major impact on the environment.[208] While NEPA does not require any particular weighing of these values, once the information is available, the Administrative Procedure Act (APA)[209] prevents the agency from undertaking an action that is arbitrary and capricious.[210] The arbitrary and capricious standard suggests that some balancing of harms and benefits must be logically undertaken.[211] This should take the form of comparison in economic and efficiency terms.[212]

The prioritization present in prior policy debates suggests that in fostering an integrated policy concerning environment, energy, climate, and economic development, human health should be prioritized, basic job sustenance should be provided for and protected, and other interests, such

205 *See* Bezdek et al., *supra* note 46, at 63; *see also* MURO ET AL., *supra* note 46 (analyzing the emergence of a green economy that transcends the persistent jobs versus environment argument).

206 *See* Joseph P. Tomain, *Distributional Consequences of Environmental Regulation: Economics, Politics, and Environmental Policymaking*, 4 KAN. J.L. & PUB. POL'Y, Summer 1991, at 101, 104; *see also* John A. Ragosta, *Trade and Agriculture, and Lumber: Why Agriculture and Lumber Matter*, 14 KAN. J.L & PUB. POL'Y, Fall 2004, at 413, 414, 420.

207 National Environmental Policy Act of 1969, 42 U.S.C. §§ 4321–4347 (2012).

208 *Id.* § 4332 ("[A]ll agencies of the Federal Government shall . . . utilize a systematic, interdisciplinary approach which will insure the integrated use of the natural and social sciences . . . in planning and in decisionmaking which may have an impact on man's environment . . . .").

209 Administrative Procedure Act, 5 U.S.C. §§ 551–559, 701–706, 1305, 3105, 3344, 4301, 5335, 5372, 7521 (2012).

210 JOHNSTON ET. AL., *supra* note 21, at 112–13.

211 *Id.* at 113.

212 *Id.*

as energy cost, energy independence, recreational use of federal lands, among other values, should be balanced to determine what will do the most good for the most persons.[213] Such balancing could also include compensation for societal segments forced to bear large costs, avoiding the externalizing of costs.

This, of course, does not mean that other policy choices could not be made, particularly if they were supported by the body politic and the prioritized interests were protected or compensated. But explicitly recognizing how prior choices have relied on this prioritization means that a change would need to be in a very open manner and through thorough debate.

C. Interest Group Loss Drives Debate

An extremely important factor that must be understood and addressed is how even economically efficient overall policy changes or policy changes that reflect considered value judgments may create disparate economic impacts or affect other values. Those on the losing end of these changes, as one would predict, fight the changes where they lose. Although addressed in the modern public choice literature, this dynamic has been going on for a long time.[214] In his article reviewing the Chicago Wheat Exchange, Professor Stephen Craig Pirrong noted that private parties could not cooperate to increase market efficiency, because one of the parties, the grain elevator operators, would lose their coveted comparative benefits.[215] This made government intervention the only solution[216]—but it took years of lobbying and legal challenges to get to this point.[217] On the other hand, when changes increase efficiency or embrace values that assist all parties, their passage is eased.[218] It is possible that we could have such win-win-win-win solutions in energy, climate, environment, and economic development, but compensation of losers may also be something to consider.

VI. POLITICAL DIVIDE OVER ENVIRONMENTAL PROTECTION AND ENERGY DEVELOPMENT

Any successful debate and integration of policy values in the legislative arena must also grapple with the political divisions that surround environment, energy, and climate policy. Recent polling shows that Americans divide evenly when asked what the United States should prioritize: 46% favor energy production, and 45% favor environmental

213 United Nations Environment Programme, *supra* note 54.

214 Stephen Craig Pirrong, *The Efficient Scope of Private Transactions-Cost-Reducing Institutions: The Successes and Failures of Commodity Exchanges*, 34 J. LEGAL STUD. 229, 234 (1995).

215 *Id.* at 230–31.

216 *Id.* at 248.

217 *Id.*

218 *Id.* at 255.

protection when the goals conflict.[219] This seemingly even division, however, masks substantial differences among sub-groups.[220] Democrats favor environmental protection by a wide margin while Republicans favor energy production by an even larger margin.[221] Younger Americans are more supportive of environmental protection, but older cohorts support energy production.[222] In addition, recent statistical studies show that promoting the environment can negatively affect the adoption of energy efficiency in the United States because of the political polarization surrounding environmental issues.[223]

Such polarization between political parties has not always been the case.[224] A look through the history of environmental protection policy and energy development shows not only that bipartisan effort has existed, but also that it was largely prevalent until the mid-1990s.[225] The modern political polarization in environmental politics is due in part to "those who see their interests and values aligned with long-term ecological and community sustainability" while they perceive others as being "aligned simply with short-term, self-serving outcomes at the expense of such long-term shared values."[226] Potential conflicts between energy production and environmental protection remain apparent in recent energy policy debates, such as the Obama administration's internal conflict over the proposal to build the Keystone XL pipeline between Canada and the United States,[227] and states'

219 Jeffrey M. Jones, *Americans Still Divided on Energy-Environment Trade-Off*, GALLUP, Apr. 10, 2013, http://www.gallup.com/poll/161729/americans-divided-energy-environment-trade-off.aspx (last visited Nov. 22, 2014).

220 *Id.*

221 *Id.*

222 *Id.*

223 Dena M. Gromet et al., *Political Ideology Affects Energy-Efficiency Attitudes and Choices*, 110 PROC. OF THE NAT'L ACAD. OF SCI. OF THE U.S. OF AM. 9314, 9314 (2012), *available at* http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3677426/ (demonstrating that those on the political right will avoid purchasing more expensive energy-efficient options when the choice is reflective of concerns for the environment, even though they might have otherwise purchased these options due to cost alone).

224 Riley E. Dunlap, *Climate-Change Views: Republican-Democratic Gaps Expand*, GALLUP, May 29, 2008, http://www.gallup.com/poll/107569/climatechange-views-republicandemocratic-gaps-exapnd.aspx (last visited Nov. 22, 2014) ("Historically, support for environmental protection in the United States has been relatively nonpartisan.").

225 *See* Richard N. L. Andrews, *Learning from History: U.S. Environmental Politics, Policies, and the Common Good*, 48 ENV'T: SCI. & POL'Y FOR SUSTAINABLE DEV. 9, 28, 32–33 (2006) ("The 'environmental era' has been marked by a set of distinctive features. One was unusually widespread and bipartisan grass-roots support . . . . [N]ew management statutes for national forests and public lands formalized the rights of any citizen . . . to participate in decisions about the uses of these public resources, but attempts to establish ecological sustainability as the fundamental goal of such management were reversed by changes of administration. . . . [S]uch decisions remain intensely controversial—the Clinton administration sought to protect as much land as possible from commercial use, while the Bush administration reemphasized oil and gas extraction and ranching . . . . ") (citations omitted).

226 *Id.* at 44.

227 John M. Broder & Dan Frosch, *U.S. Delay Decision on Pipeline Until After Election*, N.Y. TIMES, Nov. 10, 2011, http://www.nytimes.com/2011/11/11/us/politics/administration-to-delay-pipeline-decision-past-12-election.html?smid=pl-share (last visited Nov. 22, 2014).

consideration of the pros and cons of fracking.[228] It is important that we look back to history to see if we can bridge this political impasse to promote an integrated environmental, energy, climate, and economic policy that can best suit the collective needs of the people.

A. Historical Perspective: Shifting Political Ideologies and Cooperation

For at least the first seventy-five years of U.S. history, neither the concept of the land ethic nor the romantic vision of environmental protection had a strong influence on government policy.[229] Although there were some elements of a preservationist mentality present in the early colonial resource policies, expansionist ideals rapidly overcame these sentiments.[230] By the late 19th century, with open land becoming scarcer, some of the private environmental organizations began having an impact on public policy.[231] As a result, the federal government started to modify its earlier policies of selling public lands at low cost, and instead began establishing agencies and enacting legislation oriented toward a more preservationist mission, viewing the environment as having intrinsic value that should be preserved by making as little change as possible.[232] In the Progressive Era, under the presidency of Theodore Roosevelt, the United States intervened in the resource arena more actively through a conservationist policy, where the environment and natural resources were sought to be preserved for their continued sustainable use by humans.[233] Environmentalists, such as John Muir, who felt nature was sacred and should not be developed, also first gained influence during this period, experiencing some success in minimalizing commercial use of water resources and forests despite utilitarian conservation still being the dominant theory of the time.[234]

Franklin Roosevelt also adopted the idea of conservationism, as seen through his New Deal conservation programs, which led to the building of many large-scale dams and water projects, as well as the expansion of the National Forest system.[235] These policies—from land set-asides and

228 Jones, *supra* note 219.

229 JACQUELINE VAUGHN SWITZER, GREEN BACKLASH: THE HISTORY AND POLITICS OF ENVIRONMENTAL OPPOSITION IN THE U.S. 2 (1997).

230 *Id.* at 3.

231 *Id.* at 4.

232 *Id.* (explaining that change is exemplified by several congressional actions, including legislation that authorized the president to reserve public lands as forest reserves, the creation of national parks such as Yosemite and Yellowstone, and the passage of the Rivers and Harbors Act of 1899).

233 Library of Cong., *Progressive Era to New Era, 1900-1929: Conservation in the Progressive Era*, http://www.loc.gov/teachers/classroommaterials/presentationsandactivities/presentations/timeline/progress/conserve (last visited Nov. 22, 2014).

234 Neil M. Maher, *"A Conflux of Desire and Need": Trees, Boy Scouts, and the Roots of Franklin Roosevelt's Civilian Conservation Corps*, *in* FDR AND THE ENVIRONMENT 49, 57–58 (Henry L. Henderson & David B. Woolner eds., 2005).

235 *See* Richard N. L. Andrews, *Recovering FDR's Environmental Legacy*, *in* FDR AND THE ENVIRONMENT, *supra* note 234, at 221–24.

construction in national parks to rural electrification—were justified on the pillars of resource conservation, energy availability, and economic development.[236] After World War II, the federal government turned its attention from resource management to pollution-related issues in response to public concerns.[237] However, this period has also been described as a time of difficulty in determining what level of government could or should address the problem.[238] Environmental groups became fragmented and lacked a common agenda as traditional groups lobbied for preservation while others focused on urban pollution or public health concerns.[239]

In the late 1960s, the nation was otherwise reeling from an onslaught of socially divisive political issues, ranging from the Vietnam War to civil rights.[240] According to Professor Richard Lazarus, environmental protection provided a much needed opportunity for Americans to rally around a positive, aspirational objective for the future.[241] As a result, the 1970s marked the heyday of the modern environmental era, resulting in sweeping bipartisan support of legislation attempting to afford new protections for the environment.[242]

In retrospect, this era of bipartisan cooperation on environmental policy has been termed a "republican moment" in the traditional sense of the word, in which civic republicanism promotes a "willingness of individuals to undergo sacrifices to promote the public good."[243] Now, however, we face another kind of "Republican moment," in which political parties define opposing boundaries toward environmental protection.[244]

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236 *Id.* at 226.

237 Arnold W. Reitze, Jr., *The Legislative History of U.S. Air Pollution Control*, 36 HOUS. L. REV. 679, 696 (1999).

238 *Id.* at 698.

239 *See* Jonathan Cannon & Jonathan Riehl, *Presidential Greenspeak: How Presidents Talk About the Environment and What it Means*, 23 STAN. ENVTL. L.J. 195, 254–55, 266–67 (2004).

240 Richard J. Lazarus, *A Different Kind of "Republican Moment" in Environmental Law*, 87 MINN. L. REV. 999, 1002 (2003).

241 *Id.*

242 President Nixon signed the National Environmental Policy Act of 1969 on January 1, 1970. Pub. L. No. 91-190, 83 Stat. 852 (codified at 42 U.S.C. §§ 4321–4370h (2012)). Congress followed by passing the Clean Air Amendments of 1970, Pub. L. No. 91-604, 84 Stat. 1676 (codified at 42 U.S.C. §§ 7401–7671 (2012)), the Federal Water Pollution Control Act Amendments of 1972, Pub. L. No. 92-500, 86 Stat. 816 (codified as amended at 33 U.S.C. §§ 1251–1387 (2012)), the Endangered Species Act of 1973, Pub. L. No. 93-205, 87 Stat. 884 (codified at 16 U.S.C. §§ 1531–1544 (2012)), the Federal Insecticide, Fungicide, and Rodenticide Act Amendments, Pub. L. No. 94-140, 89 Stat. 751 (1975) (codified at 7 U.S.C. §§ 136–136y (2012)), the Toxic Substances Control Act, Pub. L. No. 94-469, 90 Stat. 2003 (1976) (codified at 15 U.S.C. §§ 2601–2692 (2012)), and the Resource Conservation and Recovery Act of 1976, Pub. L. No. 94-580, 90 Stat. 2795 (codified at 42 U.S.C. §§ 6901–9675 (2012)). Congress made substantial revisions in 1977 of both the clean air and clean water legislation. *See* Clean Air Act Amendments of 1977, Pub. L. No. 95-95, 91 Stat. 685 (codified at 42 U.S.C. §§ 7401–7642 (2012); Clean Water Act of 1977, Pub. L. No. 95-217, 91 Stat. 1566 (codified at 33 U.S.C. §§ 1251–1287 (2012)); *see also* Richard J. Lazarus, *The Tragedy of Distrust in the Implementation of Federal Environmental Law*, 52 LAW & CONTEMP. PROBS. 311, 323–28 (1991) (further explaining the passage of environmental protection statutes in the 1970s).

243 Lazarus, *supra* note 240, at 999.

244 *Id.* at 1004.

With the Republican Party generally favoring "less stringent environmental controls and increased resource exploitation" and the Democratic Party generally favoring "stronger environmental protection standards and resource conservation and preservation laws," a possible values conflict which could be considered and balanced has become politicized.[245]

> Much of the substantive policy disputes derive from differing attitudes towards the use of discount rates in assessing the benefits of environmental controls as well as differing degrees of faith in the ability of future technological innovation to obviate the need for controls now. . . .
>
> The differences in viewpoint and outlook between the two major parties, however, extend even further and deeper. They are fundamentally opposed on matters of lawmaking principles, including the extent to which private property rights to natural resources should be protected, the efficacy and neutrality of market forces, and the necessity of a strong national government on matters of public health and welfare. . . .
>
> The partisan divide in environmental law has deepened to such an extent in recent years that it is now evident in the workings of all three branches of the federal government.[246]

Thus, according to those who have analyzed the history of environmental lawmaking, the period since 1994 represents a complete turn from the bipartisan cooperation of the 1970s, with no consensus on different policies or even a willingness to collaborate in reforming these policies further, but rather "a period of partisan and ideological divisions, distrust, and dysfunctional politics."[247]

> The support for effective governance that created the new deal, or even that produced the EPA itself in the 1970s, had been replaced by a pervasive distrust toward governance, which was all too easily justified by politicians who increasingly abused it while cynically manipulating public distrust to undermine it further.[248]

This loss of bipartisan cooperation extends far beyond environmental policy. Moving into the economic development realm, while both parties espouse the need for economic growth, prescriptions diverge sharply, especially as to the need for government policy and resources directed at lessening income inequality.[249] This suggests a divide on the implementation

245 *Id.*

246 *Id.* at 1004–06.

247 Andrews, *supra* note 235, at 41.

248 *Id.* at 40.

249 *See* PEW RESEARCH CTR. FOR THE PEOPLE & THE PRESS, MOST SEE INEQUALITY GROWING, BUT PARTISANS DIFFER OVER SOLUTIONS, Jan. 23, 2014, http://www.people-press.org/2014/01/23/most-see-inequality-growing-but-partisans-differ-over-solutions/2/ (last visited Nov. 22, 2014)

side of the economic prong of policy, but also shows some confluence of broad interests.

B. What Could Remove Some of the Politicization?

Possible methods of creating bipartisanship and bridging the political gulf between environment and energy may include better recognition of diverse and aligned interests, an appeal to moral values, and a strengthening of political leadership.

1. Recognition of Diverse Interests

Professor Andrews notes:

> The political battle lines in national environmental[, energy, climate, and development] politics are often portrayed as environmental advocacy groups versus businesses and property owners, liberals versus conservatives, blue states versus red states, elitists versus common people. . . . [H]owever, these divisions do not accurately define the environmental[, energy, or economic] interests at stake.[250]

Many businesses may have economic interests that align with environmental protection, as regulations may favor one model or technology over another.[251] In other cases, certain major industries may see divergent impacts on profit.[252] This was certainly true of the split between electricity-generating businesses and fossil fuel producers in the climate change legislative debate.[253]

The need for the public to come back to some form of a common agenda or vision seems necessary for integrative and effective environmental, energy, climate, and economic policy to occur.

2. The Moral Argument

Many evangelical groups, which are traditionally associated with conservative Republican politics, have rallied around climate change as a defining moral issue of our time.[254] This move back to the moral

(explaining partisan differences in approaches to, and the need for, economic and income inequality reform).

250 Andrews, *supra* note 235, at 43.

251 *Id.*

252 *Id.*

253 Thomas O. McGarity, *The Disruptive Politics of Climate Disruption*, 38 NOVA L. REV. 393, 435–36 (2014).

254 *See* EVANGELICAL CLIMATE INITIATIVE, CLIMATE CHANGE: AN EVANGELICAL CALL TO ACTION, 4–5 (2007), *available at* http://www.npr.org/documents/2006/feb/evangelical/calltoaction.pdf (containing signatures of more than 80 leaders of evangelical organizations in support of an immediate, science-based response to climate change as a matter of moral duty); Theodore Schleifer, *Religious Conservatives Embrace Pollution Fight*, N.Y. TIMES, July 30, 2014, http://www.nytimes.com/2014/07/31/us/religious-conservatives-embrace-proposed-eparules.html?_r=0

underpinnings of the environmental movement signals that there is policy overlap between the political parties. A group of evangelicals recently called on John Kerry and Newt Gingrich to stop politicizing climate.[255] Capitalizing on this overlap can foster progress on bridging the polarization that exists in the energy–environment space.

3. Leadership

Integrated policy is also in need of strong leadership, which can focus policy toward achieving the collective agendas of the U.S. public.

> The history of U.S. environmental policy also suggests that strong protective policies for the common good have occurred only under unusually strong and visionary presidential leadership (as under Theodore Roosevelt and Franklin D. Roosevelt, for instance) or in response to intensively mobilized public demand (as in the recent environmental era), which often emerges in response to crises and is itself inherently difficult to sustain.[256]

The last decades have not seen any comparatively strong leadership in the environmental arena.[257] Strong action is still possible, however, in crisis, as was seen in the bipartisan response to the potential economic collapse in 2008.[258] Leadership could also provide cover for Republican politicians by reframing the issue as one of property rights and economic efficiency. The market failure of the tragedy of the commons underlying environmental law is at root a conservative construct.[259] It posits that individuals should bear the cost of their actions to create a more efficient market.[260]

4. Environmental, Energy, and Economic Development As an Opportunity for Bipartisan Cooperation

In a time with increasing environmental effects and concerns and new energy and technology concerns—ranging from the threat of global warming to pollution—it is important that political parties attempt to work together

(last visited Nov. 22, 2014) (indicating that an increasing number of conservative Christians support responding to climate change as a matter of their faith).

255 *See* Stoyan Zaimov, *Gingrich Calls Kerry "Delusional" for Calling Climate Change "Greatest Challenge of Generation;" Evangelicals Respond*, THE CHRISTIAN POST, Feb. 19, 2014, http://www.christianpost.com/news/gingrich-calls-kerry-delusional-for-calling-climate-change-greatest-challenge-of-generation-evangelicals-respond-114848/ (last visited Nov. 22, 2014) (showing evangelicals urge bipartisan climate change cooperation, and warning the dangers of polarizing the issue).

256 Andrews, *supra* note 235, at 42.

257 *Id.*

258 Rachel D. Godsil & David Simunovich, *Protecting Status: The Mortgage Crisis, Eminent Domain, and the Ethics of Homeownership*, 77 FORDHAM L. REV. 949, 949 (2008).

259 *See generally* Jane Maslow Cohen, *Foreword to Symposium, of Waterbanks, Piggybanks, and Bankruptcy: Changing Directions in Water Law*, 83 TEX. L. REV. 1809, 1849 (2005) (describing private property rights proponents' view that the management of property as a common resource has marginal utility).

260 *Id.*

to create an integrative policy. Doing so, however, as seen from history, will require a common vision of the common public good, strong leadership, and compromise, which will help bring us back to a period in which we can make effective integrative policy.

Perhaps joint consideration of environmental, energy, climate, and economic policy could lead to another "republican moment" where all could agree on the protection of individuals' health, as well as the need for basic human sustenance—sustainability writ large. While it may seem that the economic and environmental policies of the political parties seem far apart, the discussion of, and perhaps agreement on, these basic goals of health entitlement and employment availability could move forward as there could be agreement, at these high levels, between the political parties. At the very least, this Article provides a game plan to start such a discussion.

VII. CONCLUSION

As we have demonstrated, no previous policy aimed at integrating our environment, energy, climate, and economics—or a subset of these—has proven successful.[261] While different root causes may exist for each, a lack of continuing analysis and rebalancing of benefits and harms is present.[262] This is likely due to those who feel the policy is benefiting them attempting to dissuade any revisiting of an issue in case it is determined that the policy, as currently implemented, is doing less good—or more harm—than another formulation would. This lack of investigation, however, leads to policy not meeting integrated goals.

To conceive a national policy that will adequately address these values, we must cooperate and aim to heal the polarization in our society that has come from thinking some of them must be sacrificed for the others to be achieved. That is simply not the case. As proposed, all four areas can be achieved by stressing what needs to be done first to protect human health, minimizing the risk of massive economic disruption, and balancing other harms and benefits taking noneconomic factors into consideration.[263]

This assumes, of course, a functioning, deliberative legislative process, one in which citizens can take part in the balancing exercises of the body politic. History has shown us that cooperation on these issues is possible,[264] and we must strive for that again. In fact, this very need for integrative policymaking could spur such cooperation if the parties could agree on the need for policy changes and some possible core values. In the crisis forged by our continued environmental and economic challenges, including climate and energy development, we have the chance to develop an integrated national policy that meets the needs of all stakeholders.

261 *See supra* Part IV.A–B.

262 *See supra* Part IV.A.

263 *See supra* Part V.B and accompanying footnotes.

264 *See supra* Part VI.A.