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Clean Power Policy in the United States

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Within the last year, the Obama administration has taken two significant and dramatic steps addressing the challenges of climate change and demonstrating a renewed leadership role for the US. First, as a signatory to the Paris climate agreements, the US has stepped forward to participate in that global effort after years of recalcitrance. The US, for example, signed the Rio Declaration in 1992 but five years later would not ratify the 1997 Kyoto Protocol. Now, though, the US has reversed course and has reentered the international climate conversation.

Briefly, on December 12, 2015, meeting in Paris under the auspices of the UN Framework Convention on Climate Change, 195 nations, including the US, agreed to what has been hailed as an historic climate agreement.¹ The agreement was recognized as a “turning point, that this is the moment we finally determined we would save our planet” and that the assembled nations “share a sense of urgency about this challenge and a growing realization that it is within our power to do something about it.”² Then, on Earth Day April 22, 2016, 175 countries, again joined by the US, became signatories to the agreement³ pledging to reduce carbon emissions with the intent of keeping global warming below 2°C while pursuing the more ambitious target of limiting temperature increases to 1.5°C from pre-industrial levels. Although the short 11-page agreement does not set legally binding emissions limits, the parties committed themselves to a regime that requires them to report on the

¹ Coral Davenport, *Nations Approve Landmark Climate Accord in Paris*, N.Y. TIMES (December 12, 2015).

² White House, Remarks by President Obama at the First Session of COP₂₁ (November 30, 2015) available at <https://www.whitehouse.gov/the-press-office/2015/11/30/remarks-president-obama-first-session-cop21>.

³ United Nations, *Sustainable Development Goal: List of Parties That Signed the Paris Agreement on 22 April* available at <http://www.un.org/sustainabledevelopment/blog/2016/04/parisagreementsignatures/>.

progress of their commitments every five years beginning in 2020.⁴

The second significant climate initiative came on the domestic front as the Obama administration issued its Clean Power Plan (CPP), which promises to transform US energy policy and facilitate the ongoing transition to a clean power economy. Indeed, President Obama has called the CPP “the biggest, most important step we’ve ever taken to combat climate change.”⁵ His administration has now committed the federal government to engaging this global problem. I must hasten to add, though, it has done so not without substantial and ongoing legal and political opposition.

It is important to recognize the extent to which the new EPA rule affects the electricity industry and its regulation. On June 14, 2014, the EPA publicized proposed rules for the CPP. A little over one year later, on October 23, 2015, final rules were published in the Federal Register thus making them the official law of the land.⁶ The rules are complex; they are directed to reducing emissions from existing electric power plants, particularly coal-fired facilities; and they cover the entire country. The scope of the CPP is broad, its provisions are many, and the legal challenges are substantial.⁷

Curiously, perhaps, the CPP has been issued not by the Department of Energy (DOE) but by the Environmental Protection Agency (EPA). The fact that the EPA, the country’s leading environmental agency, has promulgated what are essentially energy regulations, demonstrates the complexity of, as well as the challenges facing, US energy/environmental policy and politics. By way of example, in the first instance, the EPA has legal responsibility for clean air regulations⁸ including those involve carbon dioxide emissions.⁹ Consequently, the agency should address climate change as part of its clean air mandate. In the second instance, however, the EPA does not have responsibility for energy policy, yet the CPP directly targets coal-fired power plants because they account for 37% of the carbon dioxide emitted in the US. The EPA’s entrance into the energy sector is unusual because most energy policy, at the federal level, is conducted by the Federal Energy Regulatory Commission (FERC), an agency housed within the DOE. Adding a further complication, electricity generation is also regulated by the several states each with their own power needs and with their own distinctive energy resource bases that are used to generate electricity.

⁴ United Nations Framework Convention on Climate Change, Paris Agreement, FCCC/CP/2015/L.9/Rev.1 (December 12, 2015) available at <http://unfccc.int/resource/docs/2015/cop21/eng/109r01.pdf>.

⁵ Coral Davenport & Gardiner Harris, *Obama to Unveil Tougher Climate Plan With His Legacy in Mind*, N.Y. TIMES 1 (August 2, 2015).

⁶ Environmental Protection Agency, *Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Generating Units; Final Rule*, 80 FED. REG. 64661(2015) (FINAL RULE).

⁷ WILLIAM W. BUZBEE ET AL., *THE CLEAN POWER PLAN: ISSUES TO WATCH* (2015) (a report for the Center for Progressive Reform); Emily Hammond & Richard J. Pierce, Jr., *The Clean Power Plan: Testing the Limits of Administrative Law and the Electric Grid*, _____ (forthcoming 2016).

⁸ The Clean Air Act, 42 U.S.C. §7401 et seq. (1970).

⁹ *Massachusetts v. EPA*, 549 U.S. 497 (2007) (US Supreme Court held that the EPA has the legal authority and responsibility for regulating carbon dioxide as an air pollutant).

Of most immediate concern, though, is that the CPP is now in legal limbo. On February 9, 2016, the United States Supreme Court issued an order to the EPA ruling that the CPP could not go forward; in legalese, those regulations were “stayed.”¹⁰ The order was a 5-4 decision that included Justice Scalia in the majority one week before his death leaving his seat on the Court vacant. Justice Scalia’s vote is decidedly significant not only because he voted to stay the CPP but, all bets are, he would have voted against it if and when the case reaches Supreme Court.¹¹ Most notably, the order staying a government agency from doing its job was unprecedented. At no time in its history had the Supreme Court stopped an agency from carrying out its constitutional obligations while litigation was pending.

To be sure the CPP has its defenders as well as its detractors and the Plan is subject to continuing litigation as arguments about its legality were heard in June 2016 in the United States Court of Appeals for the District of Columbia Circuit.¹² Given the highly unusual nature of the Supreme Court’s stay, however, even after the lower court issues its opinion, the legality of the CPP remains an open question. Either way the Court of Appeals rules, it is likely that a further appeal to the US Supreme Court will occur while the stay remains in place.

Regardless of the legal outcome from either the lower court or the Supreme Court, the significance of the CPP for a successful transition to a clean power economy must be underscored. Simply from the fact that the EPA rather than Department of Energy (DOE) issued the CPP, a connection between environmental and energy policy, specifically for the purpose of attending to climate change, has been undertaken by the federal government and that connection promises to align federal energy policy with environmental goals in unprecedented ways. Energy and environmental regulators, as well as affected industries, would be, at the least, unwise and more likely negligent to ignore this signal. Moreover, this announcement of federal policy simply joins other initiatives taken by the states and by private markets interested in furthering the transition to a clean power economy. Going forward, future national energy policy must recognize the environmental consequences of the fuel cycle especially the harmful costs of the pollutants emitted during their burning and disposal. Future energy policy must also recognize that renewable resources and energy efficiency must be essential elements in the country’s energy mix.

The linkage between energy and the environment may well be the most lasting legacy of the CPP. Yet, the significance of these rules go beyond connecting the two. The CPP can change the US energy paradigm, and with it, the US energy economy in two notable ways. First, the CPP signals a transition away from our traditional fossil fuel energy economy to a clean power economy thus joining the several efforts already operating in Europe. Second, the CPP

¹⁰ *Chamber of Commerce, et al., v. EPA, et al.*, 577 U.S. ___ (February 9, 2016) available at http://www.supremecourt.gov/orders/courtorders/020916zr3_hf5m.pdf.

¹¹ See e.g. Lisa Heinzerling, *The Power Canons*, 58 WM. & MARY L. REV. ___ (2016).

¹² *State of West Virginia, et al. v. EPA, et. al.* Docket No. 15-01363 (D.C. Cir Oct. 13, 2015).

recognizes that the basic assumption of traditional energy policy – that there was a direct and positive correlation between energy production and consumption and economic growth – is no longer operative for a developed country like the US. Our energy economy, the industries that sustain it, and the consumers that use it, can prosper with less energy consumption per capita rather than with ever increasing energy production. In fact, the US has been experiencing increases in energy efficiency for decades now as we consume less energy for each dollar of gross domestic product that is spent.¹³

The most significant aspect of the CPP is the federal recognition that not only has the country been experiencing a transition to a clean power economy but that transition must be accelerated and can be done economically with cleaner energy resources. The energy transition can increase productivity by adopting efficiency measures, financing renewable energy, developing alternative fuels and vehicles, and encouraging utilities and their regulators to adapt to new business realities.¹⁴ In these ways, the CPP can be a positive force that promotes technological innovation, creates new energy markets with new energy entrants, and encourages federal and state regulatory reforms to encourage and support the transition to a clean power future.

The promises of a clean power future are many and the US, as well as many other countries, are moving precisely in that direction. It is the intent of this paper, then, to highlight the most significant aspect of the CPP which is the alignment of energy and environmental law, policy, and regulation. The alignment, however, will encounter significant challenges that must be understood. Those challenges can best be understood by examining: (1) the relationship between energy law and policy and environmental law and policy as it has developed over the last four decades; (2) the predominant regulatory method utilized by each discipline; and (3) the political and legal frameworks within which they operate. This paper will discuss each of these elements in turn.

The Awkward Relationship between Modern Energy Law and Environmental Law

The disciplines of US environmental law and energy law, in the forms that we know them today were largely developed in the 1970s. Both disciplines were governed by predecessor legal regimes and it is not inaccurate to say that both were born from specific crises.

Contemporary environmental law emerged from an historic socio-political cultural moment often referred to as “the sixties.” The 1960s in the US, as well as in other countries

¹³ US ENERGY INFORMATION ADMINISTRATION, MONTHLY ENERGY REVIEW 16 (June 2015).

¹⁴ CENTER FOR THE NEW ENERGY ECONOMY, POWERING FORWARD: PRESIDENTIAL AND EXECUTIVE AGENCY ACTIONS TO DRIVE CLEAN ENERGY IN AMERICA 1 (2014).

of Europe, experienced profound transitions many of which we are living with today. Of the several social and political movements for which that decade is recognized, such as the civil rights and the women's movements, the environmental movement was a significant strand in that history.

The story of environmentalism has been told other times and a key part of that history is that public consciousness was raised about the many ways in which anthropogenic behavior harms, and in many instances, destroys the environment.¹⁵ While many of the key texts giving rise to the environmental movement were popularized during the early 1960s, that consciousness was brought into sharper focus in 1969 with a major oil spill off the coast of Santa Barbara, California that, in turn, led to the passage of significant environmental laws, most notably the National Environmental Policy Act and associated legislation, in 1970.¹⁶ As history shows, though, prior to this legislation, federal and state legislation was enacted to promote resource conservation, wilderness protection, and the creation of national parks all addressing the nation's environmental concerns.

Contemporary energy law was also generated by a crisis – the 1973 energy crisis caused by the Arab oil embargo. To be sure, the embargo, similar to the California oil spill, brought other tensions to a head thus generating specific national legislative responses. In the case of energy, the driving tension then, as now, was oil. More specifically, the overriding concern was weakening domestic oil production with corresponding increases in imports.

Prior to 1973, the US began to focus on the matter of energy independence. More particularly, the country became concerned about the growing role played by foreign oil producers, most particularly Middle East oil countries, in global oil markets. In the mid-1950s, domestic production was insufficient to satisfy domestic demand and oil imports began, first slowly, then in earnest. In order to protect domestic oil producers, the Eisenhower administration passed legislation in 1959 known as the Mandatory Oil Import Quota Program which, as its name indicates, capped cheap oil imports specifically for the purpose of propping up prices for domestic oil firms. In retaliation to the quota, the Organization of Petroleum Exporting Countries was created which exercised its oligopoly power to set global oil prices until recently. Later, in 1970, US domestic oil production peaked and imports grew annually thus exacerbating concerns over imported oil.

In 1973, Middle East oil countries were angered by US support for Israel during the Arab-Israeli war of that year. In retaliation, OPEC tightened the spigot on oil flowing to the United States and those restrictions severely damaged the US economy. Briefly, the price of

¹⁵ See e.g. Jedediah Purdy, *The Politics of Nature: Climate Change, Environmental Law, and Democracy*, 119 YALE L. J. 1122 (2010); RICHARD J. LAZARUS, *THE MAKING OF ENVIRONMENTAL LAW* (2004); RICHARD N.L. ANDREWS, *MANAGING THE ENVIRONMENT, MANAGING OURSELVES: A HISTORY OF AMERICAN ENVIRONMENTAL POLICY* (2d ed. 2006).

¹⁶ National Environmental Policy Act, 42 U.S.C. §4321 et seq.; The Clean Air Act of 1970, *see also* the Clean Water Act of 1972.

oil quadrupled and, together with other economic dislocations such as Vietnam War expenditures, the United States experienced double-digit inflation; consumers waited in gas lines to fill their cars; and the economy flattened. The ability of foreign countries to so dramatically impact the domestic economy was the energy crisis that focused the country's attention on the need for independence from foreign, particularly Middle East, oil. The political response was the enactment of major energy legislation starting with President Nixon imposing price controls on the oil industry as part of a set of price controls on the general economy. Following price controls, legislation was specifically designed to reduce oil imports, first by shifting to coal rather than oil for electricity generation and then by a whole range of other energy measures.

Energy regulation became more focused during the Carter administration with the passage of the National Energy Act of 1978¹⁷ and the Energy Security Act of 1980.¹⁸ Both acts consisted of several different bills addressing the regulation of oil, coal, electricity, nuclear power, energy taxation, and alternative energy forms among other issues. This legislation was President Carter's attempt at the comprehensive and coordinated regulation of energy resources and markets. While the bills did give rise to the discipline of energy law,¹⁹ energy regulation was neither coordinated nor comprehensive.²⁰

Like modern environmental law, energy law had a variety of predecessors. Unsurprisingly, energy regulation tracked technological innovations. From the middle to the end of the 19th century, for example, both the oil and electricity industries were largely unregulated. Parenthetically, natural gas regulation later became a national concern in the 1920s and 1930s. Technological improvements, however, modernized oil pipelines and electricity transmission with the consequence that both oil and electricity could travel further distances. Additionally, the transportation segments of both industries were perceived to be natural monopolies. The ability to move energy resources over longer distances together with each industry's network characteristics, enabled oil and electricity companies to consolidate. And, it was that consolidation that gave rise to early energy regulations. The ability of energy firms to exercise market power led to local utility regulation followed by state regulation and then, as transportation moved into interstate commerce, to federal regulation.

¹⁷ The National Energy Act of 1978 consisted of: the Public Utility Regulatory Policies Act, Pub. L. No. 95-617; the Energy Tax Act, Pub. L. No. 95-618; the National Energy Conservation Policy Act, Pub. L. No. 95-619; the Power Plant and Industrial Fuel Use Act, Pub. L. No. 95-620; and the Natural Gas Policy Act Pub. L. No. 95-621.

¹⁸ The Energy Security Act of 1980, Pub. L. No. 96-294.

¹⁹ See e.g. Fred Bosselman, *A Brief History of Energy Law in United States Law Schools: An Introduction to the Symposium*, 86 CHI.-KENT L. REV. 3 (2010).

²⁰ See e.g. LINCOLN L. DAVIES & JOSEPH P. TOMAIN, *ENERGY LAW IN THE UNITED STATES OF AMERICA* 29-40 (2015).

In the electricity industry, public utility laws, to some extent,²¹ checked the market power of increasingly larger investor owned electric utilities (IOUs). The oil industry encountered another problem that called for government regulation – overabundance. Large oilfields were discovered in various parts of the United States and with a rapid increase of supply, the cost of oil plummeted from roughly 2 dollars a barrel to a nickel a barrel at the turn of the 20th century. The rush to produce drove prices down to unsustainable levels thus pushing states to regulate the oil industry through oil and gas conservation laws such as unitization and proration. In short, those laws were designed to reduce the incentive to bring as much oil and gas out of the ground as quickly as possible.²² Through these laws, oil supplies were controlled and prices were stabilized.

It should be seen, then, that energy law and environmental law developed differently because they were driven by distinct concerns. Additionally, the disciplines adopted distinct perspectives about regulation. Energy law is the quintessential example of economic regulation, which attempts to control market power abuses and promote competition. Environmental law, by contrast, is a quintessential example of social regulation, which attempts to promote public goods such as clean air, water and land as well as preserve ecological systems and species. These different worldviews have been embedded in the regulatory structures that surround each field. Furthermore, to date, these worldviews have not been seen as complementary and to the extent that they do fail to complement each other, then they may slow the clean energy transition.

The Current and Future Regulatory State

At various times in US history, the regulatory state and the administrative agencies within it, have achieved notable beneficial results. Air and water are cleaner, species are preserved, workplaces and food are safer, and the safety record of airlines and nuclear power plants is positive.²³ Government regulation, then, can be seen to have performed well. Nevertheless, the regulatory problems that we must now confront have changed, sometimes in extraordinarily dramatic ways, thus necessitating changes in the structure and the policy assumptions behind the principles of the regulatory state.

²¹ Public utility laws cannot be said to have been enacted purely in the public or consumer interest. As described below, these laws granted public utilities effective monopolies. Consequently, regulated utilities were virtually guaranteed a return on their investment and they were protected from competition.

²² JOSEPH P. TOMAIN, *ENDING DIRTY ENERGY POLICY: A PRELUDE TO CLIMATE CHANGE* ch. 1 (2011); LINCOLN L. DAVIES & JOSEPH P. TOMAIN, *ENERGY LAW IN THE UNITED STATES OF AMERICA* 143-53 (2015).

²³ See e.g. Robert Weissman, *The Obama Administrations Regulatory War on Jobs, the Economy, and America's Global Competitiveness*, TESTIMONY BEFORE THE SUBCOMMITTEE ON REGULATORY REFORM, COMMERCIAL AND ANTITRUST LAW U.S. HOUSE OF REPRESENTATIVES (February 28, 2013) available at <http://www.citizen.org/documents/weissman-regulation-testimony-feb-2013.pdf>.

More precisely, current energy/environmental regulation has three notable deficiencies. First, the traditional regulatory method operates too narrowly. The traditional method is reactive rather than proactive; it pays attention to past events rather than plans for the future; and it focuses on specific problems rather than on systemic fixes. Second, energy and environmental regulation occur in disciplinary silos. And, third, each discipline operates within its own legal and political frame. As a result of all of these deficiencies, the current structure of energy/environmental regulation is insufficient to address climate change. On a more hopeful note, the CPP, at the very least, exposes these deficiencies and suggests a positive way forward.

Traditional Regulatory Method and Its Limitations

The archaeology of the American administrative state reveals several layers. It is notable, though, that despite the neoliberal rhetoric about free markets and minimal or no government, that the United States has had an administrative apparatus since its founding.²⁴ At that time, the administrative reach was limited although the central government did adopt a mercantilist policy through a centralized monetary program facilitated through trade tariffs and the National Bank. Unfortunately, the National Bank was susceptible to abuse and corruption which led to the Bank becoming a target of populist critique, which, in turn, resulted in an anti-government attitude and a laissez-faire politics in the 1820s.

Following the Jacksonian laissez-faire period in the mid-18th century, Progressive Era agencies were established as a countervailing weight to the concentration of power and influence among a few persons and their corporations that resulted from the Industrial Revolution. These agencies, which are frequently referred to as the first “modern administrative agencies,” adopted specific organizational characteristics discussed below.

The general view is that modern administrative law and policy began late in the 19th century with the passage of the Interstate Commerce Act and the creation of the Interstate Commerce Commission (ICC).²⁵ The now defunct ICC was specifically instituted to combat consolidation in the railroad industry. Railroad owners, as well as major shippers such as Rockefeller’s Oil Trust, were able to manipulate prices specifically for the purpose of eliminating competition. In response, the federal agency was established to check that market power. The Progressive model was both resilient and adaptable and was used extensively during

²⁴ See generally Jerry L. Mashaw, *Recovering American Administrative Law: Federalist Foundations, 1878-1801*, 115 YALE L. J. 1186 (2006); Jerry Mashaw, *Reluctant Nationalists: Federal Administration and Administrative Law in the Republican Era, 1801-1829*, 116 YALE L. J. 1636 (2007); Jerry Mashaw, *Administration & “The Democracy”: Administrative Law from Jackson to Lincoln, 1829-1861*, 117 YALE L. J. 1586 (2008); Jerry Mashaw, *Federal Administration and Administrative Law in the Gilded Age*, 119 YALE L. J. 1362 (2010).

²⁵ See e.g. SIDNEY A. SHAPIRO & JOSEPH P. TOMAIN, *ACHIEVING DEMOCRACY: THE FUTURE OF PROGRESSIVE REGULATION* 24-27 (2014).

the New Deal in the 1930s specifically for broad-based economic regulation. During the New Deal, agencies proliferated as society grew more complex and as the country uncovered more social and economic problems that needed to be corrected.

New Deal agencies retained a similar organizational form as those established at the end of the 19th century. They were established to address an identified problem through the application of technical expertise. Instead of functioning as intended, though, both regulators and their regulated entities adopted similar structural characteristics and grew dependent upon one another. Regulators needed information and expertise from the industries that they regulated and, in return, the regulated firms expected some protection from and assurances against what they perceived to be unwarranted competition from new entrants. Regulators, in other words, helped sustain the very industries and firms that they were ostensibly “regulating.” In short, the regulator-regulatee relationship was susceptible to, and not infrequently resulted in, capture.²⁶

This traditional approach to regulation was further entrenched in 1947 when Congress passed the Administrative Procedure Act (APA). The APA was intended to bring order to the various procedures used by the welter of administrative agencies that had been created during the New Deal by rationalizing and formalizing agency action. The basic idea behind the APA was that all agencies should more or less follow similar procedures with judicial review available for their failure to do so. The Act was supported by regulated industries that saw it as a way to cabin agency discretion and, concomitantly, reduce the cost of what they perceived to be cumbersome regulations.

Lyndon Johnson’s presidency produced another set of administrative agencies in the 1960s, which differed from those established during the New Deal. Johnson’s Great Society programming shifted regulation away from a concentration on economic regulation to encompass social regulation.²⁷ Public interest and environmental advocates grew distrustful of government. They perceived a pattern of regulatory capture by those industries that were ostensibly controlled by economic regulation. As an antidote to that capture, not only did these new agencies focus on social issues they also considered, and adopted, an interest representation model of regulation, an adjustment captured in Richard Stewart’s iconic article, “The Reformation of American Administrative Law.”²⁸

The interest representation model was intended to ensure that citizens and consumers would have more input into the regulatory process, which was increasingly involved in the economic, political, and social dimensions of their lives. Stewart predicted correctly that the

²⁶ See generally DANIEL CARPENTER & DAVID A. MOSS (eds.), *PREVENTING REGULATORY CAPTURE: SPECIAL INTEREST INFLUENCE AND HOW TO LIMIT IT* (2013).

²⁷ See e.g. RANDALL B. WOODS, *PRISONERS OF HOPE: LYNDON B. JOHNSON, THE GREAT SOCIETY, AND THE LIMITS OF LIBERALISM* (2016).

²⁸ Richard B. Stewart, *The Reformation of American Administrative Law*, 88 HARV. L. REV. 1667 (1975).

interest representation model would fail. His argument was that there were collective action problems that would prevent effective participation by citizens in the regulatory state. His prediction was accurate as far as it goes; it is often prohibitively costly for citizens to organize and be heard in the halls of Congress or in agency hearing rooms. Stewart did not, however, foresee how politicized (and impaired) the regulatory state would become through the intervention of a neoliberal ideology that extolled “free markets” and attacked regulation at every turn. Anti-regulation zealotry was based upon the idea that all regulations killed jobs and retarding economic growth. Ironically, perhaps, one way to slow down the regulatory state was to encumber it through more regulations thus “ossifying” the regulatory process.²⁹ Additional regulatory reviews and requirements for cost-benefit analyses, as examples, added layers of, and costs to, regulation, while other anti-regulatory tactics consisted of under enforcement and underfunding agencies.

Aside from such politicization of agency action, when the traditional administrative agency operated as intended, it functioned fairly well and was adapted to the time. Briefly, regulatory methodology was a two or three step process. First, a problem was identified and second, a regulatory tool was applied to correct it. The occasional third step would consist of assessing and evaluating the success or failure of the regulation itself. Agencies, thus, were designed to address an identified problem through the rational application of technical expertise by the analysis and application of empirical data. Also, agencies were to be neutral and nonpolitical. It must be emphasized, however, that such a methodology was retrospective. The agency would look backward to identify and understand problems rather than looking forward to anticipate them.

As time passed and as industry influence increased, these expert, technical bureaucrats found themselves in silos that addressed legislatively targeted issues often with little or no attention paid to coordination with other related problems. Moreover, they became increasingly dependent on industry for the information and other resources such as expert experience needed to do their jobs. This narrow, backwards-looking and subject-specific focus is what Professor William Simon called the preoccupation of canonical administrative law.³⁰

The traditional regulatory model was based on faith in technocratic expertise; on reliance on neutrality and objectivity; and on the belief that administrative agencies could carry out the will of the legislature without political interference. Consequently, such an apolitical view of the

²⁹ See e.g. Richard J. Pierce, Jr., *Rule-Making Ossification is Real: A Response to Testing the Ossification Thesis*, 80 GEO. WASH. L. REV. 1493 (2012); Thomas O. McGarity, *Some Thoughts on “Deossifying: the Rulemaking Process*, 1992 DUKE L. REV. 1463.

³⁰ William Simon, *Democracy and Organization: The Further Reformation of American Administrative Law* (November 12, 2012) available at https://www.researchgate.net/publication/256039761_Democracy_and_Organization_The_Further_Reformation_of_American_Administrative_Law.

role of administrative agencies led to a jurisprudence of deference to agency decision-making by the judiciary.

Today, however, continued faith in that model goes wanting as the traditional model has been eroding for decades. More pointedly, the culprit for that erosion is politics. Politics, of course, is in the eye of the beholder. Critics on the left as well as on the right argue that the model no longer holds. Those on the right prefer a more activist judiciary to check what they believe to be abuses of administrative discretion.³¹ Those on the left argue that the judiciary has simply gone too far and that agencies should have the discretion to carry out the will of Congress as expressed in the legislation that guides them without additional requirements imposed by the judiciary such as close cost-benefit scrutiny.³²

For purposes of discussing the current state of energy/environmental policy, however, the point here is a narrow one. The model of the traditional US administrative agency, as well as the regulatory methods that it employs, are deficient. Those deficiencies are compounded by regulatory silos and affective legal and political frameworks within which agencies and their regulated industries operate.

Regulatory Silos

The regulation of energy and the regulation of the environment are contained within two different sets of silos. First, energy and the environment are regulated separately and independently from each other. Second, each discipline contains its own internal set of silos. Within the discipline of environmental regulation, for example, water, air, and species are subject to distinct statutory regimes and are regulated by different bureaus and sometimes different departments within an agency. Similarly, public lands and private lands are treated independently of each other and, depending upon ownership, some lands fall within the jurisdiction of the Department of Interior or the EPA while some tribal issues are handled by the Bureau of Indian Affairs.

Similarly, different energy resources are regulated by different bureaus or departments as well. Oil, natural gas, electricity, coal, nuclear power and hydropower, are also governed by different statutes and regulated by different agencies. For example, although FERC has responsibility for regulating the interstate transmission of electricity, natural gas and oil, each resource is regulated separately from each other.³³ Further complicating the regulation of energy resources, some resources are treated by multiple agencies. Interstate nuclear generated electricity is regulated by FERC; the safety,

³¹ See e.g. Daniel B. Rodriguez & Barry R. Weingast, *The "Reformation of Administrative Law" Revisited*, 31 J. LAW, ECON. & ORG. 782 (2105).

³² See e.g. Heinzerling, *supra* note 11.

³³ See e.g. Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947 (2105).

construction and licensing of nuclear power plants are regulated by the Nuclear Regulatory Commission, and retail sales of nuclear generated electricity are regulated by state public utilities commissions. This fragmentation of regulation occurs throughout the energy sector.

The separate treatment for energy and environmental resources is consistent with the historic development of administrative agencies and with their traditional regulatory methodologies. Like other regulatory problems, energy and environmental regulation occurs retrospectively. Once an energy or an environmental problem is identified, then it can be addressed through problem-specific regulation. Further, separate treatment makes sense (as far as this method goes) and is also consistent with the traditional approach to regulation. After all, each area has its own complexities and each requires specific technocratic fixes. By treating resources in those silos, however, coordination is lacking. Compounding this narrow view are the distinct legal and political frames within which each discipline is perceived and regulated.

*Legal and Political Frames*³⁴

Given the regulatory framework just outlined; the institutional development of energy law and environmental law as independent disciplines; and the regulatory silos in which energy and environmental regulation operate, it is not surprising that each discipline has developed its own legal and political frame.

Each discipline has developed its own perspective of the political economy with its own set of goals and perspectives. These separate viewpoints create different and separate narratives, which have the effect of creating different and separate policy programs as well as different political agendas. However, the separation of energy and the environment is a false binary³⁵ that must be rejected. Energy and the environment are not separate realms of natural physical behavior; they are two sides of the same coin and, therefore, it is better and more accurate to consider the energy/environmental complex rather than to treat them independently of each other. Consequently, the political assessment of the energy/environmental complex, and the laws and policies attendant to that assessment, must be considered as a whole. Regardless, separate legal and political frames have been adopted as demonstrated by their separate languages and vocabularies.

The language of the environment is about conservation, species protection, ecological sensitivity, and precaution. The language of energy is about production, consumption, jobs, and, most importantly, economic growth. Both languages, though, are too narrow; each misses important aspects of the other. The language of the environment is too insensitive to economic growth, technological advances, and general consumer lifestyles. The language of energy is too

³⁴ See Joseph P. Tomain, *A Perspective on Clean Power and the Future of US Energy Politics and Policy*, 39 UTIL. POLICY 5 (2015).

³⁵ See e.g. Purdy, *supra* note 15 at 1189.

insensitive to the commons, too reliant on “free markets,” and too defensive about incumbent fossil fuel and nuclear energy firms while less attentive to new clean energy entrants. This is not to say that these issues are ignored altogether by one language or the other; rather, it is to say, though, that one language often downplays and, at times, obscures, the other as a result of path dependent political frames that have divided energy and the environment into separate spheres.

These two languages simply pay inadequate attention to the reality of the energy fuel cycle. From the environmental side, the energy narrative tends to downplay, if not ignore, the environmental effects that occur from exploration and extraction through production and transportation to consumption and disposal. Simply, the natural resources we use to produce energy, particularly carbon heavy resources, impose identifiable and often serious social and economic costs. From the energy side, the environmental narrative tends to downplay, if not ignore, the costs of doing business such as the sunk costs of past investments, the transition costs of moving from one energy paradigm to another, and the possibility of lost opportunity costs available under current business practices.

Consider further that the two languages do not appear to merge well – a circumstance that must be overcome. The fears and frustrations of environmentalists with free market rhetoric; the anguished application of cost-benefit analyses; the distortion of science;³⁶ and, skepticism that technological advances can be relied upon to solve climate challenges may overstate fears about the future and sound apocalyptic. The fears and frustrations from the energy sector about low or no economic growth; wariness about soft variables such as fairness and environmentalism; and, the loss of the incumbents’ positions in the energy economy may overstate their fears about the future, sound faintly Luddite, and appear unwilling to tackle change or experiment with and adopt new business models.³⁷

Such fears, on both sides, are not irrational because those fears tap into the deepest commitments of both narratives. In brief, the energy narrative is about efficiency and our immediate and near-term economic well-being. The environmental narrative is about the long-term interconnectedness of the human and natural environments. The energy narrative also expresses a deep concern about our political and economic status in the world. The environmental narrative also expresses a deep concern about the future of the planet.³⁸ And, finally, the energy narrative is explicitly instrumental because energy is simply a means to the

³⁶ See e.g. Justin Gillis & John Schwartz, *Deeper Ties to Corporate Case for Doubtful Climate Researcher*, N.Y. TIMES (February 21, 2015); Terrence McCoy, *Fla. Scientist Told to Remove Words “Climate Change” from Study on Climate Change*, WASH. POST (March 10, 2015).

³⁷ See generally TED NORDHAUS & MICHAEL SHELLINGER, *THE END OF ENVIRONMENTALISM: FROM THE DEATH OF ENVIRONMENTALISM TO THE POLITICS OF POSSIBILITY* (2007). The authors, together with their Breakthrough Institute, attempt to merge energy and the environment with an explicitly pro-growth agenda. (“The transition to a clean-energy economy should be modeled not on pollution control efforts, like the one on acid rain, but rather on past investments in infrastructure, such as railroads and highways, as well as on research and development – microchips, medicines, and the Internet, among other areas.” At 15.)

³⁸ See e.g. Sarah Krakoff, *Parenting the Planet* in DENIS G. ARNOLD (ed.), *THE ETHICS OF GLOBAL CLIMATE CHANGE* 145 (2014); Purdy, *supra* note 15 at 1174-80.

end of economic productivity. In turn, the environmental narrative often sounds explicitly intrinsic as environmental protection is discussed as a good in and of itself. Nevertheless, it is incumbent upon us to adopt a new approach to energy and the environment and one that merges the hopes and promises, as well as the concerns and fears, of both narratives into a consistent and convergent³⁹ whole.

Meeting the Regulatory Future

The three deficiencies of traditional regulation just discussed indicate that the current legal and regulatory regime is inadequate to meet the energy/environmental future. In a changing and more populous world, the environmental/energy problems that we confront cannot be adequately addressed by our current administrative structure with its focus on specific areas. Nor can that future be addressed by the narrow political frames just discussed. Instead, and most notably, policymakers must recognize that climate change has a different and more complex configuration than traditional regulatory problems and that it is the paradigmatic example of Richard Lazarus calls a “super wicked problem.”⁴⁰ Climate change presents challenges that are multidisciplinary, transgenerational, transboundary, multijurisdictional, and contain an array of technical and economic uncertainties and complexities that can have catastrophic consequences if left unattended.⁴¹ Traditional administrative agencies and law might have worked well to solve a past problem, but today’s energy/environmental challenges require multilevel and flexible anticipatory problem solving, something that is difficult to achieve within today’s entrenched regulatory structure.

Instead of a simple *ex post* market fix, the new energy/environmental regulatory regime must behave differently. Addressing climate change and clean power will require high degrees of *ex ante* planning and coordination, more sophisticated computer modeling and analyses, and a set of principles and goals that can be continuously monitored, evaluated, and corrected as needed. Agencies and bureaus tasked with implementing the CPP and associated regulations, will need to address cross-cutting energy and environmental problems in coordinated ways rather than separately. Additionally, the new regulatory structure must engage in continuous assessment, improvement, and learning as CPP regulation is implemented. Recall, the CPP will be administered by the states and, therefore, the states can play the Brandesian role of laboratories for regulatory experiments.⁴²

³⁹ See e.g. ANTHONY GIDDENS, *THE POLITICS OF CLIMATE CHANGE* (2009).

⁴⁰ Richard J. Lazarus, *Super Wicked Problems and Climate Change; Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153 (2009).

⁴¹ See e.g. RICHARD A. POSNER, *CATASTROPHE: RISK AND RESPONSE* (2004); CASS R. SUNSTEIN, *WORST-CASE SCENARIOS* (2009); W. Kip Viscusi & Richard Zeckhauser, *Addressing Catastrophic Risk*, in *REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION* 21 (Cary Conglianese ed. 2012).

⁴² *New State Ice Co. v. Liebman*, 285 U.S. 262 (1932) (Brandeis, J. dissenting)

The appropriate regulatory approach will be progressive and will address these super-wicked problems; account for the current level of capture; move beyond New Deal-Great Society regulatory silos; and embrace the role of government as a positive contributor to society. The current model of agencies results in a bureaucratic culture notably influenced by the “tendency of political actors to focus on short-term goals and consequences and . . . their reluctance to threaten the existing business models of powerful incumbent actors.”⁴³ Properly responding to climate change will challenge old institutional designs and institute new ones; adopt reliable metrics; promote experiment and innovation; and will be driven by concern for the long-term improvement of the environment through a transition to a clean power and away from a traditional fossil fuel paradigm. The CPP, then, present an opportunity to reinvent the regulatory state.

Clean Power Plan

The Clean Power Plan, then, has potential for bridging the two separate disciplines of energy and the environment. Given the extensive history of both disciplines, the administrative structures supporting them, and the industry’s that rely upon them, the merger will not be seamless. Nevertheless, we can identify some advantages while also acknowledging forthcoming challenges.

The proposed CPP seeks to reduce carbon emissions by 26% (below 2005 levels) by 2020 and by 32% by 2030. The EPA estimates that the annual total combined climate and health benefits from adopting the CPP range from \$3.5 billion to \$8.1 billion in 2020 and from \$34 billion to \$48 billion in 2030.⁴⁴ These benefits include reduced risks from heat stroke, heat-related deaths, and reduced particulate pollution, as well as the benefits incident to a decrease in the intensity of extreme weather events. EPA also envisions emissions reductions of sulfur dioxide, nitrogen oxides, and fine particular matters. Further, the agency estimates that the health and climate benefits will outweigh the estimated annual cost of meeting the standards, which are projected to run from \$5.1 billion to \$8.4 billion in 2030.⁴⁵

EPA will establish overall goals for each state, and then states will have leeway to craft compliance plans. Each state must first meet an interim carbon reduction goal then must meet EPA’s 2030 target for emission reductions, and continue to do so from that point onward. State goals will be tethered to EPA’s calculation of the “best system of emissions reduction” (BSER).

⁴³ Stuart Minor Benjamin & Arti K. Rai, *Fixing Innovation Policy: A Structural Perspective*, 77 GEO. WASH. L. REV. 1, 13-14 (2008).

⁴⁴ FED. REG. 64679-682.

⁴⁵ FED. REG. 64679.

The BSER will be calculated based upon the mix of the power resources in each state and the application of three “building blocks” to achieve reduction targets. The building blocks are: (1) increasing the efficiency of fossil fuel-fired power plants through heat-rate improvements; (2) using lower emitting energy resources such as natural gas; and (3) utilizing more zero or low-carbon energy sources such as renewable energy or nuclear power. The proposed rule included a fourth building block to encourage the deployment of demand response and energy efficiency programs. After the public comments, EPA deleted this building block although demand response and energy efficiency, as well as retiring coal plants, can be used to satisfy a state’s goals under the plan.

Aligning Energy and the Environment

Two significant consequences follow from linking energy regulation and environmental regulation. First, a clean energy policy can be designed. Second, the energy future is then linked to climate change. It can be argued, easily enough, that a clean energy future is valuable in and of itself. Nevertheless, aligning climate change and clean energy promises a better and more sustainable future.

An energy/environmental future should be based on two ideas. First, the traditional energy narrative has outlived its useful life and is stale. Historically, cheap, but dirty, fossil fuel energy has played a significant role in contributing to economic growth and to the political authority of the US for most of the 20th century. In the 21st century, however, the fundamental economic assumption of traditional energy policy has proven to be seriously flawed precisely because of the unaccounted for social costs of that old fossil fuel policy. Second, the old model of separate and independent energy and environmental regulation is no longer responsive to current needs.

As my forthcoming book, *Clean Power Politics* argues,⁴⁶ there are several benefits to aligning energy and environmental regulation through the CPP including:

- (1) *A New Regulatory Contract*. The standard regulatory contract between the utility and its regulators is structured such that public utility commissions (PUCs) have the power to set utility rates in exchange for providing utilities with a defined service territory. In effect, PUCs control prices and profits while utilities have a monopoly within a defined geographic area. A new regulatory contract will continue the practice of PUC ratemaking; however, the service territory will have to be redefined to allow some competition such as self-generated power through rooftop solar and other localized energy sources.

⁴⁶ JOSEPH P. TOMAIN, *CLEAN POWER POLITICS: THE NECESSITY OF INNOVATION* (forthcoming Cambridge University Press 2016).

- (2) *New Ratemaking Formula*. Historically, the regulatory compact has been interpreted and applied in such a way that a utility's rates were based upon the amount of their electricity sales. Also known as volumetric rates, through this rate formula, a utility was encouraged sell more electricity and, concomitantly, build more plant. In an era in which demand for electricity was growing, the traditional formula worked well. Now, as energy efficiency gains are being made, a volumetric rate formula is counterproductive. Similarly, ratemaking can be designed to encourage energy efficiency as well as promote decentralized power use through net metering or arrangements that fully account for the benefits that decentralized power provides to the local utility. A homeowner who has rooftop solar or owns an electric vehicle, as examples, contributes value to the local utility by helping stabilize load. That value must be taken into consideration through ratemaking.
- (3) *Dispatch*. PUCs are tasked with serving two masters. On the one hand, they view their job as supporting local utilities so that affordable universal service is available within the utility's service territory. On the other hand, regulators do not want to impose excessive costs on consumers. Historically, one way to serve both masters was to engage in a dispatch practice in which the least cost energy resources were used to generate electricity. In the not-too-distant past, the least cost energy resource was coal, the dirtiest of fuels. More recently, natural gas is replacing coal, still natural gas is a fossil fuel and one that is less benign than its proponents assert.⁴⁷ This dispatch practice, also known as economic dispatch, must be replaced with environmental dispatch, which, instead of using the least cost natural resources first, uses the lowest carbon resources first. In the short-term, environmental dispatch may likely raise rates. However, as energy efficiency measures are more widely adopted, rates should lower and stabilize while advancing a clean power agenda.
- (4) *Clean Power R&D*. Energy R&D, most certainly at the federal level, has generally lagged behind investments in other sectors such as defense, telecommunications, and pharmaceuticals. The Obama administration has ramped up clean power R&D through several efforts in the DOE particularly through an entity known as the advanced research projects agency (ARPA-E).⁴⁸ ARPA-E programs engage in energy research through national laboratories, public-private consortia, and other arrangements. These initiatives encompass a wide range of activities from basic science research to technological implementation and market creation. DOE has funded an array of projects from fusion research to energy storage and from wind and

⁴⁷ See e.g. Joseph P. Tomain, *Shale Gas and Clean Energy Policy*, 63 CASE WESTERN L. REV. 1187 (2013).

⁴⁸ See e.g. ARPA-E homepage at <http://arpa-e.energy.gov/?q=arpa-e-site-page/arpa-e-history>.

solar power to advanced nuclear plant design. At the state level, clean power demonstration projects through such as electric vehicle recharging or household clean power retrofits, can be funded through ratemaking as a method for financing R&D.

- (5) *Decentralization.* Large central power stations have been relied upon for over a century to build out infrastructure, provide adequate amounts of reasonably priced electricity, and serve all customers. Because of the traditional regulatory compact and its implementing ratemaking formula, large central power stations may well have reached their most efficient point. Other than retrofitting existing plants, new plants may not necessarily realize continuing economies of scale as utilities have for most of the last century. Instead, decentralized power such as small-scale solar and wind, micro-grids, energy storage, and other localized power, significantly change the large-scale paradigm and democratize energy more than we have seen since the end of the 19th century.
- (6) *Energy Competition.* Consistent with the concept of decentralization, as we move towards a clean power economy and away from large-scale generation and distribution in the electricity sector, there will be an array of new entrants into energy markets. New equipment such as solar panels and smart meters; new businesses such as energy audits and installations; and new service providers such as independent power producers and independent transmission systems add new actors, new services, and new products to emerging energy markets thus making the energy sector more competitive. The development of new energy markets also entails a switch away from capital investment to investment in labor. Decentralized energy services will require more labor for installation, monitoring, and customer service thus expanding the job market and contributing to economic growth.
- (7) *New Business Models.* Most of electricity generated and distributed in the United States is done through private IOUs. While a clean power transition promises greater decentralization and more competition, those IOUs will, at a minimum, play a transitional role. In other words, they will continue to be central and important factors in the electricity sector. To maintain their centrality, the smart IOU must develop new business models to sustain its financial integrity. The smart IOU, for example, will understand that it is in the energy business rather than just the electricity business. In other words, instead of basing their revenue on increasing electricity sales, they must understand that they have other products and services to offer their customers. The smart IOU will broaden its sources of electricity to include clean power, will also “sell” energy efficiency, and will have both regulated and unregulated business units.

By way of example, an IOU can invest in large-scale solar or wind projects and be regulated under the old regime and it can invest in decentralized power sales and compete with new entrants in an unregulated environment.

(8) *Common Metric*. The CPP starts to develop a common metric to be used by energy providers as well as by environmental regulators. All aspects of the energy/environmental complex must understand the costs of CPP initiatives. For every dollar invested in a CPP project, for example, regulators must understand how much energy is generated and at what environmental cost. It is not unusual for critics of the CPP to argue that the CPP will raise the cost of electricity.⁴⁹ In other words, this calculation weighs the costs of CPP energy against the costs of traditional electricity. This is a false comparison because the whole point of the CPP is to balance the cost of energy projects against the environmental and health costs generated by them. The apples-to-apples comparison is between energy costs and environmental benefits not between energy costs before and after the initiative. This comparison between energy costs and environmental benefits is a move towards developing a common metric that links and deepens our understanding of the relationship between energy and the environment.

(9) *Local Governance*. Decentralized, small-scale, labor-intensive clean energy industries and activities should offer a locality a competitive advantage by stimulating jobs,⁵⁰ innovations⁵¹ and investments.⁵² Further, local governments can serve as “policy laboratories” that engage in regulatory experimentation, which should promote efficiency gains through competition; develop best practices for the local use and distribution of energy; engage in public education through the accumulation and dissemination of local knowledge; enable localities to scale energy activities to the

⁴⁹ Jason S. Johnston, *The False Federalism of EPA’s Clean Power Plan*, Virginia Law and Economics Research Paper No. 16 available at http://papers.ssrn.com/sol3/papers.cfm?abstract_id=2604308## (May 2015); Jim Manzi & Peter Wehner, *Conservatives and Climate Change*, NATIONAL AFFAIRS 115 (Summer 2015).

⁵⁰ See e.g. E2 Environmental Entrepreneurs, *Clean Energy Works for US: 2013 Year-in-Review and Q4 Report* (February 2014); American Council for and Energy-Efficient Economy, *How Does Energy Efficiency Create Jobs?*(undated); Rachel Gold, *State by State, Appliance Standards Save Money, Create Jobs, and Protect the Environment* (May 25, 2011) Casey Bell, *Proving Energy Efficiency Creates Jobs: Seeking a New Standard Model* (January 22, 2014); ACORE, CalCEF & Climate Policy Initiative, *Strategies to Scale-Up U.S. Renewable Energy Investment* (2013); Environmental and Energy Study Institute, *Fact Sheet: Jobs in Renewable Energy and Energy Efficiency* (2014); MCKINSEY GLOBAL ENERGY AND MATERIALS, UNLOCKING ENERGY EFFICIENCY IN THE U.S. ECONOMY (July 2009).

⁵¹ See e.g. Sara Hastings-Simon, Dickon Pinner & Martin Stuchtey, *Myths and Realities of Clean Technologies* (April 2014).

⁵² REN21, RENEWABLES 2014 GLOBAL STATUS REPORT 72 (2014).

tasks most suitable to them; and, search for cooperative solutions with and among other layers of government.⁵³

Given the constraints already expressed about the separate development and regulation of these two disciplines, an alignment between them, let alone a full merger will confront multiple challenges. Among those challenges is the problem of coordination between and within agencies.⁵⁴ Recall that different energy resources and different environmental resources are treated by different departments under different regulatory and statutory regimes. Consequently, government officials and policymakers responsible for those various resources have a familiarity with the regulation and an alignment between them will require new management, expertise, planning, and cooperation.

Additionally, both energy and environmental law have always been regulated at the federal and state levels thus presenting a variety of federalism problems. While the concept of cooperative federalism, in which standards are set by the federal government and administered by the states, is attractive, it is not problem free.⁵⁵

Energy, of course, is a major and significant input into the economy. At roughly 8% of GDP, investment in energy production and transportation and other infrastructure represents significant sunk costs. Incumbents, then, have not only invested heavily in the sector, they have done so in reliance on a regulatory structure with which they become familiar. Regulators, no less than regulatees, have also become familiar with the laws and regulations governing particular resources and are also familiar with industry actors. In short, incumbents are committed to past ways of doing business in order to protect the sunk costs and they are protected to a significant degree by the path dependency upon which they rely in their businesses and upon which regulators carry out their duties.

While it would be fanciful to argue that the CPP can easily and smoothly overcome these barriers is not fanciful to argue that it starts the process of alignment.

Conclusion

The US can continue discussing a nuclear renaissance, its increases in domestic oil and natural gas production, and/or the potential for clean coal, or it can abandon this old dialogue and move to develop a new set of energy and environmental commitments; a set of commitments that

⁵³ Garrick B. Pursley & Hannah J. Wiseman, *Local Energy*, 60 EMORY L. J. 877, 881-82; 933-34 (2011).

⁵⁴ See e.g. Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012); Jennifer Nou, *Intra-agency Coordination*, 129 HARV. L. REV. 421 (2015); Bijal Shah, *Uncovering Coordinated Interagency Adjudication*, 128 HARV. L. REV. 805 (2015).

⁵⁵ See e.g. Jim Rossi, *The Brave New Path of Energy Federalism*, 95 TEX. L. REV. ____ (2106); Hari M. Osofosky & Hannah J. Wiseman, *Dynamic Energy Federalism*, 72 MD. L. REV. 773 (2013); Hannah J. Wiseman, *Moving Past Dual Federalism to Advance the Electric Grid*, 100 IOWA L. REV. BULL. 97 (2015)

advance the interests of citizen/consumers in the emerging clean energy future. The choice seems obvious as the energy transition moves away from a traditional fossil fuel economy to one in which environmental concerns are treated together with our energy demands. Incumbent firms, existing institutions and regulations, and the old energy narrative will continue to influence public discussion. Nevertheless, a new narrative is developing that is attentive to emerging energy technologies, cognizant of environmental consequences of the fuel cycle, and is committed to developing a wider range of energy resources, markets, and participants on both the supply and demand sides of the meter. The CPP, then, promises to be major chapter in that new narrative.