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Billionaires, Birds, and Environmental Brawls: Reconceptualizing Energy Easements

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Billionaires, Birds, and Environmental Brawls: Reconceptualizing Energy Easements

Nadia B. Ahmad*

Abstract

In the substantial power outages associated with Hurricane Sandy and the 2013 Oklahoma tornadoes and Colorado floods, which left millions without power, the United States witnessed the insufficiency of its existing energy infrastructure. The lack of access to reliable energy widens the cleavage between the rich and poor, particularly in times of disaster and crisis. Policymakers and government regulators involved with long distance energy transmission projects have not adequately instituted laws and policies for existing and future energy access. This Article holds that current regulations, practices, and norms for long distance energy transmission may be doomed because of complications with right-of-way and transmission line easements unless the energy easement itself is reconceptualized. I explore how improving laws for transmission line and right-of-way easements can lead to greater eco-efficiency and access to energy. I also look at government and corporate best practices that can be utilized to facilitate energy for the greater good. This Article surveys competing community

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attitudes and national and regional laws and looks at ways to manage community expectations for the creation of sustainable, reliable and universal energy access. I examine sustainable energy regulations, policies, and community expectations for projects such as solar transmission lines in Colorado, Wyoming's 1,000-turbine Chokecherry and Sierra Madre Wind Energy Project, and energy projects in Tennessee, Texas, and Saudi Arabia.

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I. Introduction

When philanthropist billionaire Louis Bacon bought the Blanca and Trinchera ranches in Colorado's San Luis Valley from the Forbes family for \$175 million in 2007, he was seeking a quiet mountain getaway.¹ Bacon was attracted to the property's unspoiled landscape and spectacular views.² Shortly thereafter, Tri-State Generation and Transmission Association and Xcel Energy received regulatory approval to build a 140-mile power line connecting Alamosa to Pueblo that would run across Bacon's property.³ At that point, Bacon drew a line in the sand and mounted a legal battle and public relations campaign to halt construction of the transmission line.⁴ Bacon was no simple rival for the intimidating energy giants.⁵ He uncovered a corporate scandal that the transmission line, which was being touted as a supplier of green energy, would, in fact, likely not carry "green" energy, or at least, not in the quantities claimed.⁶ Pouring nearly \$10 million of his own funds to fight the transmission line, Bacon emerged victorious both in the court of law and public opinion.⁷

1. See Jason Blevins, *Billionaire Louis Bacon Battles to Protect his Ranch from Big Utilities' Solar-Power Plans*, DENVER POST (Nov. 28, 2011), http://www.denverpost.com/ci_16721010 (reporting that, at the time, the \$175 million deal was the highest price ever paid for a single-family home in U.S. history) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

2. See *id.* (stating that the land was sold to Bacon largely on his promise to continue the ranch's environmental legacy).

3. See *id.* (displaying a map of Bacon's property and the recently approved power line).

4. See *id.* (reporting on Bacon's efforts to protect his ranch from utility companies solar-power plans).

5. See *id.* (expressing that Bacon is an "undeniable force" behind the conservationists).

6. See Monte Burke, *Hedge Fund Giant Louis Bacon's Bold Mission To Save The American West*, FORBES (Oct. 8, 2012), <http://www.forbes.com/sites/monteburke/2012/09/18/hedge-fund-giant-louis-bacons-bold-mission-to-save-the-american-west/> (reporting that the utilities stated that the transmission lines would be a supplier of green energy and that the companies would earn a double digit rate of return with zero percent interest) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

7. See *id.* (noting that, after Bacon's efforts, construction of the new line was unlikely as it would require an "unprecedented 'eminent domain' ruling").

Yet the outcome in this case signals an unsettling trend, not only for the renewable energy sector, but the energy industry overall.⁸ As a landowner, Bacon was asserting his private property rights and promoting the case for land conservation.⁹ He later obtained a conservation easement for the land and a federal tax credit incentive for nearly the same amount of money he had spent fighting the line.¹⁰ The establishment of the conservation easement makes any future development of transmission lines on the property more difficult.¹¹

This Article explores the complications associated with energy easements, particularly long distance transmission lines and pipelines. Energy easements are necessary to transport electricity and natural resources over long distances, especially for renewable energy sources that have lower greenhouse gas emissions (“GHGs”) and may be unavailable in high-population density areas.¹² I seek to reexamine the long-term and short-term environmental consequences of energy easements and evaluate energy as a right. To do so, this Article will consider historico-legal property law regimes and aspects of energy justice to balance environmental rights and commercial interests. The existing framework for conceptualizing energy easements is inadequate because current norms underestimate energy justice as a development goal. While other scholars have analyzed legal siting and regulatory concerns, this Article takes a step back to evaluate the energy easement itself.

8. *See id.* (explaining that the line was a joint venture between two energy companies that actually had the backing of an environmental group in Boulder, Colorado).

9. *See id.* (detailing Louis Bacon’s publicity and legal battle with the utility companies); *see also supra* note 2 and accompanying text.

10. *See id.* (reporting that Bacon would not disclose the amount of the potential deduction on the property but that it was nearly the amount spent on fighting the proposed line).

11. *See id.* (explaining that the U.S. Fish and Wildlife Service would require an eminent domain ruling for future construction of a line).

12. *See Understanding Easements and Rights-of-Way*, Xcel Energy (2007), *available at* <http://www.xcelenergy.com/staticfiles/xcel/Corporate/Corporate%20PDFs/UnderstandingEasementsandRight-of-Way.pdf> (explaining easements, rights-of-way and their effect on property rights) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

The United States is the second largest consumer of energy in the world now, trailing China, and it must be concerned not only with reducing its carbon footprint, but also carrying the burden of its energy consumption.¹³ Should an industrialized country rely on less-developed or underdeveloped nations for its energy resources, especially when those countries have poorly-constructed or rarely enforced environmental regulations governing energy development? The BP oil spill of 2010, while economically disastrous and ecologically devastating, was not a world-ending cataclysmic event.¹⁴ If anything, the BP oil spill was a wake-up call. New technologies have made it possible to extract and develop energy resources in previously unimagined places, and these resources will have to be transported to consumers.¹⁵ The public interest is to balance energy development with wildlife conservation and environmental preservation in recognition of federal, state, and local laws.¹⁶ However, these environmental rules and regulations should be drafted with an eye on the environmental, health, *and* economic costs.

13. See U.S. ENERGY INFO. ADMIN., *China Energy Overview*, EIA 1 (Feb. 4, 2014), available at <http://www.eia.gov/countries/analysisbriefs/China/china.pdf> (explaining that China became the largest global energy consumer in 2010) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

14. See Campbell Robertson, *BP May be Fined Up to \$18 Billion for Spill in Gulf*, N.Y. TIMES, Sept. 4, 2014, at A1, available at http://www.nytimes.com/2014/09/05/business/bp-negligent-in-2010-oil-spill-us-judge-rules.html?_r=0 (chronicling the BP oil spill and its disastrous effects on the Gulf region) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

15. See Eduardo Porter, *A Carbon Tax Could Bolster Green Energy*, N.Y. TIMES, Nov. 18, 2014, at B1, available at <http://www.nytimes.com/2014/11/19/business/economy/a-carbon-tax-could-bolster-wobbly-progress-in-renewable-energy.html?module=Search&mabReward=relbias%3Ar%2C%7B%22%22%3A%22RI%3A12%22%7D> (stating that new energy technologies are becoming more competitive) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

16. See *Promoting Safe Development of Renewable Energy on Public Lands*, NAT'L WILDLIFE FOUND, <http://www.nwf.org/What-We-Do/Energy-and-Climate/Renewable-Energy/On-Public-Lands.aspx> (last visited Dec. 18, 2014) (advocating the Public Lands and Renewable Energy Development Act as a way to promote renewable energy while protecting wildlife habitats) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

Part I of this Article outlines this history of energy easements and looks at the current state of the law. This part also discusses property law theories to reframe legal conceptualizations of the energy easement through a discussion of the anticommons and property as propriety. Part II turns toward state and federal common law handling energy easements. Part III considers how environmental laws and regulations with respect to energy development should be reexamined in light of recent climate change and sustainable energy policy initiatives. Parts IV and V analyze case studies and provide a platform for the normative implications of a reconceptualized energy easement.

II. Historico-Legal Discussion of Energy Easements

A. History of Energy Easements

Takings actions by governments, utility companies and other electricity providers have historically been fairly non-controversial when building interstate transmission lines.¹⁷ From 1920 to 1930 when the right-of-ways (ROWs) for many of the current transcontinental transmission lines were purchased, there was a period of low land values and depressed grain markets due to farmers' debts and heavy mortgages.¹⁸ These farmers saw an opportunity to sell ROWs for cash and did not consider the depreciation or severance damage as a result of the transmission easements.¹⁹ In the years since, notably in the 1950s, land values soared and more intense use was made of the land, and the landowner no longer wanted the power line.²⁰

17. See Alexandra Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1081 (2013) (explaining that takings for utilities are directly put to public use rather than given to a private company that will engage in an activity that benefits the public).

18. See Lita Furby et al., *Public Perceptions of Electric Power Transmission Lines*, 8 J. ENVTL. PSYCHOLOGY 19, 21 (1988) available at <http://sds.hss.cmu.edu/risk/articles/PublicPercElectricPowerTrans.pdf> (quoting Claude Crawford, *Appraising damages to land from power line easements*, *Appraisal J.* 37 (Jul. 1955) (analyzing the trends of land values) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT)).

19. See *id.* (describing farmers' concerns with easements in the 1920s and 1930s).

20. See *id.* at 22 (explaining the oppositions to power lines).

During the 1950s, public opposition to power lines steadily grew with subsequent attitudinal changes paralleling economic progress.²¹ Intense conflicts ensued in Ohio, Virginia, and California during the 1960s.²² The 1970s saw strong opposition in Minnesota, New York, Montana, Washington, South Dakota, Ontario, Arizona, California, and Texas.²³ Opposition to transmission line siting and construction caused increased costs to utilities in the form of delays in regulatory approval, litigation, and in some cases, vandalism.²⁴

Residential landowners presented a similar historical pattern to that of farmers.²⁵ Where there was a lack of electricity, suburban and rural residents were likely to obtain the convenience of electrical service; however, once electricity became widespread, the positive symbolism of transmission lines waned.²⁶ “The siting of transmission lines provides a classic example of a potential conflict between private and public uses of property, where that property may be land, physical structures or an amenity (such as a landscape).”²⁷ Typically, the utility operating the line obtains easement rights from individual

21. See Furby, *supra* note 18, at 22 (noting that once power was obtained in most areas the positive symbolism of transmission lines declined).

22. See LOUISE YOUNG, *POWER OVER PEOPLE* (1973); Richard Mason, *The Location of Powerlines and Social Conflict*, paper presented at EPRI Planning Session RP 2069, Palo Alto, CA (1982); R. N. Fricke, *Problems Encountered in Laying Out and Securing Approval of Routes for Extra High Voltage Transmission Lines*, Proceedings of the American Right of Way Association, Inglewood, CA, 106–09 (1982).

23. See generally BARRY CASPER AND PAUL WELLSTONE, *POWERLINE: THE FIRST BATTLE OF AMERICA’S ENERGY WAR* (1981); Joel Ray, *The Hazards of High Wires*, *THE NATION* 177–80, (February 18, 1978); Jeannette C. Boyer et al., *The Socio-Economic Impacts of Electric Transmission Corridors: A Comparative Analysis*, University of Waterloo, Royal Commission on Electric Power Planning (1978).

24. See Furby, *supra* note 18, at 20 (stating the enormous costs to utilities resulting from the opposition to transmission lines).

25. See *id.* at 22 (comparing the attitudes of farmers and residential landowners).

26. See *id.* (explaining the evolution of the feelings towards transmission lines after they had been in place for an extended period of time).

27. Lita Furby et al., *Electric Power Transmission Lines, Property Values, and Compensation*, 27 *J. ENVTL. MGMT.* 69, 70 (1988) available at <http://sds.hss.cmu.edu/risk/articles/electricpowertranslines.pdf> (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

landowners or from the appropriate land management agency.²⁸ A lump sum payment is made, enabling the seller to continue using a specified portion of the property while granting the utility the right to construct, maintain, or operate a transmission line and/or associated access roads.²⁹ Representatives of the utility can acquire property through negotiation with the owner, or if that fails, through compulsory acquisition in the form of the power of eminent domain.³⁰ “The economic argument for this power is that individuals in the path of the railroad, highway, or transmission line would have undue power and the ability to demand an exorbitant compensation.”³¹ Establishing the proper amount of compensation is a judicial responsibility, based on evidence submitted by the property owner and the testimony of the agency acquiring the easements rights.³²

An electric transmission right-of-way (ROW) is a strip of land that an electric utility uses to construct, maintain, or repair a large power line. The easement for the ROW allows the utility to keep the line ROW clear of vegetation, buildings, and other structures that could interfere with line operation.³³

If needed, the utility also obtains easements for access roads to get to the power line ROW.³⁴ A utility obtains a ROW for an electric transmission line through the purchase of an

28. *See id.* at 70–71 (explaining how utility companies obtain easements).

29. *See id.* (discussing typical payment method that allows land owners to continue to use their property).

30. *See id.* (examining the different ways utility companies may acquire land from property owners).

31. *Id.* (citing Richard Posner, *Economic Analysis of Law* (1977)).

32. *See Furby, supra* note 27, at 76–77 (explaining the process for valuating a parcel subject to an eminent domain taking).

33. Right-of-Way and Easements for Electric Facility Construction, Public Service Commission of Wisconsin 1, *available at* <http://psc.wi.gov/thelibrary/publications/electric/electric02.pdf> (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

34. *See id.* at 2 (explaining why utility companies obtain easements over roads).

easement or fee title ownership.³⁵ An easement contract between the utility and the landowner legally restricts land use that allows the utility to build and protect the power line, but allows the landowner to retain general ownership and control of the land.³⁶ The contract specifies restrictions on use of the land and specifies the rights of the utility.³⁷ The contract is binding upon the utility, the landowner, and any future owners of the land until the contract is dissolved.³⁸ The specifics of individual easements are tied to the larger scope of the energy transmission project.³⁹

The construction build-out of transmission projects is predicated on political will to develop centralized renewable energy generation.⁴⁰ Centralized energy generation refers to the huge wind and solar power plants, which—unlike distributed energy devices such as rooftop solar panels—require transmission links to populated areas.⁴¹ “[T]he continued deployment of centralized renewable energy resources, such as utility-scale wind and solar power plants, is currently dependent on the development of, and integration with, a more robust U.S. electricity transmission infrastructure.”⁴² The United States’ energy strategy remains focused on centralized generation, and it is at this juncture that both national and international energy policy goals of combating global climate change are bound to the continued development of the U.S. electricity transmission

35. See *id.* (outlining how the ownership structure works for an easement).

36. See *id.* (defining an easement contract).

37. See *id.* (explaining the scope of an easement contract).

38. See *id.* (explaining the impact of the contract on the parties).

39. See *id.* at 3–4 (describing the impact of the greater transmission project on an individual easement).

40. See Ryan Thomas Trahan, *Electricity Transmission in the U.S. – Legal Issues and Trends*, CTR for Global Energy, Int’l Arbitration, and Env’t Law, University of Texas at Austin School of Law, (Spring 2010), at ii. available at http://www.utexas.edu/law/conferences/governable/wp/wp-content/uploads/centers/energy/Transmission-White-Paper.FINAL_3.pdf

(explaining that the increase in transmission projects is dependent on the political push for large scale renewable energy) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

41. See *id.* (defining centralized energy generation).

42. *Id.* at ii–iii.

network.⁴³ The goal of mitigating human-induced climate change depends on both the development of renewable energy sources along with increased energy efficiency.⁴⁴ The next subsection will turn toward how property has served as the foundation for social order and how this conceptual framework can be reapplied to energy easements.

B. Property as a Foundation for Social Order

Property is the material foundation for creating and maintaining the proper social order, the private basis for the public good.⁴⁵ This view of property can be traced back to Aristotle;⁴⁶ who viewed the individual human as an inherently social being, dependent on others not only to thrive, but also to survive.⁴⁷ This dependency “means that individuals owe each other obligations, not by virtue of consent alone but as an inherent incident of the human condition.”⁴⁸ “This view of human nature provides the basis for the political-legal principle in proprietary thought that when individuals fail to meet their pre-contractual social obligations, the state may legitimately compel them to act for the good of the entire community.”⁴⁹

Since the Middle Ages, private enterprise has been rooted in the institution of private property, which has assumed an owner of the instruments of production with complete property rights over those instruments.⁵⁰ “[T]he organization under the

43. See *id.* at iii (stating that the United States will be bound to its electricity transmission network).

44. See *id.* at ii n.11 (arguing that both approaches are necessary to address the looming problem of climate change and the goal of energy independence).

45. See GREGORY ALEXANDER, *COMMODITY & PROPRIETY: COMPETING VISIONS OF PROPERTY IN AMERICAN LEGAL THOUGHT 1776–1990*, at 4 (2008) (explaining that property was central to the plan of social stability by anchoring the citizen to his rightful place in the proper social hierarchy).

46. See *id.* at 2 (tracing the view of property as maintaining social order back to Aristotle).

47. See *id.* (discussing the relationship of beings in a society).

48. *Id.*

49. *Id.*

50. See ADOLFE A. BERLE & GARDINER C. MEANS, *THE MODERN CORPORATION & PRIVATE PROPERTY* 8 (1932) (explaining that under the feudal system, rested upon an elaborate system of binding customs, economic

system of private enterprise has rested upon the self-interest of the property owner—a self-interest held in check only by competition and the conditions of supply and demand.”⁵¹ Such self-interest has long been regarded as the best guarantee of economic efficiency and has been assumed that, if the individual is protected in the right both to use his own property as he sees fit and to receive the full fruits of its use, his desire for personal gain, for profits, can be relied upon as an effective incentive to his efficient use of any industrial property he may possess.⁵²

Along the same lines, John Locke argued that people have fundamental rights, including the right to life, liberty, and property, which have a foundation independent of the laws of any particular society.⁵³ Locke claimed that men are naturally free and equal as part of the justification for understanding legitimate political government as the result of a social contract where people in the state of nature conditionally transfer some of their rights to the government in order to better ensure the stable, comfortable enjoyment of their lives, liberty, and property.⁵⁴ This view of property held true until the *Lochner* era.⁵⁵ A shift in the

organization grew out of mutual obligations and privileges derived by various individuals from their relation to property which no one of them owned).

51. *Id.*

52. *See id.* (analyzing the economic efficiency of private property).

53. *See* JOHN LOCKE, THE TWO TREATISES OF CIVIL GOVERNMENT BOOK II, § 87 (Hollis ed., 1764) (declaring that man, by nature, has a power to protect his life, liberty and estate).

54. *See id.* at § 34 (explaining the result of the social contract).

God gave the world to men in common; but since he gave it them for their benefit, and the greatest conveniences of life they were capable to draw from it, it cannot be supposed he meant it should always remain common and uncultivated. He gave it to the use of the industrious and rational, (and *labour* was to be *his title* to it;) not to the fancy or covetousness of the quarrelsome and contentious. He that had as good left for his improvement, as was already taken up, needed not complain, ought not to meddle with what was already improved by another's labour: if he did, it is plain he desired the benefit of another's pains, which he had no right to, and not the ground which God had given him in common with others to labour on, and whereof there was as good left, as that already possessed, and more than he knew what to do with, or his industry could reach to. *Id.*

55. *See* Stephen A. Siegel, *Understanding the Lochner Era: Lessons from the Controversy over Railroad and Utility Rate Regulation*, 70 Va. L. Rev. 187, 260 (1984) (stating that the *Lochner* era decided the constitutional notion of property included its fair market value).

courts during the *Lochner* era produced controversy and change within American constitutional law, but also with respect to the view of property.⁵⁶ “The controversies of the *Lochner* era focused on the place of private property in the Constitution’s hierarchy of values.”⁵⁷ In the late 1800’s, property firmly maintained its century-old position as the central value of American constitutional policy.⁵⁸ By the 1940’s, however, civil rights such as freedom of speech had dislodged property from its former preeminence.⁵⁹

“[T]here is not a single income-yielding property right, inside or outside the utility field, which can be enjoyed on equal terms by *everyone*.”⁶⁰ Robert Hale argues the right to acquire property is not an enforceable right:

One cannot get a decree of conveyance against anyone else on the mere ground that the plaintiff has a “right to acquire property.” Nor is [the “right to acquire property”] a permissive right, a “privilege” . . . ; one who goes about acquiring property without regard to anyone else will soon find that he had a duty not to do so. True, one may acquire property by consent of a previous owner.

56. See *Lochner v. New York*, 198 U.S. 45, 74 (1905) (holding that maximum employment hours legislation for bakeries is a violation of the due process clause of the 14th Amendment).

57. Siegel, *supra* note 55, at 187.

58. See generally EDWARD CORWIN, *LIBERTY AGAINST GOVERNMENT* 116–68 (1948) (outlining liberty under the Fourteenth Amendment); Arnold Paul, *Conservative Crisis and the Rule of Law: Attitudes of Bar and Bench, 1887-1895*, at 233–37 (1976) (explaining conservative thought in the judiciary as neo-Federalism, fearful of restless majorities upsetting social order and property rights); Benjamin Twiss, *Lawyers and the Constitution, How Laissez Faire Came to the Supreme Court* 49 (1942) (“The capacity to acquire and hold property is also recognized by the Constitution as an existing right in the possession and enjoyment of citizenship”).

59. See *United States v. Carolene Prods. Co.*, 304 U.S. 144, 152 n.4 (1938) (“There may be narrower scope for operation of the presumption of constitutionality when legislation appears on its face to be within a specific prohibition of the Constitution, such as those of the first ten Amendments, which are deemed equally specific when held to be embraced within the Fourteenth.”).

60. Robert L. Hale, *Rate Making and the Revision of the Property Concept*, 22 *Colum. L. R.* 209, 212 (1922).

The government generally puts no restriction on this sort of acquisition—no restriction other than the very important veto power of the existing owner. It restricts or not, at his pleasure. Again, it may be asserted that anyone may acquire title to property by producing it. But here again, it is not lawful for most persons to handle the apparatus and materials essential for the production of any given kind of property, without first getting consent; and that consent is frequently attainable only on condition of abandoning all claim to title in the product.⁶¹

Achieving title to property is a complex matter; however, the issue to be noted is that property is not an entirely enforceable right.⁶² Changes in common law and societal norms impact the conceptualization of property.⁶³

Morton Horowitz considers the societal change of common law, which was intended to provide justice for all, but transformed to further economic growth and development after 1790.⁶⁴ The courts spurred economic competition instead of circumscribing it so that a new instrumental law flourished as the legal profession, and the mercantile elite, forged a mutually beneficial alliance to gain wealth and power.⁶⁵ Horowitz argues that the doctrine of *laissez-faire*, long considered the cloak for competition, was seen as a shield for the newly rich.⁶⁶ By the 1840s the overarching reach of the doctrine prevented further distribution of wealth and protected entrenched classes by

61. *Id.*

62. *See id.* at 212 (questioning the equality of the right to property in several contexts such as acquisition, value, and governmental benefits for some purchasers).

63. *See* Jane Baron, *Rescuing the Bundle-of-Rights Metaphor in Property Law*, 82 U. Cin. L. Rev. 57, 63 (2013) (overviewing changes in conceptualization of property over time).

64. *See* MORTON J. HOROWITZ, *THE TRANSFORMATION OF AMERICAN LAW, 1780–1860*, 109–11 (1977) (analyzing the political decision to promote economic growth through the tax system after 1790).

65. *See id.* at 111–14 (summarizing several cases that shaped the economic competition for the next 50 years).

66. *See id.* at 107–08 (discussing the tendency of *laissez-faire* “to favor the active and powerful elements in American society”).

disallowing the courts much power to intervene in economic life.⁶⁷ So the question remains: Do we protect land because it provides economic benefit, or does it provide economic benefit because we protect it?⁶⁸ The next subsection looks at the energy easement as anticommons to frame later discussion on the implications of this changing legal landscape with respect to energy easements.

C. *The Energy Easement as an Anticommons*

“The property literature has traditionally recognized two types of property: private property and commons.”⁶⁹ The commons are land or resources belonging to or affecting the whole of a community.⁷⁰ The commons encompass both private property and public property.⁷¹ A commons is “a scheme of universally distributed, all-encompassing privilege[,] . . . a type of regime . . . that is opposite to [private property]”⁷² Initially scholars agreed with the premise of Garrett Hardin’s influential essay, *The Tragedy of the Commons*, that the “users of a commons are caught in an inevitable process that leads to the destruction of the very resource on which they depend.”⁷³ Elinor Ostrom and others called for a reassessment of the general theory that grew out of Hardin’s original paper to advance the understanding and

67. See *id.* at 127–39 (summarizing the case law and legislative history that led to the restriction of the court’s ability to intervene in economic activities).

68. See Richard H. Stern, *Scope-of-Protection Problems With Patents and Copyrights on Methods of Doing Business*, 10 *FORDHAM INTELL. PROP. MEDIA & ENT. L.J.* 105, 128 n. 100 (1999) (referring to Professor Myres MacDougal’s famous question, “Do we protect it because it’s a property right, or is it a property right because we protect it?”).

69. Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 *HARV. ENVTL. L. REV.* 477, 494 (2011).

70. See Linda Butler, *The Commons Concept: An Historical Concept with Modern Relevance*, 23 *WM. & MARY L. REV.* 835, 840–41 (1982) (defining the commons in early English law).

71. See *id.* (discussing the historical inclusion of both private and public property in the English commons).

72. Frank I. Michelman, *Ethics, Economics and the Law of Property*, in 24 *Nomos* 9 (J. Roland Pennock & John W. Chapman, eds., 1982).

73. Elinor Ostrom et al., *Revisiting the Commons: Local Lessons, Global Challenges*, 284 *SCIENCE* 278, 278 (1999).

management of commons problems made since 1968.⁷⁴ Ostrom argued “both government ownership and privatization are themselves subject to failure in some instances.”⁷⁵ The 2013 federal government shutdown due to the standoff on the debt crisis illustrates this point.⁷⁶

Carol Rose takes a step ahead and looks at the reverse of the “tragedy of the commons” as a “comedy of the commons.”⁷⁷ Rose proposes that the real danger is that individuals may “underinvest” in activities that promote the commons, particularly at the outset.⁷⁸ The tendency to underinvest in commons property is why an approach to energy easements as only commons property will not be suitable.⁷⁹

Classical theorists view “property” as a thing, and “property theory” as the relationship between a person and a thing. Wesley Hohfeld suggests property “consists of a complex aggregate of rights (or claims), privileges, powers, and immunities.”⁸⁰ Max Heller says “at this level of generality, the bundle-of-rights metaphor can describe any type of property relationship, including private, commons, and anticommons

74. See *id.* (“An important lesson from the empirical studies of sustainable resources is that more solutions exist than Hardin proposed.”).

75. *Id.*

76. Peter Grier, *Government Shutdown is On. How Long Will it Last?*, CHRISTIAN SCIENCE MONITOR (Oct. 1, 2013), <http://www.csmonitor.com/USA/DC-Decoder/Decoder-Wire/2013/1001/Government-shutdown-is-on.-How-long-will-it-last> (highlighting the 2013 shut down of the United States Government) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

77. See Carol Rose, *The Comedy of the Commons: Commerce, Custom, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 723 (1986) (arguing a change in characterization of commons because of the potential for seemingly infinite expansion of wealth and an increase in sociability).

78. See *id.* at 768 (“Indefinite numbers and expandability take on a special flavor, relating . . . to ‘interactive’ activities, where increasing participation *enhances* the value of the activity rather than diminishing it. This quality is closely related to scale economies in industrial production: the larger the investment, the higher the rate of return . . .”).

79. See *id.* at 768 (discussing the danger that individuals may underinvest in the commons concept).

80. WESLEY NEWCOMB HOHFELD, *FUNDAMENTAL LEGAL CONCEPTIONS AS APPLIED IN JUDICIAL REASONING AND OTHER LEGAL ESSAYS* 96 (Walter Wheeler Cook ed., 1923).

property.”⁸¹ This Article asserts that the theoretical model to approach issues surround energy easements is through an understanding of the anticommons. Heller defines anticommons property “as a property regime in which multiple owners hold effective rights of exclusion in a scarce resource.”⁸² Prior to Heller’s work, “anticommons property received scant attention in the property literature.”⁸³ In challenging the presumptive efficiency of private property, “Frank Michelman introduces the equivalent of the anticommons [in 1982] through his speculative definition of a ‘regulatory regime.’”⁸⁴ “He defines a ‘regulatory regime’ to be a type of property ‘in which everyone always has rights respecting the objects in the regime, and no one, consequently, is ever privileged to use any of them except as particularly authorized by the others.’”⁸⁵ Michelman’s notion “of the anticommons is derived from a sense of abstract legal symmetry,” where a “regime exists in which all are privileged to use whatever objects they wish and in which no one holds exclusionary rights (that is, a commons), then, as a matter of logic, an anticommons also could exist where no one is privileged to use objects and everyone has the right to exclude.”⁸⁶

The unintended consequence once governments create anticommons property is that it “may be difficult for them to redefine rights without either paying compensation or suffering a blow to their credibility.”⁸⁷ In the American constitutional context, looking at takings jurisprudence, the Supreme Court found the case of *Hodel v. Irving* to be straightforward.⁸⁸ The regulation was unconstitutional, because Congress made no provision for compensating Native Americans when they

81. Michael A. Heller, *The Tragedy of the Anticommons: Property in the Transition from Marx to Markets*, 111 HARV. L. REV. 621, 662 (1998); see also A.M. Honoré, *Ownership*, in OXFORD ESSAYS IN JURISPRUDENCE 107, 107–28 (A.G. Guest ed., 1961) (specifying the standard bundle of rights that constitutes ownership).

82. Heller, *supra* at note 81, at 668.

83. *Id.* at 667.

84. *Id.*

85. *Id.*

86. *Id.*

87. *Id.* at 687.

88. See *id.* at 685–86 (commenting on the simplicity of finding a statute taking the right of Native American’s ability to devise their property to be unconstitutional).

regulated away the possibility of the devise and descent of small, undivided property interests in allotted lands.⁸⁹ The Court held that “the regulation here amounts to virtually the abrogation of the right to pass on a certain type of property—the small undivided interest—to one’s heirs.”⁹⁰ “Because the Court considered the fractionated interest to be ordinary private property, it took away one potential mechanism by which the government could reassemble allotted land into usable form.”⁹¹

Returning to the matter of energy easements, the anticommons can provide a means to reconfigure existing property regimes to achieve greater access and reliability to clean energy.⁹² Since the anticommons is a mix of both public property and private property, public-private partnerships will be crucial in establishing and integrating reliable energy corridors across the country.⁹³ In grappling with questions of authority, overlap, and fragmentation among key governmental entities, Hari Osofsky and Hannah Wiseman point out that “the energy system involves a peculiar fusing of public and private interests, which results in its governance structures varying in the extent to which they are fully public.”⁹⁴ The involvement of private actors in multi-level processes “poses the challenge of establishing appropriate and effective inclusion of private interests without allowing inefficient capture of the public processes.”⁹⁵ While scholars have examined key points of energy federalism and

89. See *Hodel v. Irving*, 481 U.S. 704, 717–18 (1987) (“States’, and where appropriate, the United States’ [have] broad authority to adjust the rules governing the descent and devise of property without implicating the guarantees of the Just Compensation Clause.”).

90. *Id.* at 716.

91. *Heller*, *supra* at note 81, at 687.

92. See *id.* at 688 (stating that bundling property rights can be a good way to make anticommons property useful).

93. See *id.* at 664–65 (discussing the private and public owners of anticommons property).

94. Hari M. Osofsky and Hannah J. Wiseman, *Dynamic Energy Federalism*, 72 MD. L. REV. 773, 837 (2013); see also Stephen Bird, *A Comparison of ISO Governance Structures in the US*, HARVARD ELECTRICITY POLICY GRP., Appendix A-RTO Governance (2002), available at <http://www.hks.harvard.edu/hepg/Papers/Bird%20ISO%20gov%20comparison%20matrix%20App%20A.pdf> (comparing ISO governance structures and each board’s public and private parties) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

95. Osofsky and Wiseman, *supra* note 94, at 837.

regional and national policy for energy integration,⁹⁶ I take a step back to look at the current configuration of the energy easement itself as an impediment to short and long term energy goals.

Previous and existing conceptualizations of the energy easement treat the holder of the easement and the landowner as private actors even though power companies are public actors.⁹⁷ While the overwhelming majority of eminent domain cases are decided in favor of the power companies, evolving problems due to wildlife, environmental concerns, and wealthy landowners can overemphasize conservation claims at the expense of energy access.⁹⁸ With respect to renewable energy, such as wind and solar power, which are intermittent, and increased natural gas production, an entirely new transmission grid is required to bring these clean energy sources to both market parity and production.⁹⁹ Current common law and energy regulation and

96. See Alexandra B. Klass and Elizabeth Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 VAND. L. REV. 1801, 1804 (2012) (providing detail on specific laws, policies, and structures existing at the federal, state, and regional levels to both encourage renewable energy generally and site new transmission lines to accommodate growth in renewable energy); Jody Freeman and Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1134–35 (2012) (arguing “interagency coordination is one of the central challenges of modern governance”); Ashira Pelman Ostrow, *Process Preemption in Federal Siting Regimes*, 48 HARV. J. ON LEGIS. 289, 290 (2011) (identifying an innovative framework for federal-local land use interactions); Ann E. Carlson, *Energy Efficiency and Federalism*, 1 SAN DIEGO J. CLIMATE & ENERGY L. 11, 12 (2009) (suggesting a reallocation of regulatory authority for appliances to mirror the regulation of auto emissions); Robin Kundis Craig, *Adapting Water Federalism to Climate Change Impacts: Energy Policy, Food Security, and the Allocation of Water Resources*, 5 ENVTL. & ENERGY L. & POL’Y J. 183, 186–87 (2010) (asserting that “climate change adaptation also has implications for federalism”); Hannah Wiseman, *Expanding Regional Renewable Governance*, 35 HARV. ENVTL. L. REV. 477, 486 (2011) (proposing a formal governance framework to address the anticommons and regulatory commons elements of utility-scale renewable energy development); Garrick B. Pursley and Hannah J. Wiseman, *Local Energy*, 60 EMORY L.J. 877, 882 (2011) (discussing state and local government response to climate change).

97. See *Correlative Rights of Dominant and Servient Owners in Right of Way for Electric Line*, 6 A.L.R.2d 205, § 2 (1949) (discussing the nature of the actors that are parties to an energy easement).

98. See *id.* at § 3[a] (discussing that historically power companies prevail in cases of eminent domain).

99. See U.S. Dept. of Energy, *What is the Smart Grid?*, SMARTGRID.GOV, https://www.smartgrid.gov/the_smart_grid/smart_grid (last

policy are vastly inadequate for the monumental infrastructural, legal and economic challenges that lie ahead for the establishment of the smart grid.¹⁰⁰

III. State and Federal Common Law Governing Energy Easements

Black's Law Dictionary defines an easement as an “interest in land owned by another person, consisting in the right to use or control the land, or an area above or below it, for a specific limited purpose (such as to cross it for access to a public road).”¹⁰¹ The land benefiting from an easement is called the dominant estate, whereas the land burdened by an easement is called the servient estate.¹⁰² Even though an easement may last forever, it does not give the holder the right to possess, take from, improve, or sell the land.¹⁰³ This Article concerns ROW transmission line easements and touches upon pipeline easements, where laws and rules governing the two types of energy easements intersect.

An easement by necessity for an electric power line encompasses the “right to exercise all the incidents necessary for the full enjoyment,”¹⁰⁴ including entry onto the servient property to perform necessary maintenance and repairs.¹⁰⁵ On the other hand, the servient tenant with respect to a power company’s easement may make any use of the land as long as the use “(1)

visited Nov. 10, 2014) (explaining the U.S. governments current technology and future implementation goals for the Smart Grid) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

100. *See id.* (outlining the current regulation and structure of the United States Smart Grid).

101. *Black's Law Dictionary* 457 (9th ed. 2009).

102. *See id.* (defining dominant and servient estate).

103. *See id.* (distinguishing an easement from a lease or license).

The primary recognized easements are (1) a right-of-way, (2) a right of entry for any purpose relating to the dominant estate, (3) a right to the support of land and buildings, (4) a right of light and air, (5) a right to water, (6) a right to do some act that would otherwise amount to a nuisance, and (7) a right to place or keep something on the servient estate. *Id.*

104. *Tubb v. Monroe Cnty. Elec. Power Ass'n*, 912 So.2d 192, 196 (Miss. Ct. App. 2005).

105. *See id.* at 196 (explaining that maintenance and repairs are one of the necessary incidents).

does not conflict with the power company's rights, and (2) is consistent with the purpose for which the easement was granted, and (3) does not interfere with the dominant tenants free exercise of the easement."¹⁰⁶ The utility company's right to freedom from interference with its facilities may depend on the terms of the easement itself; in some instances, the easement may permit continued use of the premises by the servient owner for purposes not in conflict with the utilities use.¹⁰⁷

Where a public utility exercises its power of eminent domain for the passage of its electric wires over private property, the case law indicates that the company typically acquires the easement.¹⁰⁸ The nature of the easement depends on its purpose, and since such purpose may be served by allowing the landowner to use what is left, the majority of the cases provide the landowner an absolute right to cultivate the surface of the land or use it for other purposes that do not conflict with the easement.¹⁰⁹ Yet the duties and rights of the public utility company and the landowner are not unambiguous.¹¹⁰ In *Carolina Power & L. Co. v. Bowman*, the court stated: "To draw a definite line between the reciprocal and oftentimes overlapping rights and obligations of the owners of the dominant and servient tenements in an easement is not always simple."¹¹¹ It is within the nuances of the law that disputes arise relating to energy easements.¹¹² Especially of concern is the language of prior grants of easements,

106. *Duke Energy Corp. v. Malcolm*, 630 S.E.2d 693, 697 (N.C. App. 2006), *aff'd*, 637 S.E.2d 538 (N.C. 2006).

107. *See Louisiana Power and Light Co. v. Roberts*, 408 So.2d 49, 51 (La. Ct. App. 3d Cir. 1981) (noting the statute provides that the owner of the servient estate may do nothing tending to diminish or make more inconvenient, the use of the servitude).

108. *See Correlative Rights, supra* note 97, at § 2 (summarizing case law expressing the general agreement that companies using the power of eminent domain are granted easements when power lines cross over private property).

109. *See id.* (explaining that, depending on the purpose of the easement, the landowner may have the right to use the land that is left as long as the use does not conflict with the easement).

110. *See Carolina Power & L. Co. v. Bowman*, 51 S.E.2d 191 (N.C. 1949) (explaining the difficulty of delineating the rights and obligations the parties in an easement).

111. *Id.*

112. *See Correlative Rights, supra* note 97, at § 3[a] (summarizing cases where disputes arose over the extent of land rights in energy easements).

many of which were drafted sixty to ninety years ago.¹¹³ Broadly speaking, the courts tend to defer to the express language of the easement in deciding cases.¹¹⁴

Once the court rules that a power company is entitled to an easement or ROW across private property, the ordinary rules governing easements apply.¹¹⁵ In *Cantrell v. Appalachian Power Co.*, where an easement was given in a ROW for the passage of transmission lines over private property, the court stated that “[i]t is an established principle that the conveyance of an easement gives the grantee all such rights as are incident or necessary to the reasonable and proper enjoyment of the easement.”¹¹⁶ An easement possessed by a power company grants the company “all uses directly or incidentally necessary to advance the purposes for which the right of way was reserved.”¹¹⁷ “Though the owner holds title in fee, his right to use must not in any way interfere with full and free use of easement by its owner.”¹¹⁸

The courts have limited the scope of the easement to the original purpose for which it was created.¹¹⁹ For example, an electrical power company with a prescriptive easement over the landowners’ property for the maintenance of power poles and power lines was not authorized to apportion the easement to a fiber-optic cable company for the installation of cable.¹²⁰ The language of the easement is critical in how it is interpreted by the

113. *See id.* (highlighting cases where courts analyzed the language of prior grants of easements to determine a party’s rights).

114. *See id.* (discussing case holdings that defer to the express language of the easement).

115. *See id.* (discussing the application of ordinary rules of easements once one is found to apply in electric utility cases).

116. *Cantrell v. Appalachian Power Co.*, 139 S.E. 247, 248 (Va. 1927) (internal citation omitted).

117. *Georgia Power Co. v. Sullivan*, 124 S.E.2d 634, 637 (Ga. 1962).

118. *Id.* (internal citations omitted); *see also* *Richardson v. Georgia Power Co.*, 708 S.E.2d 10, 12 (Ga. App. 2011) (finding that a landowner who constructed a 20 by 20-foot garage between two utility poles interfered with the terms of an easement owned by the electric utility).

119. *See Ex parte Lightwave Technologies*, 971 So. 2d 712, 718 (Ala. 2007) (“Under Alabama law . . . an easement holder is not entitled to materially alter the scope (or character) of its easement.”).

120. *See id.* at 720 (“APCo did not acquire a right to string any line or cable providing something other than, or related to, electrical power over the easement.”).

courts in matters of conveyances.¹²¹ The easement can be conveyed through the sale of property.¹²² In *Garrison v. Alabama Power Co.*, the court held that a contract for sale of land that stated the buyers would take the property “subject to the right of way” granted to the electrical utility subject “to all reservations, restrictions and easements of record or in evidence through use” would have been sufficient to put purchaser on notice of utility’s easement, if one existed, but it did not create such an easement.¹²³ In *Grand River Dam Authority v. Martin*, when a power company condemned a strip of land as a ROW for its electric transmission lines, the court stated that because the power company did not expressly reserve any rights to the landowner, it was entitled to exclusive control of the land.¹²⁴ The appellate court stated that “the easement sought gave the Authority the right to occupy the entire strip.”¹²⁵ In *Gulf Power Co. v. Glass*, the court stated that the power company was entitled to a mandatory injunction to require the landowner to remove the more than 50 wrecked cars placed there by the owner in close rows in light of the plain terms of the easement grant and the evidence showing that power company and its customers would suffer a two to four-hour delay in the emergency repairs because of need to clear away the cars.¹²⁶ Meanwhile, a contract

121. See *Roy v. Woodstock Comty. Trust, Inc.*, 94 A. 3d 530, 551 (Vt. 2014) (noting that the intent of the parties, language of the deed, and object and purpose to be accomplished determine the character of the easement).

122. See *Deed as Conveying Fee or Easement*, 136 A.L.R. 379 (1942) (explaining that an easement can be created through deed).

123. See *Garrison v. Alabama Power Co.*, 807 So. 2d 567, 572 (Ala. Civ. App. 2001) (commenting that the language puts the purchasers on notice of an easement but that the language alone does not create an easement).

124. See *Grand River Dam Auth. v. Martin*, 138 P. 2d 82, 83 (Okla. 1942) (remarking that there were no rights in the strip of land reserved to the landowner).

125. *Id.*

The denial of any use thereof by Martin was within the power of the Authority, and if he was excluded therefrom, he was without remedy therefor. The easement being perpetual, he was left with only the naked legal title, which is of no definite value to him unless and until the use of the strip for the purposes specified in the easement is abandoned. In such case it was not error to assess the damages as though the fee title to the strip was taken. *Id.*

126. See *Gulf Power Co. v. Glass*, 355 So. 2d 147, 147 (Fla. Dist. Ct. App. 1978) (holding that allowing the cars to remain would “rest Gulf Power's

for the ROW cannot be made by occupancy and lapse of time.¹²⁷ When an ordinance granted a utility ROW for poles and wires through streets of city, the court deeded that the ordinance was *ultra vires* at the time it was passed, because the utility was an occupant at sufferance, and the ordinance did not ripen into contract through use and mutual consent.¹²⁸

An issue that is becoming increasingly prevalent in the courts is the right of the power company to cut or trim “danger trees” on land adjacent to the acquired property.¹²⁹ While the adjacent land may be that of the landowner who originally owned the granted ROW, it may and often does belong to a third person.¹³⁰ The condemner of an electric line ROW has been held entitled to cut “danger trees” adjacent to the ROW acquired, subject to the payment of a reasonable compensation to the owner for their value.¹³¹ The power company has been allowed to remove

enjoyment of its easement on too conjectural a base”); *see also* Givins v. Georgia Power Co., 241 S.E.2d 221, 222 (Ga. 1978) (holding that as a matter of fact the junkyard “interfered with Georgia Power’s right of access”).

127. *See* Ohio ex rel. Klapp v. Dayton Power & Light Co. 170 F. Supp 722, 726 (S.D. Ohio 1957), *vacated*, 399 U.S. 552 (1959) (holding that the legislative act applied and the city had to go before the Public Utilities Commission to argue the utility company was operating without a contract); *see also* Grafton v. Ohio Edison Co., 671 N.E. 2d 241, 246, (Ohio 1996) (commenting that the power utility at issue was an occupant at sufferance inside the city’s geographical limits after the utility’s franchise contract expired).

128. *See Ohio ex. Rel Klapp*, 170 F. Supp at 724–25 (S.D. Ohio 1957) (stating that the court could not make a contract between the parties and the doctrine of equitable estoppel did not apply).

129. *See* Wiggins v. Alabama Power Co., 107 So. 85, 86 (Ala. 1926) (holding that the right to cut “danger trees” is a continuing servitude and applies, not only to tree standing at the time, but to trees that grow in the future). *But see* Kell v. Appalachian Power Co., 289 S.E. 2d 450, 457 (W. Va. 1982) (concluding that although language in a contract may give the power company the right to cut and remove trees, it does not authorize the power company to apply toxic-herbicides to the same trees).

130. *See* Alabama Power Co. v. Berry, 130 So. 541, 544 (Ala. 1930) (finding that the owner of the right of way had a continuing servitude on adjacent lands for the purpose of removing “danger trees”).

131. *See id.* at 544–45 (awarding the landowner fair market value for the damage); *see also* Yadkin River Power Co. v. Wissler, 76 S.E. 267, 270 (1912) (showing that no distinction is made as to such right of the power company to remove “danger trees” based on whether the adjacent landowner is the original owner of the ROW or whether he is a third person); Lacy v. Alabama Power Co., 779 So. 2d 1184, 1186 (Ala. 2000) (stating that the power company had both the right and legal duty to remove danger trees on the

timber outside the ROW that might be considered hazardous to line, but the power company must pay additional compensation to the landowners.¹³²

In *Kanifolsky v. United States*,¹³³ the court considered the rule for adjudicating the parties' rights under the easement, and it stated that Oregon law controlled whether a landowner was entitled to compensation "for the destruction of trees which were growing and standing adjacent to a power line owned and maintained by the United States of America pursuant to a written right-of-way easement owned by it".¹³⁴ In Washington, the owner of the servient estate is "entitled to use [the servient estate] for any purpose that does not interfere with the proper enjoyment of the easement."¹³⁵

The courts have also ordered the removal of buildings and other structures constructed in the electric ROW.¹³⁶ For example,

plaintiff's property and the plaintiffs offered no evidence to show the company did so unnecessarily); *Fitzgerald v. Knapp Bros., Inc.*, 370 A.2d 621, 622 (Conn. Super. Ct. 1976) ("The provisions of that easement granted the defendant a right to trim trees on the plaintiff's property if those trees reached a height where they were close to or actually touching the electric wires of the company.").

132. See *Arkansas Power & Light Co. v. Murry*, 331 S.W.2d 98, 101 (Ark. 1960) (finding that the company may cut the trees but must pay fair market value).

133. 368 F. Supp. 2d 1118 (E.D. Wash. 2005).

134. *Id.* at 1119 (quoting *Coos County Sheep Co. v. United States*, 331 F.2d 456, 457, 460 (9th Cir. 1964)).

135. *Thompson v. Smith*, 367 P.2d 798, 803 (Wash. 1962) (internal citations omitted). *Cf.* Restatement (Third) of Property: Servitudes § 4.9 cmt. c (2000) ("The person who holds the land burdened by a servitude is entitled to make all uses of the land that are not prohibited by the servitude and that do not interfere unreasonably with the uses authorized by the easement or profit."). The *Kanifolsky* landowners insist their house will not interfere unreasonably with the utility's use of the easement. *Kanifolsky*, 368 F. Supp. 2d at 1120. In deciding the case, the court considered the type of improvement and the difficulty to remove it. *Id.* at 1121. The court stated that if the improvement was temporary and easily removed, it was generally not unreasonable. *Id.* The more expensive the improvement or the more difficult its removal is likely to be, the more likely is the conclusion that the improvement is an unreasonable interference with the easement or profit. See Restatement (Third) of Property: Servitudes § 4.9 cmt. c (2000).

136. See *Los Angeles v. Igna*, 25 Cal. Rptr. 247, 248 (Cal. Dist. Ct. App. 1962) (amending the judgment forbidding the defendant from placing or maintaining any building or structure on the premises and granting the city's injunctive relief for the removal of fences, and automobile barriers).

the owner of servient tenement building interfered with a reasonably necessary thirty-foot ROW, even though total width of the lot was only forty-two feet, and the power company as the owner of easement had the right to force removal of the building.¹³⁷ In *Georgia Power Co. v. Sullivan*, the landowner constructed a filling station on the ROW held by the power company, and the court ruled that the construction of the filling station constituted an obstruction that might interfere with power operation of electric transmission, distribution, or communication lines located on property.¹³⁸ The court in *United States ex rel. TVA v. Caylor* stated that inactivity or neglect on the part of the government officers was no defense against the claim by the government to protect its property.¹³⁹ In that case, the court forced the removal of a house, which had been sitting on a transmission line easement for twelve years.¹⁴⁰

Some courts have considered the value of aesthetic loss as a proper element for damages in cases involving energy easements.¹⁴¹ In those cases, the court was at liberty to form its

137. See *Snider v. Alabama Power Co.*, 346 So.2d 946, 949–50 (Ala. 1977) (stating that the trial court correctly found the building directly below the power company's 44,000 volt transmission line interfered with the ROW).

138. See *Georgia Power Co. v. Sullivan*, 124 S.E.2d 634, 637 (1962) (“It is clear that the clause in the deed reserved more than the mere right to have protection against actual interference with the transmission of electricity through the lines, or the right to have protection against actual interference with the right of ingress and egress to the right of way.”).

139. See *United States ex rel. Tennessee Valley Auth. v. Caylor*, 159 F. Supp. 410, 413 (E.D. Tenn. 1958) (finding that inactivity or neglect on the part of the Government was no defense for a property owner who improperly build on a Government easement); see also *In United States ex rel. TVA v. Hughes*, 408 F.2d 619, 621 (6th Cir. 1969) (reversing a trial court ruling which would have allowed a landowner to continue to maintain two immobile house trailers on a TVA flowage easement provided the landowner took certain precautionary measures).

140. See *Tennessee Valley Auth.*, 159 F. Supp. at 413 (holding that the Government could lose its easement due to inactivity or adverse possession).

141. See generally *United States ex rel. Tenn. Valley Auth. v. Easement & Right of Way*, 336 F.2d 76 (6th Cir.), *on remand*, 246 F. Supp. 263 (W.D. Ky.), *aff'd*, 375 F.2d 120 (6th Cir. 1964) (finding that aesthetic loss could be considered); *Texas Elec. Serv. Co. v. Etheredge*, 324 S.W.2d 322 (Tex. App. 1959) (determining that the fact that a power line was unsightly was proper when considering damages).

own judgment.¹⁴² The courts have held that a reasonable person would consider the value of the property to be diminished by unsightliness.¹⁴³ In other instances, the courts have denied damages for unsightliness associated with transmission lines.¹⁴⁴ The courts have denied damages in these cases unless there was some “direct physical disturbance of a right, either public or private”, which the landowner “enjoyed in connection with the property” and that caused “special damage in excess of that sustained by the public generally”, and the damage was direct and proximate and “not merely possible or conceivable” or affecting merely the feelings of the property owner.¹⁴⁵

Courts also consider fear or the perceived danger associated with power line in considering damage valuations.¹⁴⁶

142. See *Union Elec. Co. v. Simpson*, 371 S.W.2d 673, 681 (Mo. Ct. App. 1963) (finding that it was proper for the jury to consider the effect of the power lines on the market value of the property).

143. See, *Kamo Elec. Coop., Inc. v. Cushard*, 455 S.W.2d 513, 516 (Mo. 1970) (holding that “unsightliness” can be considered for damages if it is shown by competent and substantial evidence that this factor diminished the value of the property”).

144. See *Illinois Power & Light Corp. v. Peterson*, 153 N.E. 577, 579 (1926) (finding that claims of damages that create no physical disturbance to the property are remote, speculative and uncertain). In this case, the land consisted of level, fertile, prairie soil adapted for raising farm or garden products and livestock, and had been managed as a farm. *Id.* The easement sought was three rods wide and 1,078.5 feet long, dividing the land into approximately two equal parts. *Id.* at 578. The suspension tower at its anchors underground would occupy about 400 square feet, while at the surface it would occupy an area of 16 square feet. *Id.* One of the elements of damages suggested by the landowner's witnesses was that the tower and line would be unsightly. *Id.* In denying damages for possible unsightliness of the tower and line, the court stated that to warrant a recovery, it must appear that there had been some direct physical disturbance of a right, either public or private, which the property owner enjoyed in connection with his property and which gave to it an additional value, and that by reason of such disturbance he had sustained a special damage with respect to his property in excess of that sustained by the public generally. *Id.* at 579. The alleged unsightliness of the proposed line and tower was held to involve no physical disturbance of a property right, but to be so remote, speculative, and uncertain as to afford no basis for the allowance of damages. *Id.*

145. *Illinois Power & Light Corp. v. Barnett*, 170 N.E. 717, 719 (Ill. 1930).

146. See *Elesalo V. Ale, Condemnation for Energy Corridors: Selected Legal Issues in Acquisitions for Pipeline, Transmission Line and Other Energy Corridors*, Faegre & Benson LLP, Feb. 2009, at 3, available at

“Three distinct views” emerge as to the compensability in eminent domain of a diminution in the value of property due to the fears entertained by prospective buyers of the presence of an electric transmission line or a gas or oil pipeline.¹⁴⁷ Some courts have adopted the view that the fears of prospective purchasers are generally compensable without proof that the fears of danger are reasonable.¹⁴⁸ In such jurisdictions, it has been held that compensation may be awarded for damage attributable to fears of the presence of an electric transmission line or a gas or oil

<http://www.faegrebd.com/webfiles/Energy%20Corridors%20White%20Paper.pdf> (stating that courts allows evidence regarding fear based on three distinct views) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

147. See *id.* at 11–14 (delineating the three approaches to compensability of fear in eminent domain proceedings).

148. See generally *United States ex rel. Tennessee Valley Auth. v. Robertson*, 354 F.2d 877 (5th Cir. 1965) (upholding the trial court’s denial of opportunity of the Government to cross examine plaintiff’s expert for reasonableness in an eminent domain valuation); *United States ex rel. Tenn. Valley Auth. v. Freeman*, 249 F. Supp. 747, (W.D. Ky. 1966) (“Apprehension of injuries to person or property by the presence of power lines on the property may be taken into consideration insofar as the line affects the market value of the land.”); *Evans v. Iowa Southern Utilities Co.*, 218 N.W. 66 (Iowa 1928) (upholding a jury verdict that decreased the market value of land because of a power line); *Central La. Elec. Co. v. Covington & St. Tammany Land & Improv. Co.*, 131 So. 2d 369, (La. App. 1961) (allowing a reduction in market value for fear of danger even when no danger exists); *Central Louisiana Elec. Co. v. Burns*, 131 So. 2d 390 (La. App. 1961) (allowing a finding that a neighboring property will decrease in value because of fear of danger caused by power lines); *Central Louisiana Elec. Co. v. Harang*, 131 So. 2d 398 (La. App. 1961) (allowing severance damages for fear of danger even when danger does not actually exist); *Central Louisiana Elec. Co. v. Mire*, 140 So. 2d. 467 (La. App. 1962) (allowing severance damages for fear of danger even when danger does not actually exist); *Central Louisiana Elec. Co. v. Dunbar*, 183 So. 2d 111 (La. App. 1965) (allowing damages for even unjustified fear of prospective purchasers); *Missouri Pub. Serv. Co. v. Juergens*, 760 S.W.2d 105 (Mo. 1988) (holding it is the fear caused by the risk that actually depreciates the value of the property rather than the risk itself); *Wadsworth Land Co. v. Charlotte Elec. Co.*, 88 S.E. 439 (N.C. 1915) (holding that it was proper for the trial court to consider the danger of trolley poles that stuck out into the street regardless of reasonableness); *Ohio Pub. Serv. Co. v. Dehring*, 172 N.E. 448 (Ohio App. 1929) (holding that fear of danger to landowner, his family, or his livestock is a proper consideration for damages); *Oklahoma Gas & Elec. Co. v. Kelly*, 58 P.2d 328 (Okla. 1936) (allowing for a showing of fear of danger from a railroad that crossed farmland); *Appalachian Power Co. v. Johnson*, 119 S.E. 253 (Va. 1923) (fear of an improperly constructed power line can be considered for damages).

pipeline where the evidence supports the conclusion that the property sustained a diminution in value.¹⁴⁹ Other authorities, recognizing that a diminution in value due to the fears of prospective buyers is compensable in eminent domain, have adopted the view that such fears, in order to be compensable, must be shown to be reasonable.¹⁵⁰ Other authorities have

149. *Ale, supra* note 146, at 3. *See generally* Northern Indiana Pub. Serv. Co. v. Darling, 154 N.E.2d 881 (Ind. 1958) (finding the evidence supported a diminution in property value due to potential natural gas accidents); Fanning v. Mapco, Inc., 181 N.W.2d 190 (Iowa 1970) (ruling that evidence showing damage to crops and buildings can be used to determine a diminution of market value); Texas Pipe Line Co. v. Nat'l Gasoline Co., 14 So. 2d 636 (La. 1943) (finding the evidence supported a jury ruling of a decrease in land value and damage to neighboring land due to a gas pipeline); Tennessee Gas Transmission Co. v. Primeaux, 100 So. 2d 917 (La. App. 1958) (finding landowner was entitled to severance damages due to a gas pipeline that was placed on his property); United Gas Pipe Line Co. v. New Orleans Terminal Co., 156 So. 2d 297 (La. App. 1963) (finding the evidence failed to show damages for a pipeline along the edge of a forty acre urban lot); United Gas Pipe Line Co. v. Nezat, 160 So. 2d 367 (La. App. 1964) (finding that construction of a pipeline would result in a 50% reduction in property values); Texas Gas Transmission Corp. v. Hebert, 207 So. 2d 368 (La. App. 1967) (finding that evidence supported severance damages for the construction of a gas pipeline); Dixie Pipeline Co. v. Barry, 227 So. 2d 1 (La. App. 1969) (finding landowners were due severance damages when pipeline company experts did not assign reasons for their opinions on damages); Collins Pipeline Co. v. New Orleans East, Inc., 250 So. 2d 29 (La. App. 1971) (finding evidence showed property owner was entitled severance damages for strip contiguous to pipeline); Cities Serv. Gas Co. v. Williams, 198 P.2d 204 (Okla. 1948) (finding evidence showed that a farmer was due compensation for land value depreciation and crop damage due to gas pipeline); Arkansas Louisiana Gas Co. v. Cable, 585 P.2d 1113 (1978) (allowing evidence from an expert that he would not build within 100 feet of the right of way because of the decrease in property value).

150. *Ale, supra* note 146, at 3 (explaining the split in court requiring reasonableness when considering fear in land valuations or damages). Some courts have stated that the fear of danger contended to diminish the value of the property must grounded in scientific observation or experience and that the presence of the transmission line must circumscribe the activities which might otherwise be conducted on the property. *Id.* Other authorities have stated that compensation requires proof of a basis in reason or experience for the fear of danger. *See generally* Arkansas Power & Light Co. v. Haskins, 258 Ark. 698, 528 S.W.2d 407 (1975) (requiring a finding of reasonableness by the jury); Yagel v. Kan. Gas & Elec. Co., 291 P. 768 (Kan. 1930) (stating that fears based on reason and practical experience can be considered when valuing land); Missouri Power & Light Co. v. John Hancock Mut. Life Ins. Co., 58 S.W.2d 321 (Mo. App. 1931) (finding that valuation of land has to be reasonable and not based on conjecture). The courts in other jurisdictions have adopted the view that the

concluded that the fears concerning electric transmission lines are unjustified and founded upon ignorance and superstition and have adopted the view that there may be no compensation for alleged diminution in the value of a property due to the fears of prospective purchasers.¹⁵¹ In *Pappas v. Alabama Power Co.*, the court held that the trial court did not err in refusing the landowner's proposed jury instruction that the jury was entitled to consider "mental fear" in determining just compensation.¹⁵² The court stated that the policy of denying compensation for "mere fears" was sound and applicable to contemporary society.¹⁵³ In *Casey v. Florida Power Corp.*, the court held that evidence of possible diminution in the value of land burdened by an easement for an electrical transmission line was too speculative and conjectural to be taken into consideration in arriving at a proper level of compensation.¹⁵⁴

diminution in the value of property due to the reasonable fears of prospective purchasers of the dangers posed by maintenance of a gas or oil pipeline, may be compensable in eminent domain. *See* *Northeastern Gas Transmission Co. v. Tersana Acres, Inc.*, 144 Conn. 509, 134 A.2d 253 (1957) (holding that a well-found public belief in danger from proximity to a gas line can be an element in damages); *Delhi Gas Pipeline Co. v. Mangum*, 507 S.W.2d 631 (Tex. Civ. App. 1974) (stating that fear of explosions of a gas line can be used in depreciation calculations if there is a basis in reason and experience for the fear).

151. *Ale, surpa* note 146146, at 14. *See generally* *Alabama Power Co. v. Keystone Lime Co.*, 67 So. 833 (Ala. 1914) (stating that mere public fear not a basis for diminution); *Southern Elec. Generating Co. v. Howard*, 156 So.2d 359 (Ala. 1963) (holding that conjectural or speculative fears are not an element of damages); *Deramus v. Alabama Power Co.*, 265 So.2d 609 (Ala. App. 1972) ("[P]ublic or personal fear or apprehension of the presence of such lines is not compensable).

152. *See* *Pappas v. Alabama Power Co.*, 119 So. 2d 899, 905 (Ala. 1960) (finding that in the age of modern technology and science mere speculative fear of depreciation will not result in damages).

153. *See id.* at 905 (refusing plaintiff's request for damages based upon mere fears).

154. *See* *Casey v. Florida Power Corp.*, 157 So. 2d 168, 170–71 (Fla. Dist. Ct. App. 1963) ("[W]hen a jury must base its award upon ignorance and fear, we must draw the line; such a basis cannot possibly result in fair and just compensation."). Although the court recognized that the landowner was entitled to full and just compensation, the court stated that jury awards based on "fear and ignorance" could not possibly result in fair compensation. *Id.* The court held that the trial court's exclusion of testimony that the presence of power lines would reduce the value of the remaining land as a result of the public apprehension of hazard was not erroneous. *Id.*

Three common issues emerge from the above-mentioned case law regarding the treatment of energy easements in disputes involving power companies and landowners. First, the courts rely on the express language of easement in disputes regarding use and access to the land.¹⁵⁵ Second, eminent domain cases are almost always decided in favor of the power companies.¹⁵⁶ Third, there is no clear basis for valuation of damages due to loss of use and enjoyment of the easement property on account of elements of fear and unsightliness.¹⁵⁷ While the status quo will likely hold true in the first issue of interpretation of rights and duties based on the easement language, a shift has slowly started to emerge in grants of easements based on eminent domain proceedings and valuation of damages for loss of the use and enjoyment of the property.¹⁵⁸ The next section focuses on climate change and energy policies on the domestic and international levels which weigh into the future of energy easements.

IV. Revamping Energy Policy and Environmental Laws and Regulations

A. President Obama's Climate Change Plan

Unveiled in June 2013, President Barack Obama's climate change plan hinges on public-private partnerships.¹⁵⁹ The onus of the initiative lies in reduced emissions by power plants,¹⁶⁰ but the more significant and long-term implications of the plan depend on the ability of businesses and the government to work together

155. See *supra* note 114 and accompanying text.

156. See *Correlative rights*, *supra* note 97, and accompanying text.

157. See *Ale*, *supra* note 146, at 3 (explaining that few courts allow fear and unsightliness as factors in valuation).

158. See *supra* note 114; see also *Ale*, *supra* note 146 and accompanying text.

159. See EXECUTIVE OFFICE OF THE PRESIDENT, THE PRESIDENT'S CLIMATE ACTION PLAN 6 (2013), available at <http://www.whitehouse.gov/sites/default/files/image/president27sclimateactionplan.pdf> (explaining that the plan outlines steps that will be taken with the private sector) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

160. See *id.* at 11 (describing the goal of the federal government consuming twenty percent of its energy from renewable sources by 2020).

at both the federal, state, and local levels.¹⁶¹ The climate change initiative seeks to have states complement the work of the Environmental Protection Agency (EPA).¹⁶² In effect, the climate change plan gives the EPA more teeth.¹⁶³ What is notable is that more than thirty-five states have already instituted renewable energy targets on their own, and twenty-five states have established energy efficiency targets.¹⁶⁴ Obama hopes to build on state leadership to take advantage of a wider array of energy sources and technologies.¹⁶⁵ He plans to lead by example with federal agencies creating a new goal of reaching one hundred megawatts of installed renewable capacity across the federally subsidized housing by 2020.¹⁶⁶ Obama wants to galvanize those states lagging behind, and he wants to do so from both the top-down and bottom-up.¹⁶⁷

Earlier energy commentators suggested that the move for executive action on climate change signaled an impending decision in favor of the Keystone XL Pipeline.¹⁶⁸ Such a decision, while unsurprising, would not be incongruent with the goal of sustainable energy.¹⁶⁹ More recently, though, the White House

161. See *id.* at 13 (discussing establishing a state, local, and tribal task force on climate preparedness).

162. See *id.* at 6 (reviewing the President's plan to have the EPA build on state plans to cut carbon pollution from power plants).

163. See generally *id.* (instructing the EPA in multiple areas to take action).

164. See *id.* at 6 (praising the fact that more than 35 states have renewable energy targets already in place).

165. See *id.* at 6 (noting American leadership in clean energy technologies and the states leadership in developing energy efficiency targets).

166. See *id.* at 7 (stating that the government will conduct a survey to measure progress and establish best practices).

167. See *id.* at 10–11 (remarking that working collaboratively across sectors will result in improved air quality and reduction in emissions.).

168. See Ryan Lizza, *The President and the Pipeline*, *NEW YORKER* (Sept. 16, 2013), available at http://www.newyorker.com/reporting/2013/09/16/130916fa_fact_lizza (noting that President's Obama's views on Keystone do not necessarily align with the environmentalists) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

169. See Linda Feldman, *Keystone XL Pipeline: Did Obama Just Drop a Big Hint About his Decision?* *CHRISTIAN SCI. MONITOR* (Jun. 25, 2013), available at <http://www.csmonitor.com/USA/Politics/2013/0625/Keystone-XL-pipeline-Did-Obama-just-drop-a-big-hint-about-his-decision-video> (noting President Obama's energy policy will likely include the Keystone pipeline in

has indicated that the Keystone XL would provide “not even a nominal benefit” to U.S. consumers.¹⁷⁰ Oil from Canadian tar sands will be transported through the United States; the question is whether by rail, road, or pipeline.¹⁷¹ With this looming decision potentially in favor of the Keystone XL Pipeline, critics charge that the White House administration may be appealing to environmentalists by claiming the pipeline will only be approved if it does not increase greenhouse gas emissions.¹⁷² Obama’s environmental and energy policies have been inconsistent, but are evidently skewed in favor of the industry.¹⁷³ Obama maintains that natural gas is the “critical bridge fuel” as the world transitions to cleaner renewables.¹⁷⁴ The Obama administration wants to partner with states and private companies to share ideas.¹⁷⁵ Some of the important points of the climate change plan include: “the Unconventional Gas Technical Engagement Program to share best practices on issues such as water management, methane emissions, air quality, permitting, contracting, and pricing to help increase global gas supplies and facilitate development of the associated infrastructure that brings them to market;”¹⁷⁶ a Quadrennial Energy Review of energy infrastructure challenges through collaboration by the White

addition to renewable energy and limiting carbon emissions) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

170. See *Editorial: More Keystone Stonewalling from President*, LAS VEGAS REVIEW JOURNAL, (Dec. 30, 2014), available at <http://www.reviewjournal.com/opinion/editorial-more-keystone-stonewalling-president> (explaining that President Obama had taken a concrete position that against the Keystone XL pipeline) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

171. See *id.* (noting the divide between environmentalists on how to interpret President Obama’s remarks).

172. See *id.* (reviewing President Obama’s remarks at Georgetown University ultimately signaling his non-support for the pipeline given studies showing the pipeline would produce higher emissions).

173. See *id.* (reviewing the president’s energy policy arguing that he is likely to support the pipeline).

174. See Executive Office of the President, *supra* note 159, at 19 (stating that, because natural gas is only half as carbon-intensive as coal, the United States will continue to drive the development of natural gas technology).

175. See *id.* (stating that the administration will collaborate with states and private companies and share the lessons learned with our international partners).

176. *Id.*

House and cabinet groups, federal agencies and outside stakeholders;¹⁷⁷ acceleration of “advanced biofuels for use by the military and commercial sectors;”¹⁷⁸ leveraging of public-private partnerships to deploy cleaner fuels, “including advanced batteries and fuel cell technologies, in every transportation mode;”¹⁷⁹ the Department of Agriculture’s Rural Utilities Service’s “Energy Efficiency and Conservation Loan Program to provide up to \$250 million for rural utilities to finance efficiency investments by businesses and homeowners across rural America;”¹⁸⁰ and a Climate Data Initiative to manage “extensive federal climate-relevant data to stimulate innovation and private-sector entrepreneurship in support of national climate-change preparedness.”¹⁸¹

It has been argued that regulations are most successful when emerging from flexible rather than rigid methods of implementation.¹⁸² Cary Coglianese explains that regulation consists of two binary approaches: a lack of restrictions and command-and-control regulation.¹⁸³ Coglianese argues that the dichotomy between these two options “fails to capture the full range of options that lie between the polar extremes of absolute discretion and total control.”¹⁸⁴ From a broader perspective, regulatory governance incorporates “pressures and policies deployed by a variety of actors, both governmental and nongovernmental, to shape the behavior of firms and thereby address market failures and other public problems.”¹⁸⁵

177. See *id.* at 7–8 (explaining the Federal Quadrennial Energy Review).

178. *Id.* at 8.

179. *Id.*

180. *Id.* at 9.

181. *Id.* at 16.

182. See generally EUGENE BARDACH AND ROBERT A. KAGAN, GOING BY THE BOOK: THE PROBLEM OF REGULATORY UNREASONABLENESS (1982) (proposing a flexible approach to regulation to deal with the issue of “regulatory unreasonableness”).

183. See Cary Coglianese & Evan Mendelson, *Meta Regulation and Self-Regulation* in THE OXFORD HANDBOOK ON REGULATION 1 (Martin Cave, Robert Baldwin & Martin Lodge, eds. 2010) (stating the conventional view of regulation emphasizes freedom and control).

184. *Id.*

185. *Id.*

The climate change plan depends on the role of private outside stakeholders.¹⁸⁶ Obama's climate change plan may be thwarted by Congress or the Supreme Court, but the political will of everyday Americans wanting clean energy is harder to halt.¹⁸⁷ Without a change in policies to support sustainable energy, private ventures for clean energy will be unable to thrive.¹⁸⁸ Obama's climate change plan parallels an international effort for the establishment of sustainable energy.¹⁸⁹ Realizing and learning from global efforts for sustainable energy, which will also require an elaborate transmission line and pipeline networks to bring clean energy to consumers, will be key in looking at the conceptual framework for energy easements.

A sustainable energy policy for the United States would allow moderate consumption of nonrenewable resources to remain as a relatively low-cost energy option, require steady development of alternatives such as energy efficiency measures and renewable energy sources, and avoid

186. See Executive Office of the President, *supra* note 159, at 16 (“[T]he Obama Administration will work collaboratively with state governments, as well as the private sector, to reduce emissions across multiple sectors, improve air quality, and achieve public health and economic benefits.”).

187. See Stephen Ansolabehere and David Konisky, *Energy: What Americans Really Want: A Massive Survey Shows We're not as Divided as We Think*, BOSTON GLOBE (Sept. 14, 2014), <http://www.bostonglobe.com/ideas/2014/09/13/energy-what-americans-really-want/SdM914A5hoIK4rKP2rKn3O/story.html> (stating that, though congressional action on climate change seems hopeless, Americans are willing to make the sacrifices needed to move to clean energy) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

188. Kevin L. Doran, *Can the U.S. Achieve A Sustainable Energy Economy from the Bottom-Up? An Assessment of State Sustainable Energy Initiatives*, 7 VT. J. ENVTL. L. 3, 3 (2006). (“Despite these lofty and noble verbal gesticulations—and more importantly, despite their coordinate policies—America has not achieved the ideal of a sustainable energy economy; and quite arguably, federal policies have not placed it on a plausible trajectory for doing so.”).

189. See Executive Office of the President, *supra* note 159, at 18–19 (noting that the United States and various other countries have developed initiatives for the development of clean energy).

unacceptable environmental and social costs both for the present and future.¹⁹⁰

The formulation of such a policy will require scientific and economic analysis.¹⁹¹

B. United Nations Sustainable Energy for All Initiative

The United Nations Sustainable Energy for All initiative recognizes the central role energy plays in development.¹⁹² This renewable energy development initiative is stimulated by fears of energy security and concerns to mitigate environmental degradation caused by conventional fossil fuels.¹⁹³ The United Nations “Sustainable Energy for All” initiative has a tripartite goal for 1) universal access to modern energy services, 2) doubled rates of energy efficiency, and 3) doubled shares of renewable energy in the global energy mix—all by 2030.¹⁹⁴

As a leading voice for eco-efficiency, the United Nations Division for Sustainable Development under the Department of Economic and Social Affairs, has devised priorities to achieve its goals to: (1) “[f]acilitate intergovernmental negotiations, consensus-building and decision-making”; (2) “[p]rovide technical assistance, expert advice and capacity building to support

190. Hannah Wiseman, Lindsay Grisamer, & E. Nichole Saunders, *Formulating a Law of Sustainable Energy: The Renewables Component*, 28 PACE ENVTL. L. REV. 827, 840 (2011).

191. *See id.* (stating that, though several domestic factors are already known, scientists and economists would need to analyze the impact of a sustainable energy policy).

192. *See* U.N. Secretary-General, Sustainable Energy for All: A Vision Statement by Ban Ki-moon, Secretary-General of the United Nations 8 (Nov. 2011) http://www.un.org/wcm/webdav/site/sustainableenergyforall/shared/Documents/SG_Sustainable_Energy_for_All_vision_final_clean.pdf (stating the need for proper incentives, including supportive policy, legal, and institutional frameworks as well as public-sector engagement, public-private partnerships, sustainability policies, elimination of fossil fuel subsidies, and support for sustainable energy industries and their entrepreneurs) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

193. *See id.* at 2 (discussing the energy issues the world faces, including security and climate change caused by emissions from fossil fuels).

194. *See id.* at 4 (discussing the goals of the Sustainable Energy for All initiative).

developing countries and countries with economies in transition in their efforts to achieve sustainable development”; (3) “[f]acilitate inter-agency and inter-organizational cooperation, exchange and sharing of information, and catalyze joint activities and partnerships within the United Nations system and with other international organizations, governments and civil society groups in support of sustainable development”; (4) “[p]romote and facilitate monitoring and evaluation of, and reporting on, the implementation of sustainable development at the national, regional and international levels”; and (5) “[u]ndertake in-depth strategic analyses to provide policy advice.”¹⁹⁵ The United Nations priorities appear hefty, but the critical issues are negotiation, exchange of innovation, and appreciation for the process of cultivating and fostering sustainable development principles.¹⁹⁶

National and international goals for sustainable energy coincide with the desire for energy justice and energy security.¹⁹⁷ Historically national security was “associated with armed aggression and the ability to thwart military invasions or subversion,” but a more contemporary analysis includes “critical threats to vital national and international support systems such as the economy, energy, and the environment.”¹⁹⁸

195. See *About the DSD*, U.N. DEP’T OF ECON. & SOC. AFFAIRS, DIV. FOR SUSTAINABLE DEV. http://sustainabledevelopment.un.org/content/dsd/dsd/dsd_index.shtml (last visited Dec. 18, 2014) (describing the mission, goal, and priority activities of the Division for Sustainable Development) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

196. See *Sustainable Energy for All*, *supra* note 192, at 8 (stating that proper incentives are needed to spur innovation).

197. See *id.* at 2 (stating that energy enables major shifts towards greater productivity, prosperity, and comfort).

198. See Lakshman D. Guruswamy, *Sustainable Energy: A Preliminary Framework*, 38 IND. L. REV. 671, 674 (2005) (“Because the demand for oil and gas far exceeds the supply within those countries that rely most heavily upon them, these countries are compelled to import oil and gas from politically volatile parts of the world.”).

V. Complications with Long Distance Energy Projects

A. The Tennessee Valley Authority and Utility Vegetation Management

The removal of trees by the Tennessee Valley Authority (TVA) along its transmission lines drew the ire of public officials in Huntsville, Alabama.¹⁹⁹ This tree removal project is what precipitated a federal lawsuit in Knoxville, Tennessee, against TVA by local residents.²⁰⁰ The citizens were protesting the utility company's new policy to remove all trees with the potential to grow taller than 15 feet within the easement that TVA maintains for its transmission lines.²⁰¹ Brian Tomasovic has examined the troubled coexistence of trees and above ground power lines.²⁰² As vegetation grows near or into utility wires in search of sunlight and airspace, it threatens to disrupt utility services.²⁰³ For the operators who seek to reliably transmit and distribute electricity along overhead wires, vegetation encroachment is a constant and, quite literally, growing threat.²⁰⁴ The electric transmission and

199. See Paul Gattis, *As TVA's Tree-Cutting Policy Angers Huntsville, Utility Facing Federal Lawsuit in Tennessee*, AL.com (Feb. 4, 2013, 2:28 PM), http://blog.al.com/breaking/2013/02/as_tvas_tree-cutting_policy_an.html (discussing reaction to the TVA's tree-cutting policy) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

200. See *id.* (discussing the federal lawsuit filed by two Knoxville, Tenn. residents against the TVA).

201. See *id.* (explaining the contested tree removal policy).

202. See Brian S. Tomasovic, *A High-Voltage Conflict on Blackacre: Reorienting Utility Easement Rights for Electric Reliability*, 36 COLUM. J. ENVTL. L. 1, 2-3 (2011) (discussing the historical relationship between trees and above-ground power lines).

203. See John Goodfellow, *Investigating Tree-Caused Faults*, TRANSMISSION & DISTRIBUTION WORLD (Nov. 1, 2005), <http://tdworld.com/reliability-amp-safety/investigating-tree-caused-faults> (exploring the idea of trees as unique causes of momentary interruptions) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

204. See *id.* (describing the issues related to structural failure of trees around overhead power lines). Reliability is the ability to provide a continuous supply of electricity at the proper voltage and frequency (adequacy) and to withstand sudden, unexpected disturbances (security); *Understanding the Grid: Reliability Terminology*, N. Am. Elec. Reliability Corp. (Dec. 2012), <http://www.nerc.com/AboutNERC/Documents/Understanding%20the%20Grid%2>

distribution industry solution to this threat is known as Utility Vegetation Management (UVM), and it integrates long-standing past practices like manual line clearing and tree trimming with relatively new techniques such as the use of herbicides, tree growth stunters, and selective vegetation removal and replacement.²⁰⁵ Tomasovic argues that, in carrying out UVM, utility companies have faced the potential of legal challenges from the owners or admirers of trees who object to the methods or extent of UVM.²⁰⁶ This kind of legal conflict has endured for more than a century, as the first court cases concerning trees and overhead utilities dealt not with power lines, but with predecessor technology such as telegraph wires and telegraphic fire-alarm systems.²⁰⁷ As early electrical companies earned recognition as public utilities with eminent domain authority, they were able to secure easements, or ROWs to install and maintain overhead lines through private property.²⁰⁸ In easement-based disputes over wires and trees, courts have traditionally considered whether the various actions of a utility company performing vegetation management fall within the grant of rights afforded by the idiosyncratic language of a particular easement.²⁰⁹

ODEC12.pdf (defining reliability in terms of adequacy and operating reliability) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

205. See Randy Miller, *From the Desk of the President: We Are Not Tree Trimmers*, TRANSMISSION & DISTRIBUTION WORLD, June 1, 2009, <http://tdworld.com/vegetation-management/desk-president-we-are-not-tree-trimmers> (discussing UVM and the various techniques involved) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

206. See Tomasovic, *supra* note 202, at 3 (identifying legal challenges that utility companies have faced from disgruntled arboreal enthusiasts).

207. See generally *W. Union Tel. Co. v. Williams*, 11 S.E. 106 (Va. 1890) (holding that telegraph companies can maintain lines so long as they do not interfere with the ordinary use of roads); see also *Tissot v. Great S. Tel. & Tel. Co.*, 3 So. 261 (La. 1887) (stating that it is improper for a company to cut a twenty-five to forty foot clearing for an almost imperceptible wire), *Van Siclen v. Jamaica Elec. Light Co.*, 61 N.Y.S. 210, 212 (App. Div. 1899) (denying a power company the right to cut trees for electric lines for street lights without a need to do so to fulfill a contract).

208. See *Shasta Power Co. v. Walker*, 149 F. 568, 570 (C.C.N.D. Cal. 1906) (vesting utility companies with the power to take easements or ROWs through private property through eminent domain).

209. See *Marshall v. Ga. Power Co.*, 214 S.E.2d 728, 730 (Ga. Ct.

In *Sherwood v. Tennessee Valley Authority*, plaintiffs sued as a result of TVA's vegetation management policy, which they claimed required the removal of all trees, by cutting or using herbicide, that have a mature height of fifteen feet or taller within TVA's 15,900 mile transmission line right-of-way.²¹⁰ The court stated that although plaintiffs argued there must be a rational connection between TVA's clearing activities and the transmission of electric power, the language of each grant is unambiguous, and that TVA's new policy and proposed clear-cutting of the trees did not exceed the scope and the purpose of the easement grants.²¹¹ The court further stated that there was no need to balance the burdens that may be imposed upon the parties.²¹²

As the electrical infrastructure grows more extensive and intensive, vegetation management practices will also expand in scale and complexity, attracting greater regulatory scrutiny.²¹³

Recent federal and state vegetation clearance standards are a consequence of new governmental attention to electric reliability, and these regulatory compliance obligations will translate into more aggressive vegetation management practices. However, new UVM practices and uniform conductor-to-vegetation clearance standards may not be compatible with the

App. 1975) (holding that a landowner could not recover damages after a power company cut down Christmas trees because they were just trees and not considered growing crops); *see also* *Duresa v. Commonwealth Edison Co.*, 807 N.E.2d 1054 (Ill. App. Ct. 2004) (explaining that completely removing trees is not included in the definition of trimming trees); *Biber v. Duquesne Light Co.*, 344 A.2d 628 (Pa. Super. Ct. 1975) (explaining that the question of whether the use of chemicals to clear land of vegetation violates an easement is a question for the jury).

210. *See* *Sherwood v. Tennessee Valley Auth.*, 925 F. Supp. 2d 906, 911–12 (E.D. Tenn. 2013) (providing the factual background of the dispute).

211. *See id.* at 918. (“Each grant allows TVA the right to clear, or remove, brush, timber, and trees, and this right is ‘perpetual.’”).

212. *See id.* (finding that, because the language of the easement was unambiguous, that there was no need to balance the burdens that may be imposed on the parties).

213. *See* *Tomasovic*, *supra* note 202, at 4 (addressing the regulatory changes associated with expansion of power systems).

outdated, narrowly written, and variable grant language of past utility easements, because the constraints of easement language may ultimately interfere with regulatory compliance and the utility's ability to mitigate the special risks posed by vegetation.²¹⁴

Tomasovic argues that “courts, public utility commissions and legislatures should, when possible, avoid easement construction and resolve tree-owner/electric utility conflicts under the framework of the public nuisance abatement doctrine.”²¹⁵ Through this “approach, the landowner, the utilities, and electric customers will benefit from a scheme of scientifically-based, standardized, minimal abatement actions against power line-encroaching vegetation.”²¹⁶

B. Wyoming's Chokecherry Wind Project

The quiet land rush among the buttes of southeastern Wyoming is changing the local rancher culture.²¹⁷ The winds, which were cursed by descendants of the original homesteaders, now have value for out-of-state developers who envision building wind farms or selling the rights to bigger companies.²¹⁸ The Chokecherry and Sierra Madre Wind Energy Project in Carbon County, Wyoming, is one such endeavor, and it spans a combination of private land owned by the Overland Trail Cattle Company, LLC and federal land managed by the Bureau of Land Management (BLM).²¹⁹ Seventy-three year old Denver billionaire

214. *Id.*

215. *Id.*

216. *Id.*

217. See Felicity Barringer, *A Land Rush in Wyoming Spurred by Wind Power*, N.Y. TIMES (Nov. 27, 2008), http://www.nytimes.com/2008/11/28/us/28wind.html?partner=permalink&expd=permalink&_r=0 (discussing the recent land rush in Wyoming), (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

218. See *id.* (explaining that the land now has much higher value because of the potential for wind farms).

219. See *Putting Wind to Work for Carbon County*, POWER COMPANY OF WYOMING L.L.C. <http://www.powercompanyofwyoming.com> (last visited Dec. 15, 2011) (describing the Wind Energy Project and its goals) (on file with the WASHINGTON & LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

Phil Anschutz is seeking to wager \$9 billion on the fierce Wyoming winds through the Power Company of Wyoming.²²⁰ The Sierra Madre and Chokecherry Wind Project, spanning 2,000 acres, would contain 1,000 wind turbines at a cost of up to \$6 billion, and the TransWest power line, a \$3 billion project, would carry 3,000 megawatts of power across four states to a point south of Las Vegas, where it could connect with the California power grid.²²¹ This 725-mile transmission line will be the longest to be built in decades, and the wind farm itself will be the nation's largest wind farm.²²²

"While the 600-kilovolt line will run primarily over public land, there are spots where it crosses state and private property."²²³ Developers aim to secure easements and stay within existing pipeline and transmission corridors, but the transmission line will be a direct current²²⁴ and has no energy connections in the four states.²²⁵ In Wyoming, the project has also

220. See Mark Jaffe, *Phil Anschutz and Wind Energy in Wyoming: Entrepreneur's latest \$9 billion idea*, DENVER POST (Jan. 1, 2013), http://www.denverpost.com/ci_22405743/big-bet-wyoming-wind-anschutzs-latest-idea (discussing the entrepreneur's investment plan) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

221. See *id.* (describing the details of the Wyoming wind energy project).

222. See *id.* (noting that the project aspires to build the nation's largest wind farm and the longest transmission lines to be built in decades). Chokecherry and Sierra Madre Wind Energy Project advanced President Obama's all-of-the-above energy strategy, and with its approval, the Department of Interior reached the President's goal of authorizing 10,000 MWs of renewable energy on public lands. See Press Release, U.S. Dep't of Interior, Salazar Authorizes Landmark Wyoming Wind Project Site, Reaches President's Goal of Authorizing 10,000 Megawatts of Renewable Energy (Oct. 9, 2012), <http://www.doi.gov/news/pressreleases/Salazar-Authorizes-Landmark-Wyoming-Wind-Project-Site-Reaches-Presidents-Goal-of-Authorizing-10000-Megawatts-of-Renewable-Energy.cfm> (discussing the political support the project has garnered) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

223. Jaffe, *supra* note 220.

224. See Definition of *Direct Current*, MERRIAM-WEBSTER DICTIONARY (2014), available at <http://www.merriam-webster.com/dictionary/direct%20current> (defining direct current as an electrical current flowing in one direction only and substantially constant in value) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

225. See Jaffe, *supra* note 220 (noting that Utah residents expressed frustration that the project provides no benefit to the state).

garnered criticism from environmental groups.²²⁶ The biggest hurdle remains for selling the power into California, which will account for two-thirds of the West's renewable energy demand between 2010 and 2020.²²⁷

"Each [wind] turbine must be individually approved by the federal Bureau of Land Management [(BLM)], whose record of decision in favor of the project is basically an approval of an overall plan, not specific details."²²⁸ "Each turbine will need an access road. Parts will need to be shipped in via rail, meaning a loading facility is also necessary."²²⁹ "The Chokecherry and Sierra Madre project is expected to be permitted for thirty years, although the project life can be extended."²³⁰ By the time it is complete, the project will have taken five years to build and as long as eleven years to plan.²³¹

Aside from the logistics, permitting, and siting issues for the project infrastructure, community expectations will also have to be considered.²³² The project required collaborative involvement with five federally recognized tribes and state and federal agencies and resulted in a Programmatic Agreement to mitigate impact to historic and Native American resources.²³³ "The Programmatic Agreement incorporates measures to continue tribal consultation throughout the life of the project."²³⁴ The five tribes included the Northern Cheyenne Tribe, Northern Arapahoe, Eastern Shoshone, Northern Ute, and Fort Peck

226. *See id.* (addressing the opposition the project has met from environmental groups).

227. *See id.* (discussing expansion of the plan into California).

228. Adam Voge, *Intensive work begins on Wyoming wind power mega-project*, CASPER STAR-TRIBUNE (May 28, 2013, 11:30 AM) http://trib.com/business/energy/intensive-work-begins-on-wyoming-wind-power-mega-project/article_b5231a49-4b54-5b79-9ba1-1ec5cbee6058.html (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

229. *Id.* The Power Company of Wyoming ("PCW") plans to install capacity necessary to offload multiple parts and trains simultaneously, but the facility is still being designed. *Id.*

230. *Id.*

231. *See id.* (noting the lengthy character of the planning process).

232. *See* U.S. Dep't of Interior Press Release, *supra* note 222 (explaining that the project will be sensitive toward tourism and outdoor recreation values).

233. *See id.* (describing the collaborative nature of the project).

234. *Id.*

Assiniboine/Sioux tribes.²³⁵ Historically, energy development has been the economic lifeblood of many Indian tribes, and a number of tribal economies are heavily dependent on fossil fuel extraction.²³⁶ Accordingly, tribal communities typically appreciated the importance of natural resource extraction and energy transmission.²³⁷

Another component of the project required consultation with the BLM and the U.S. Fish and Wildlife Service to design an Aviation Protection and Eagle Conservation Plan, which included measures to avoid, minimize, and mitigate impacts to all avian and bat species.²³⁸ Data collected as part of the above surveys will be used to identify the measures that will be taken to conserve avian and bat species.²³⁹ PCW's comprehensive conservation plan promotes conservation of many other wildlife and fish species in the project area.²⁴⁰ PCW is actively working with the U.S. Fish and Wildlife Service, Bureau of Land Management, and Wyoming Game and Fish Department to identify and implement appropriate conservation measures.²⁴¹

235. See *id.* (specifying with which tribes will collaborate with the project).

236. See Judith Royster, *Tribal Energy Development: Renewables and the Problem of the Current Statutory Structures*, 31 STAN. ENVTL. L.J. 91, 92 (2012) (discussing tribal economic dependency on energy development).

237. See *id.* at 92–95 (noting that, though tribes do not often participate in extraction themselves, fossil fuels are the single greatest source of tribal revenue).

238. See, *Responsible Renewable Energy Development*, POWER COMPANY OF WYOMING LLC, <http://www.powercompanyofwyoming.com/environmental/index.shtml> (last visited Dec. 15, 2014) (discussing the project's commitment to preserving the environment including a comprehensive wildlife conservation plan and an avian and bat monitoring and protection plan) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

239. See *id.* (discussing the company's efforts to minimize its impact on local wildlife, the data being collected on the wildlife, and how that data is being applied).

240. See *id.* (noting that eagles and bats are not the only wildlife that will benefit from the project's conservation efforts).

241. See *id.* (reiterating the project's commitment to collaboration with government wildlife management agencies and insuring that the local wildlife is minimally impacted). "Since many species are dependent on the same or similar habitats, conservation actions directed towards one species will benefit others as well." *Id.*

A part of the wildlife conservation efforts includes a sophisticated avian radar system, which has the primary purpose to collect data and insight into habitat uses and migration patterns of golden eagles.²⁴² The monitoring program also will identify any areas of high eagle usage, which may then be considered when siting turbines and designing the Eagle Conservation Plan.²⁴³ The project will avoid Sage-Grouse Core Areas through a conservation plan that accommodates ongoing ranching and agricultural operations.²⁴⁴ PWC initiated a significant multi-year greater sage-grouse monitoring program at its wind power project site.²⁴⁵ “Designed by expert wildlife biologists at SWCA Environmental Consultants, the tagging and monitoring program uses proven capture techniques, established industry protocols, and GPS technology successfully deployed in other state wildlife programs.”²⁴⁶

The developers avoided sensitive viewsheds to protect tourism and outdoor recreation.²⁴⁷ However, the desire for

242. See, *PCW Begins Unique Avian Monitoring Program*, POWER COMPANY OF WYOMING L.L.C., (May 20, 2011), available at <http://www.powercompanyofwyoming.com/news/alerts/2011/052011-monitoring-program.shtml> (explaining the avian monitoring program) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

243. See *id.* (detailing the science-based Eagle Conservation Plan for the proposed Chokeycherry and Sierra Madre Wind Energy Project).

244. See *id.* (noting the greater sage-grouse monitoring program launched in April 2010).

245. See, *PCW Begins Sage-Grouse Monitoring Program as Part of Comprehensive Wildlife Conservation Plan*, POWER COMPANY OF WYOMING L.L.C., April 7, 2010, available at <http://www.powercompanyofwyoming.com/news/releases/2010/040710-sage-grouse.shtml> (summarizing PCW's implementation of its conservation plan)(on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT). “Forty female sage-grouse on The Overland Trail Cattle Company ranch are being tagged with lightweight GPS devices that will provide scientific data and insight into seasonal habitat uses by the species.” *Id.* “The tagged sage-grouse will come from both within and outside of the proposed development area for the Chokeycherry and Sierra Madre Wind Energy Project.” *Id.* “Seasonal usage in the early stages of the monitoring effort will serve as a pre-development baseline to which future use of the wind development area by sage-grouse can be compared.” *Id.*

246. *Id.*

247. See U.S. Dep't of Interior Press Release, *supra* note 222 (explaining the care taken in designing the Eagle Conservation Plan to minimize and mitigate impacts).

sustainable wind energy projects in Wyoming has met with resistance from ranchers, farmers, and lawmakers, who are more keen on the traditional oil and gas sector in the area.²⁴⁸ Federal lawmakers and wind industry advocates have been fighting over the production tax credit that incentivized the initial development of wind farms.²⁴⁹ The Wyoming congressional delegation wanted to see it expire, but renewable energy advocates want it to continue.²⁵⁰ The tax credit was close to extinction at the end of the 2012 fiscal cliff negotiations, but Congress extended the credit for one year.²⁵¹ Wyoming

248. See Ken Otterbourg, *The Power Struggle for Wyoming's Wind*, FORTUNE (Sept. 14, 2011), <http://fortune.com/2011/09/14/the-power-struggle-for-wyomings-wind> (noting the wind industry has a lack of traction in Wyoming) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

249. See Kyle Roerink, *Wyoming Lawmakers Say State's Wind Power Industry Doesn't Need Tax Credit*, CASPER STAR-TRIBUNE (May 28, 2013) http://trib.com/business/energy/wyoming-lawmakers-say-state-s-wind-power-industry-doesn-t/article_cf96232e-88d2-552f-b55c-3e55e69bb97e.html ("Federal lawmakers and wind industry advocates are battling over the production tax credit that put wind energy on the map.") (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

250. See *id.* (reviewing differing opinions of the Wyoming congressional delegation and renewable energy advocates concerning wind-specific subsidies).

251. See *id.* (explaining the surprising move of Congress to extend the credit). "The federal renewable electricity production tax credit (PTC) is a per-kilowatt-hour tax credit for electricity generated by qualified energy resources and sold by the taxpayer to an unrelated person during the taxable year." *Renewable Electricity Production Tax Credit*, ENERGY.GOV, <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc> (last visited Nov. 10, 2014); see also I.R.C. § 45 (West 1992) (current version at I.R.C. § 45 (2013)) (enacting the one-year PTC extension) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

The PTC was renewed and expanded most recently by the American Recovery and Reinvestment Act of 2009 and the American Taxpayer Relief Act of 2012 (H.R. 6, Sec. 407) in January 2013. See *Renewable Electricity Production Tax Credit*, energy.gov, <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc> (last visited Nov. 10, 2014); see also American Recovery and Reinvestment Act of 2009, I.R.C. § 48 (West 2009) *amended by* Act of Jan. 2, 2013, I.R.C. § 48 (current version at 26 U.S.C.A. § 48 (2013)); see also American Taxpayer Relief Act of 2012, 26 U.S.C.A. §1. "The February 2009 legislation revised the credit by: extending the in-service deadline for most eligible technologies by three years (two years for marine and hydrokinetic resources); and allowing facilities that qualify for the PTC to opt instead to take the federal business energy investment credit (ITC) or an equivalent cash grant

lawmakers believe the industry outgrew its dependence on federal subsidies, and viewed the tax credit as corporate welfare.²⁵² Without state and federal incentives, renewable energy sources, particularly wind energy, face tremendous market obstacles to become a competitive energy source.²⁵³ The issues that wind energy proponents will confront are maintaining federal tax incentives and developing confidence and trust in wind energy for the landowners, who are wary of new energy projects.²⁵⁴

from the U.S. Department of Treasury.” *Renewable Electricity Production Tax Credit*, ENERGY.GOV, <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc> (last visited Nov. 10, 2014); American Recovery and Reinvestment Act of 2009, I.R.C. § 48 (West 2009) *amended by* Act of Jan. 2, 2013, I.R.C. § 48 (2013). “The availability of the cash grant option expired December 31, 2011, though the ITC may still be claimed for eligible projects.” *Renewable Electricity Production Tax Credit*, ENERGY.GOV, <http://energy.gov/savings/renewable-electricity-production-tax-credit-ptc> (last visited Nov. 10, 2014). “The ITC for PTC-eligible technologies is generally equal to 30% of eligible costs.” *Id.*

“The January 2013 legislation revised the credit by: removing “placed in service” deadlines and replacing them with deadlines that use the beginning of construction as a basis for determining facility eligibility; extending the deadline for wind energy facilities by one year, from December 31, 2012 to December 31, 2013; extending the permission for PTC-eligible facilities to claim the ITC through 2013 (also using the start of construction rather than placed in service date as a reference); and revising the definition of the term “municipal solid waste” to exclude ‘paper that is commonly recycled and which has been segregated from other solid waste.’” *Id.* “The definitional change for municipal solid waste applies to electricity produced and sold after the enactment date of the legislation (January 2, 2013) in taxable years ending after that date.” *Id.*

“In April 2013 the IRS issued guidance on how it will evaluate whether construction has commenced for the purpose of the year-end 2013 deadline.” *Id.* “The guidelines established two paths for meeting this benchmark, which are very similar to those used by the U.S. Department of Treasury under the former Section 1603 Grant in Lieu of Tax Credit program.” *Id.*

252. See Roerink, *supra* note 249 (explaining history of wind subsidies compared to history of subsidies in other energy industries).

253. See *id.* (noting future challenges in the industry that will be funded by taxpayers).

254. See *id.* (analyzing lawmaker’s arguments against federal subsidies); see also Liz Morrison, *Five Questions to Ask Before Signing a Wind Energy Lease*, (April 14, 2012), <https://www.wind-watch.org/documents/five-questions-to-ask-before-signing-a-wind-energy-lease/> (cautioning land owners to be aware of the legal and financial issues involved in wind agreements and even suggesting a landowner negotiation groups) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

C. Texas Wind Farms and the Condemnation Process

Texas, which is also a state with intensive oil and gas production, has the capacity to generate approximately 8,000 megawatts (MW), but existing transmission lines can carry approximately 4,500 MWs; therefore, plans are underway to construct 2,334 miles of lines to transport an additional 18,456 MWs.²⁵⁵ These various projects anticipate using over 56,000 acres.²⁵⁶

For wind energy to be a viable energy source in Texas, it is important to note the three-stage condemnation process in Texas.²⁵⁷ Past judicial interpretation of the Texas Property Code indicated that the condemnor must make a bona fide attempt to purchase the needed land in lieu of condemnation.²⁵⁸ The Texas Supreme Court modified this requirement.²⁵⁹ In the second stage, the condemnor petitions the court for the appointment of three disinterested landowners, better known as special commissioners, to conduct a hearing to determine damages from the proposed taking.²⁶⁰ Thereafter, the judge must provide each party a reasonable period to strike one of the three commissioners appointed by the judge.²⁶¹ The third stage is when either party

255. See Judon Fambrough, *Shock Treatment: Negotiating Transmission Line Easements*, TIERRA GRANDE 1 (Jan. 2010), available at <http://recenter.tamu.edu/pdf/1928.pdf> (explaining the need for additional transmission lines in Texas) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

256. See *id.* (anticipating the total size of the expansion project).

257. See *id.* at 1–3 (outlining the three-stage condemnation process in Texas).

258. See *id.* at 1 (explaining how courts have previously interpreted the first stage of the condemnation process); see also Tex. Prop. Code Ann. § 21.0113 (Vernon 2011) (codifying the bona fide offer requirement for condemnors).

259. See *Hubenak v. San Jacinto Gas Transmission Co.*, 141 S.W.3d 172, 196 (Tex. Sup. Ct. 2004) (holding that eminent domain proceedings require a single pre-suit offer describing only the property rights a party seeks to acquire through condemnation).

260. See Tex. Prop. Code, Ann. § 21.014 (Vernon 2011) (stating the process used to appoint special commissioners).

261. See *id.* (“If an appointee fails to serve as a commissioner or is struck, the judge must appoint a replacement.”).

appeals the matter to the court.²⁶² If neither party appeals, the process concludes.²⁶³ If appealed, landowners need both an attorney and an appraiser for representation.²⁶⁴ The attorney fees and the appraiser fees cannot be recovered as part of a judgment even when the landowners prevail unless the court orders the condemnor to pay cost because the condemnor failed to make a bona fide attempt to purchase.²⁶⁵

Texas law imposes four restraints on the condemnation process.²⁶⁶ “First, the taking must support some public purpose or bestow some public benefit.”²⁶⁷ After the U.S. Supreme Court approved condemnation solely for economic development in the *Kelo v. City of New London*²⁶⁸ decision, Texas voters limited this ruling, to some degree, with the passage of a constitutional amendment in 2009.²⁶⁹ “Second, the condemnor cannot take more land or property rights than are reasonably needed for the project.”²⁷⁰ Third, the condemnor is supposed to pay the landowner “just compensation” or fair market value for the property.²⁷¹ Fourth, the condemnor must adhere strictly to the

262. See *id.* § 21.018 (Vernon 2011) (delineating the process for an appeal from the commissioners’ findings).

263. See *id.* § 21.015 (Vernon 2011) (noting the adjournment of the hearing).

264. See *id.* § 21.019 (Vernon 2011) (granting an allowance to the property owner for reasonable and necessary fees incurred a for attorneys, appraisers, and photographers).

265. See *id.* § 21.047 (Vernon 2011) (listing the assessment of costs and fees).

266. See Fambrough, *supra* note 255, at 2–3 (outlining the four condemnation limitations).

267. *Id.*

268. 545 U.S. 469 (2005).

269. See Fambrough, *supra* note 255 at 2 (explaining the impact of the Texas constitutional amendment on the condemnation process); see also Tex. Const. Art. 1 § 17 (2009) (clarifying the term “public use”).

270. See Fambrough, *supra* note 255 at 2–3 (noting that the condemnor can purchase more than is needed in stage 1 as long as it is generally related to the project); see also Tex. Prop. Code, Ann. § 21.045 (Vernon 2011) (limiting the type of estate that can be condemned).

271. See Fambrough, *supra* note 255 at 3 (noting, however, that this may not be the case after Sept. 1, 2011); see also Tex. Prop. Code, Ann. § 21.045 (“No person’s property shall be taken, damaged or destroyed for or applied to public use without adequate compensation being made, unless by the consent of such person; and, when taken, except for the use of the state, such compensation shall be first made, or secured by a deposit of money . . .”).

three-stage condemnation process described in the previous section, which is known as the due-process limitation.²⁷² In accessing loss of value calculations, courts in the future should look at future losses along with environmental externalities.²⁷³ The impact of the transmission line on land value is difficult to calculate except on a case-by-case basis, but having certain standard rubrics for measuring economic and environmental damages will be critical for future calculations.²⁷⁴

D. Colorado's Thwarted Transmission Line

For nearly two decades, billionaire Louis Bacon had been assembling a portfolio of landscapes in New York, North Carolina and Colorado, quietly and painstakingly putting them into conservation easements, permanently saving them from further development.²⁷⁵ The Trinchera Ranch was his biggest purchase yet—and the \$175 million price tag made it, at the time, the most expensive residential sale in the history of the U.S.²⁷⁶ The ranch encompasses two conjoined properties—the 81,400-acre Trinchera portion and the 90,000-acre Blanca portion to the north.²⁷⁷ But shortly after buying Trinchera, Bacon realized he had a serious problem—a proposed energy transmission line, which was to be held up by a series of 150-foot-tall metal towers.²⁷⁸ Bacon learned the energy transmission line would cut through the Blanca portion of the ranch and in front of the signature “viewshed” of

272. See Fambrough, *supra* note 255, at 3 (noting the final stage in the condemnation process); see also Tex. Prop. Code, Ann. §§ 21.011–22 (Vernon 2011) (outlining the due process procedure into three stages).

273. See Fambrough, *supra* note 255, at 4 (stating that future damages are not covered in compensation for damages).

274. See *id.* at 4–5 (describing issues previously overlooked in negotiating easements and potential issues that arise in calculating compensation for damages).

275. See Burke, *supra* note 6 (“While [Bacon’s] fellow billionaire land conservationists, John Malone and Ted Turner—the largest and second-largest individual landowners in the country, respectively—were making headline-grabbing purchases of literally millions of acres of land, Bacon was working, typically, under the radar, patching together smaller parcels.”).

276. See *id.* (noting the scale of the purchase from the Forbes family).

277. See *id.* (describing the size of Bacon’s land purchase).

278. See *id.* (highlighting the invasive nature of the proposed energy transmission line).

the San Luis Valley.²⁷⁹ Xcel Energy and Tri-State Generation & Transmission entered into a joint venture for this project, and portrayed the project as a “green” line that would carry solar energy.²⁸⁰ But Bacon hired a team of transmission line experts, lawyers and a seasoned public relations firm to oppose the line’s construction.²⁸¹ Bacon argued that the energy companies had cheaper alternatives for existing lines, that Xcel had already met its renewable energy mandate with the state and that the line, which had not even gone through an environmental impact study, would, in fact, most likely not even carry any “green” energy at all.²⁸² Xcel announced that it was leaving the project after battling for three years.²⁸³ Tri-State has not officially given up, saying it was exploring alternatives on existing lines.²⁸⁴

Bacon announced that he was putting the 90,000 acres of the Blanca portion of his ranch into a conservation easement donated to the U.S. Fish & Wildlife Service.²⁸⁵ Combined with the

279. *See id.* (describing the impact of the proposed transmission line).

280. *See id.* (explaining the business venture that led to the proposed transmission line).

281. *See id.* (noting the expertise of the team Bacon created to fight the proposed line).

282. *See id.* (emphasizing the energy companies’ greed behind the project, detailing a double digit rate of returns with no interest rates). “[T]he energy companies fought back, painting Bacon as a Nimby (not in my backyard), a rich Easterner who wanted to dictate the energy needs of Colorado.” *Id.* Placed on the defensive, Bacon fired back in an editorial in *The Denver Post*. *Id.* He got out the story of his conservation background, of the tens of millions he had donated to environmental groups and of his nearly two decades’ worth of work putting land into conservation easements. *Id.*

283. *See id.* (declaring that Bacon’s pressure had earned him public sentiment and had defeated the project).

284. *See id.* (highlighting that these alternatives were the very ones that Bacon and his team proposed).

285. *See* Bruce Finley, *90,000 Acres Offered for National Protected Area*, DENVER POST (Jun. 15, 2012), http://www.denverpost.com/ci_20861904/90-000-colorado-acres-offered-national-protected-area (announcing the agreement between the U.S. Department of the Interior and Louis Bacon for an easement to provide public protection of private land) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT); *see also* Press Release, U.S. Dep’t of Interior, *America’s Great Outdoors: Salazar, Ashe Announce Historic Conservation Easement in Sangre de Cristo Mountains* (Jun. 15, 2012), *available at* <http://www.doi.gov/news/pressreleases/AMERICAS-GREAT-OUTDOORS-Salazar-Ashe-Announce-Historic-Conservation-Easement-in-Sangre-de-Cristo-Mountains.cfm> (summarizing Bacon’s intentions for the

approximately 75,000 acres on the Trinchera portion already preserved, Bacon was creating “the largest single conservation easement” in the state of Colorado.²⁸⁶ This conservation easement would be one of the largest easements the federal government has secured—and the largest parcel the Obama administration has protected in its campaign to preserve pristine landscapes for wildlife and recreation.²⁸⁷ The easement would make the construction of a new transmission line extremely difficult to achieve.²⁸⁸ The easement would be in the hands of a federal government entity raising the bar even higher.²⁸⁹ Any new construction on the land would require an unprecedented “eminent domain” ruling.²⁹⁰ Bacon’s campaign to conserve his signature viewsheds and maintain control of his property signals a possible trend for large landowners to overcome eminent domain proceedings for transmission lines.²⁹¹

E. Saudi Arabia’s Solar Energy Proposal

Saudi Arabia is seeking to scale up its renewable energy resources, because it could likely become an oil importer by 2030, if it does not reduce its energy demand.²⁹² The world’s largest oil

proposed Sangre de Cristo Conservation Area to protect a total of 172,000 acres) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

286. See Press Release, *supra* note 285, (quoting Secretary of Interior Ken Salazar) (emphasizing Bacon’s commitment to preservation).

287. See *id.* (noting the influence of President Obama’s America’s Great Outdoors initiative on the U.S. Department of the Interior’s 21st century conservation agenda).

288. See Burke, *supra* note 6 (explaining how Bacon’s battle for conservation of this land was over).

289. See *id.* (articulating the heightened requirements for overcoming the easement).

290. See *id.* (indicating the consequences of a conservation easement).

291. See *id.* (describing the spectrum of billionaires that carry the burden of land sustainability).

292. See Katherine Cunningham, *Harnessing the Power of the Sun: Saudi Arabia Builds Massive Solar Farm*, OUR PLANET (May 7, 2013), <http://ourplanet.infocentral.state.gov/harnessing-the-power-of-the-sun-saudi-arabia-builds-massive-solar-farm/> (describing Saudi Arabia’s need for renewable energy) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT). Eighty percent of Saudi Arabia’s exports and revenue come from the production and sale of hydrocarbon resources. *Id.*

producer is diversifying its energy sources by utilizing the power of the sun.²⁹³ Saudi Arabia receives about 105 trillion-kilowatt hours of sunlight a day, which equates roughly to ten billion barrels of crude oil in energy terms.²⁹⁴ Scientists at the King Abdulaziz City for Science and Technology are working on projects to make solar power generation more economically feasible.²⁹⁵ The motivation for renewable energy development in Saudi Arabia is primarily driven by economics.²⁹⁶ The government and project developers plan to free up larger reserves of oil and gas for international sales rather than for use domestically.²⁹⁷ The price of oil is expected to rise significantly in the coming decades, and such a move makes sense from an economic point of view.²⁹⁸ With a \$109 billion solar energy investment, the country hopes to develop a solar industry that can provide one-third of its electricity by 2032.²⁹⁹

The King Abdullah City for Atomic and Renewable Energy program, established in April 2010, laid out an “aggressive” plan to enhance the country’s renewable and nuclear energy

293. See *id.* (detailing Saudi Arabia’s new solar farm project).

294. See Information Office of the Royal Embassy of Saudi Arabia, *About Saudi Arabia: Solar Energy*, ROYAL EMBASSY OF SAUDI ARABIA WASHINGTON, DC, (Nov. 10, 2014, 4:00 PM), http://www.saudiembassy.net/about/country-information/energy/solar_energy.aspx (explaining the benefits of such intense sun in such a remote location) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

295. See *id.* (listing programs that focus on utilizing solar energy).

296. See Cunningham, *supra* note 292 (reviewing Saudi Arabia’s plan to create a solar energy industry).

297. See *id.* (outlining Saudi Arabia’s plan to reduce domestic consumption of oil in light of their growing electricity needs).

298. See Mark Finley, *The Oil Market to 2030—Implications for Investment and Policy*, 1 ECON. OF ENERGY & ENVTL. POLICY 25, 36 (“[T]he policies of countries that own the majority of the resources are likely to constrain the pace of development, leaving high-coast supply options viable”).

299. See Esther Tanquintic-Misa, *Saudi Arabia Pushes Renewable Energy Programs, Wants to Become Solar-Powered Efficient and Capable by 2032*, INT’L BUSINESS TIMES (July 4, 2013), available at <http://au.ibtimes.com/articles/486391/20130704/saudi-arabia-renewable-energy-solar-power.htm#.UdiSeztwo6I> (analyzing Saudi Arabia’s plan to install 23.9 GW of renewable power by 2020 capacity and 54.1 by 2032) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

resources.³⁰⁰ Despite delays, the Saudi Arabian government is serious about its renewable energy goals, in order to diversify its economy and encourage a younger, growing population to compete in a global marketplace.³⁰¹ In 2011, the Saudi Electricity Company controlled roughly fifty-one GWs of generating capacity, more than doubling its total in 2000, and is projected to grow another fifty percent to seventy-seven GWs by 2020, signaling the seriousness of solar energy projects.³⁰² What is interesting in the case of Saudi Arabia is that the push for solar energy is catalyzed by economic concerns, rather than environmental or energy demand issues.³⁰³ Surprisingly, given the government's forceful stance on the development and deployment of solar energy, few laws or regulations have been enacted to facilitate this energy transition.³⁰⁴ It is the solar energy advocates and project developers themselves that have advocated solar energy initiatives through public-private partnerships.³⁰⁵

For instance, the Electricity and Cogeneration Regulatory Authority, which is responsible for regulating the electricity and water desalination industries in Saudi Arabia, was working on

300. See James Montgomery, *Inside MENA Countries' Solar Energy Plans*, RENEWABLEENERGYWORLD.COM, (Jan. 15, 2013), <http://www.renewableenergyworld.com/rea/news/article/2013/01/inside-mena-countries-solar-energy-plans> (describing the King Abdullah City for Atomic and Renewable Energy program) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

301. See *id.* ("It's moving cautiously, carefully navigating domestic energy needs vs. diversifying its economy, all in the light of the Arab Spring movement . . .").

302. See *id.* ("If Saudi Arabia doesn't curb its energy demand, institute energy efficiency requirements, and diversify its electricity generation profile, it could become an oil importer by 2030.").

303. See *id.* (discussing that Saudi Arabia considers renewable energy sources as a means to diversify its economy).

304. See Norton Rose Fulbright, *Renewable Energy in Saudi Arabia*, (Jan. 2012), *available at* <http://www.nortonrosefulbright.com/knowledge/publications/61454/renewable-energy-in-saudi-arabia> ("Currently, Saudi Arabia does not have a formal policy framework for the development and regulation of a renewable energy market. The Electricity Law does not cover renewable energy sources.") (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

305. See *id.* ("A key goal of Saudi's energy policy is to encourage the participation of private sector investment.").

developing a National Renewable Energy Policy.³⁰⁶ Incidentally, the National Renewable Energy Law was expected in 2011, but has not been completed.³⁰⁷ Key elements of the national policy included: a restructuring plan for the electricity industry to end vertical integration and create non-discriminatory independent market operators; private-sector participation in the generation sector; promotion of the “Parallel Market” that permits large consumers to obtain their electricity directly from the suppliers of their choice on the basis of mutually agreed prices and other commercial terms; necessary tariffs for electricity; and key performance indicators for the electricity industry.³⁰⁸

Published reports of the draft proposal suggest that the following features are being considered: a centralized competitive procurement process; promotion of the use of renewables in remote areas through the creation of a separate procurement process for renewable energy serving off-grid locations; regulations, rules, and procedures that facilitate, rather than act as barriers to, the development of renewables; a feed-in tariff so that the electricity tariff would be set at a rate equivalent to conventional generation with the shortfall charged to the government as part of a Balancing Fund; power purchase agreements for terms of at least twenty years; power purchase agreements that do not include capacity payments, but rather, are output based; green certificates and a voluntary mechanism for trading such certificates; priority grid dispatch rules for renewables; and requiring renewable energy providers to remain in compliance with existing ERCA license requirements.³⁰⁹

In the capital city of Riyadh, a solar farm consisting of 12,684 solar panels was completed in early 2013.³¹⁰ By 2032, Saudi Arabia hopes to produce sixteen GWs of solar power

306. *See id.* (discussing energy and market related issues under consideration by ERCA in Saudi Arabia).

307. *See id.* (“[T]here have not been any further announcements in this regard.”).

308. *See id.* (reciting issues that ERCA is considering aside from renewable energy).

309. *See id.* (discussing the work of ERCA in creating a national regulatory framework for renewable energy in Saudi Arabia).

310. *See* Cunningham, *supra* note 292 (“[W]e hope solar energy will help meet a growing share of our electricity needs—and even help us create a thriving solar industry and expertise in the Kingdom.”).

(photovoltaic) and twenty-five GWs of concentrated solar power, allowing the country to reduce domestic consumption of oil, decrease its release of greenhouse gases into the atmosphere, and even export electricity to European countries.³¹¹ These ambitious plans for solar energy will require equipping the energy grid to handle the new resource, in addition to addressing integration and cost issues.³¹² “[E]ducation of local governments and solving local integration problems will provide the solution.”³¹³ The local conditions in the MENA region are different than European countries, where issues such as snow loads may not play as big of a role as generation and demand peak differences.³¹⁴ The biggest challenge, not only in Saudi Arabia, but also in the Middle East and North Africa, is the lack of a photovoltaic-specific regulatory framework.³¹⁵ Project developers have been working with investors via public and private partnerships to provide a better insight into technology and regulatory issues.³¹⁶ Compared to the United States, Saudi Arabia has more political motivation and financial resources to forge ahead with solar energy projects and transmission lines, but lacks a regulatory framework and

311. See *id.* (discussing incentives for generating renewable energy beyond domestic consumption).

312. See Shamsiah Ali-Oettinger, *The Solar Catalyst*, PV MAGAZINE, (April 2013), http://www.pv-magazine.com/archive/articles/beitrag/the-solar-catalyst_100010771/572/#axzz2gWHBZz7Y (“Reports state that with a growing domestic energy demand of around 7% per year, national consumption is likely to double in a decade. This would inevitably lead to Saudi Arabia’s dethroning as exporter of fuels.”) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT). Saudi Electricity Company (SEC) has awarded local contractors three deals totaling SAR 986.7 million (US\$263 million) to boost power grids in Makkah, Jeddah and Madinah in the western region. *Id.* The first contract, worth SAR 194 million (US\$51.7 million), is for setting up 380 kV transmission lines to link with the Al-Salam transformer in Madinah, while the second deal, costing SAR 530 million (US\$141 million), is to establish 380 kV capacity of central cables in Makkah. *Id.* The last contract for 380 kV of underground central cables in Jeddah was awarded for SAR 262.7 million (US\$70 million). *Id.*

313. *Id.*

314. See *id.* (discussing differences in integrating solar energy into power grids in new geographic areas, as compared to regions that have solar integrated grids already).

315. See *id.* (discussing some concerns of introducing solar energy into Saudi Arabia’s energy infrastructure).

316. See *id.* (explaining how to mitigate against problems associated with expanding the solar grid).

technological know-how, which it is attempting to overcome through public-private partnerships and international collaboration.³¹⁷

VI. Normative Implications of the Reconceptualized Energy Easement

A. Improved Vegetative Management Techniques

The primary objective of vegetative management techniques is to mitigate risks associated with power lines, such as fires, power outages, and other public safety concerns.³¹⁸ The failure of proper UVM techniques was evident on August 14, 2003, when a massive, unplanned power outage struck the Northeastern United States and Canada, affecting an estimated fifty million people.³¹⁹ The U.S.-Canada Power Outage Task Force found that inadequate tree trimming in Ohio was one of the initial causes of the blackout, which ultimately spread through eight states and the province of Ontario.³²⁰ Because most electrical infrastructure is maintained and regulated as a public service on land that is government-owned or expressly acquired for public use, actions should be taken to ensure reliability are for the benefit of the greater public.³²¹ Considering reliable access to electricity is “a right common to the general public,” it begs the question whether the encroachment of vegetation or the keeping of hazardous adjacent trees “unreasonably interferes” that right.³²²

317. See *id.* (discussing solar technology in Saudi Arabia as a critical need).

318. See U.S.-CANADA POWER SYS. OUTAGE TASK FORCE, FINAL REPORT ON THE AUGUST 14, 2003 BLACKOUT IN THE UNITED STATES AND CANADA: CAUSES AND RECOMMENDATIONS 1 (2004), available at <http://energy.gov/sites/prod/files/oeprod/DocumentsandMedia/BlackoutFinal-Web.pdf> (explaining why the task force was created) (on file with the WASHINGTON AND LEE JOURNAL OF ENERGY, CLIMATE, AND THE ENVIRONMENT).

319. See *id.* (stating when and where the blackout occurred).

320. See *id.* at 18–19 (reciting the causes of the blackout).

321. See Tomasovic, *supra* note 202, at 48 (“[P]ublic access to reliable electric . . . has equal, if not greater, importance as traditionally contemplated public rights to use an unpolluted public bathing beach, to fish from an unpolluted stream, or to travel on an unobstructed public highway.”).

322. See RESTATEMENT (SECOND) OF TORTS § 821B(1) (1979)

Hazardous trees and incompatible vegetation should be addressed in a statute or regulation that recognizes the authority of a certified utility or accompanying government arborist to issue an abatement order when he or she determines vegetation to constitute a public nuisance.³²³ If a customer refuses, the official would have the discretion to issue a citation that explains the landowner's right to appear in an administrative proceeding to determine whether the hazard tree or incompatible vegetation actually constitutes a public nuisance subject to abatement.³²⁴ While the landowner who receives a citation may litigate his interests, the proceeding would be governed by objective, administrative criteria.³²⁵ Alternatively, a hazardous tree ordinance could protect public health and safety.³²⁶ Enhanced UVM techniques could be legislated and enacted at the municipal, county, and state levels.³²⁷ The extent and scope of these techniques hinges on the risk of fires, lightning strikes, tornadoes, hurricanes, and various other events that may impact vegetation near power lines.³²⁸

B. Siting and Conservation Easements

At the national level, the Energy Policy Act of 2005 addresses the siting of interstate electric transmission facilities by directing the Secretary of Energy to periodically conduct a nationwide study of electric transmission congestion.³²⁹ The Act

(defining the standard for a finding of public nuisance).

323. See *id.* §§ 202, 821C(2)(b) (1979) (demonstrating that current nuisance law does not explicitly accommodate the hazards at issue).

324. See Tomasovic, *supra* note 202, at 49–50 (describing the process of public nuisance litigation, as customer refusals are followed administrative or low-level judicial proceeding).

325. See *id.* (explaining that this standard encourages fewer ill-founded customer refusals).

326. See RESTATEMENT (SECOND) OF TORTS §§ 202, 203 (1965) (detailing the current, non-inclusory, standard of public nuisance in relation to potential regulations).

327. See Tomasovic, *supra* note 202, at 2 noting that UVM techniques could be integrated with long-standing past practices).

328. See *id.* at 11 (noting the critical need for vigilant UVM techniques to mitigate fire risks).

329. See Energy Policy Act of 2005, 16 U.S.C.S. § 824p (2008) (“Not later than [one] year after August 8, 2005, and every [three] years thereafter, the Secretary of Energy . . . in consultation with affected States, shall conduct a

mandates that the Secretary consult with affected states when conducting these studies and provide interested parties with an opportunity to offer alternatives and recommendations.³³⁰ Generally, land encumbered by conservation easements is a likely target for condemnation because it is largely undeveloped, as condemning authorities generally prefer undeveloped land due to the political difficulties involved in implementing public works projects in populated areas.³³¹ If condemning authorities do not have to accord any weight to the protected status of easement-encumbered land when considering condemnation alternatives, there is a risk of subverting the strong public policy in favor of using conservation easements as a land protection tool through the condemnation process.³³² However, a blanket prohibition on the condemnation of easement-encumbered land would be unwise given that there will be cases where the public interest clearly warrants the taking of such land.³³³

If the terms of a conservation easement can be read to exclude the development of wind farms, transmission lines, and so forth, then as the amount of acreage burdened by conservation easement increases, the amount of acreage available for renewable power generation decreases.³³⁴ “Therefore, the competing policy goals of preserving open space and developing renewable energy resources will clash, particularly as

study of electric transmission congestion”).

330. See *id.* at § 824p(a)(2) (“[S]ecretary shall issue a report, based on the study, which may designate any geographic area experiencing electric energy transmission capacity constraints or congestion that adversely affects consumers as a national interest electric transmission corridor”).

331. See Nancy McLaughlin, *Condemning Open Space: Making Way for National Interest Electric Transmission Corridors (Or Not)*, 26 VA. ENVTL. L.J. 399, 427 (2008) (concluding that conservation easements are a likely target for condemnation).

332. See *id.* (discussing the strength of conservationist policy in relation to other public works).

333. See *id.* (balancing the interests of construction versus conservation, concluding that the debate is unfinished and implicates the livelihood of protected lands).

334. See Derrick Fellows, *Kelo, Conservation Easements, and Forever: Why Eminent Domain is Not a Sufficient Check on Conservation Easements’ Perpetual Duration*, 35 WM. & MARY ENVTL L. & POL’Y REV 625, 626 (2011) (explaining that conservation easements will likely conflict with future land uses as societal goals, patterns of living, and scientific knowledge change over time).

governments increasingly mandate renewable energy standards (also known as renewable portfolio standards, “RPS”).³³⁵ Eminent domain can be used to aid the development of renewable energy sources when poorly placed conservation easements might otherwise impede such development.³³⁶

C. *Small Scale Energy Projects*

Small-scale energy installations that generate power for a limited area would reduce the need for longer transmission lines in areas where renewable energy is available from sources like onshore wind, offshore wind, solar energy, and tidal energy.³³⁷ The end users of large installations include only those persons who live within the area that can be reached by transmission lines.³³⁸ “While the growing number of large installations may signal that the market has begun to embrace the economies of scale, the need for small installations remains.”³³⁹ When it comes to the environment, individual solar collectors have a smaller negative impact than do large installations, and are more efficient because they are installed near the end user.³⁴⁰

D. *Federalism and State’s Rights*

Electricity generated by offshore projects—even projects sited in federal waters—must generally be transmitted to shore for distribution and consumption, crossing state-jurisdictional coastal zones.³⁴¹ “This scenario creates a significant role for states in reviewing and permitting the transmission cables needed to

335. *Id.* at 627.

336. *See id.* at 626 (explaining the role that eminent domain plays when conservation easements frustrate an essential public need).

337. *See* Sara Bronin, *Solar Rights*, 89 B. U. L. REV. 1217, 1224 (2009) (explaining that small scale installations can serve end users that are not reachable by large solar installations, allow individuals to directly benefit from their investment, and are installed near the user).

338. *See id.* (“Many large installations are concentrated in the South and the West, and do not serve . . . other parts of the country.”).

339. *Id.*

340. *See id.* (discussing the benefits of individual solar collectors).

341. *See* Todd Grisct, *Harnessing the Ocean’s Power: Opportunities in Renewable Ocean Energy Resources*, 16 OCEAN & COASTAL L.J. 395, 416 (2011) (discussing the role states must play in off-shore generated power).

carry the power produced at sea to consumers on land, both in leasing subsurface rights for laying cable and in reviewing the utility aspects of the proposed transmission infrastructure.”³⁴² Even where a state’s authority is limited to reviewing the onshore transmission development associated with an offshore energy project, in practice, states’ evaluations of these transmissions are often cognizant that the transmission and generation components are each integral to the fate of the project.³⁴³

However, due to variation in state policies, regional energy prices, existing regional transmission, transportation infrastructure, regulatory certainty, and opportunities for job growth and economic development, each state emphasizes different categories.³⁴⁴ Accordingly, states will have to construct rules and regulations based on unique developmental goals.³⁴⁵

Another consideration is federalism, specifically in the context of state sovereignty.³⁴⁶ For example, Georgia currently prohibits local governments from regulating land acquisitions by public utilities.³⁴⁷ Because of the nature of a public utility, and its benefits, such prohibitions should remain.³⁴⁸ It would be difficult

342. *Id.*

343. *See id.* at 416 (discussing the costs and benefits of state jurisdiction in the context of harvesting energy offshore).

344. *See* Erica Schroeder, *Turning Offshore Wind On*, 98 CALIF. L. REV. 1631, 1645 (2010) (describing some of the different factors states evaluate when exerting jurisdiction).

345. *See* Griset, *supra* note 341, at 415 (stating that each state has broad discretion to regulate projects).

346. *See* Amanda Gaddis, *Taking Away Local Control: The Risks of Regulating a Public Utility’s Eminent Domain Authority*, 2 J. MARSHALL L. J. 153, 153–54 (2009) (explaining the difficulty of allowing local governments to approve condemnations).

347. *See generally* *Rabun County v. Ga. Transmission Corp.*, 575 S.E.2d 474 (Ga. 2003) (three year moratorium on construction of high voltage power lines); *Cobb County v. Ga. Transmission Corp.*, 578 S.E.2d 852 (2003) (seven and one-half month moratorium on construction of above-ground high voltage power lines); *City of Buford v. Ga. Power Co.*, 581 S.E.2d 16 (Ga. 2003) (one year moratorium on electric power substations); *Forsyth County v. Ga. Transmission Corp.*, 632 S.E.2d 101 (Ga. 2006) (overlay zoning district required public utility to obtain approval from county before constructing high voltage transmission line).

348. *See Gaddis, supra* note 346, at 154 (“When a local government regulation deprives the public utility of the statutory use of property it has acquired, the government risks effecting a taking of the utility’s property without just compensation.”).

for a local government to regulate a public utility's use of land without committing a taking.³⁴⁹ "Although citizens may be upset that their property is taken or that unsightly equipment may be placed in their neighborhood, regulations by a local government raise far greater concerns . . ." ³⁵⁰ Accordingly, state and local governments should consider the implications of such regulations before acting.³⁵¹

E. Protection for Project Developers

"[E]xisting common law is insufficient to protect either the developer or the adjacent landowners."³⁵² Despite private controls, such as easements, covenants, and nuisance law, available to developers, the costs of negotiation and the uncertainty of the outcome may undermine their effectiveness.³⁵³ In fact, the lack of a bright-line rule and its potential for future litigation may be sufficient to deter potential wind or solar developers from pursuing development.³⁵⁴ Therefore, access to protection may depend upon legislation and future regulations.³⁵⁵ Legislators should make this area of law more clear and consistent in order to foster and facilitate wind and solar energy development.³⁵⁶

Because of the need to incentivize development, it is improper to examine the historical natural resource development model, which emphasizes creating and protecting resource

349. See *id.* at 154 (explaining that the just compensation prong of eminent domain might not be met).

350. *Id.* at 182

351. See *id.* (concluding that local governments being allowed to enact regulations might seem plausible, but could potentially deprive a public utility of its property rights by taking property without just compensation).

352. Megan Hiorth, *Are Traditional Property Rights Receding with Renewable Energy on the Horizon?*, 62 RUTGERS L. REV. 527, 557 (2010).

353. See Kim R. York & Richard L. Settle, *Potential Legal Facilitation or Impediment of Wind Energy Conversion System Siting*, 58 WASH. L. REV. 387, 410–11 (1983) (explaining that sufficient access to wind may depend on public regulation through traditional local land use controls).

354. See Hiorth, *supra* note 352, at 557 (noting that common law is insufficient to protect either the developer or adjacent land owners).

355. See *id.* (explaining that new regulation might be the protection against the deterrent effect of litigation against developers).

356. See *id.* (discussing the balance of environmental and economic interests).

development rights, as the obvious path to renewable energy development.³⁵⁷ “But efforts to encourage renewable energy must be placed in the larger context of both climate change and the development of the pollution control model, and its present-day overlay on natural resource development law.”³⁵⁸

VII. Conclusion

The tension between property rights and public utility interests will not abate and will grow more intense over time due to land scarcity, limited energy resources, and increased population growth. One of the means to improve relations between landowners and electricity providers is for an enhanced legal regime that accounts to energy access and energy itself as a right. The goals of the United Nations Sustainable Energy for All and President Obama’s fluid climate change plan can be attained through balancing competing interests for land and electricity. Civilizations rely on water, air, and land the same way it depends on energy for fuel and electricity. The future belongs to those who can harness natural resources in a sustainable manner and with the lowest carbon footprint. The efficient and effective placement of power lines and pipeline easements adds to the overall sustainability of the broader energy infrastructure landscape.

357. See Alexandra Klass, *Property Rights on the New Frontier: Climate Change, Natural Resource Development, and Renewable Energy*, 38 *ECOLOGY L.Q.* 63, 118 (2011) (concluding that efforts to encourage renewable energy must be placed in the larger context of climate change).

358. *Id.* at 118.