

ENERGY AND EMINENT DOMAIN

James W. Coleman^{*} & Alexandra B. Klass^{**}

This Article examines the growing opposition to the use of eminent domain for energy transport projects such as oil pipelines, gas pipelines, and electric transmission lines. Such projects were protected from the state legislative reforms that restricted eminent domain following the Supreme Court's controversial decision in Kelo v. City of New London in 2005 but are now under increased scrutiny. This Article evaluates why U.S. energy transport projects have become so controversial and suggests how states and the federal government should evaluate the need for eminent domain for these projects and enact appropriate reforms. We first detail the significant changes in the U.S. energy landscape that began in approximately 2007, just after the post-Kelo reforms had run their course. We then consider the potential consequences of the current backlash against eminent domain for energy transport projects. We suggest ways for policymakers, advocates, and others to reconsider the role of Kelo-style arguments in the context of energy transport projects and enact reforms that will allow critical energy projects to be built in a manner that better accommodates impacted communities and provides additional procedural rights and compensation for landowners. Such reforms can include enhanced compensation for energy project-related easements taken by eminent domain, creating a presumption in favor of limited term easements, new option rights for landowners, and expedited judicial review of public use determinations. In evaluating these reforms, we draw on foundational property theories both supporting and criticizing current judicial approaches to public use and just compensation.

^{*} Associate Professor, SMU Dedman School of Law. Eric Biber, David Bookbinder, John Echeverria, Dan Farber, Rob Glicksman, John Lovett, Tim Mulvaney, LeRoy Paddock, Michael Pappas, Gideon Parchomovsky, Ari Peskoe, Richard Pierce, David Raskin, J.B. Ruhl, Jim Rossi, Larry Shapiro, Ilya Somin, Fenner Stewart, Joseph Tomain, Hannah Wiseman, Katrina Wyman, and Joel Zipp provided extremely helpful comments on earlier drafts of this Article. Nicholas Redmond provided valuable research support.

^{**} Distinguished McKnight University Professor, University of Minnesota Law School.

TABLE OF CONTENTS

I. Introduction.....	1
II. Eminent Domain and Public Use In the Shadow of <i>Kelo</i>	4
III. The Fracking Revolution and U.S. Pipeline Expansion.....	11
A. <i>The U.S. Oil and Gas Boom</i>	12
B. <i>The Expansion of Oil and Gas Infrastructure</i>	14
C. <i>Increased Opposition to Use of Eminent Domain for Pipelines</i>	16
1. Natural gas pipelines	18
2. Oil pipelines	21
IV. The Growth of Renewable Energy and the Need for Electric Transmission Infrastructure	24
A. <i>The U.S. Electric Grid</i>	25
B. <i>Transmission Expansion Needs for Increased Renewable Energy Integration into the Grid</i>	29
C. <i>Regulatory Approval of Transmission Lines and Eminent Domain</i>	31
D. <i>Transmission Line Eminent Domain as a “Private Taking”</i>	33
V. Eminent Domain Reform for Energy Projects.....	42
A. <i>Theoretical Justifications for Eminent Domain</i>	42
B. <i>Justifications for Eminent Domain for Energy Projects</i>	45
C. <i>Revised Policies for Eminent Domain for Energy Projects</i>	48
1. Redefining “public use” for energy transport projects	49
2. Addressing neighboring state barriers to energy projects	51
3. Policy experimentation with enhanced compensation and procedural rights	52
VI. Conclusion.....	58

I. INTRODUCTION

In 2005, the U.S. Supreme Court decided *Kelo v. City of New London*,¹ triggering a backlash known as the “*Kelo* Revolution” throughout the country. Under the Fifth and Fourteenth Amendments to the U.S. Constitution, private property may only be taken for “public use” and with “just compensation.”² In *Kelo*, a five-justice majority of the Supreme Court held that the City of New London could use eminent domain to acquire Suzette Kelo’s home, along with other nearby properties, to assemble land to be part of a larger, public-private economic redevelopment project that included a new research facility for Pfizer Corporation. The Court found that the use of eminent domain for the redevelopment project satisfied the Fifth Amendment Takings Clause, holding that the project’s goal of increasing the city’s tax base and creating jobs was itself a “public purpose” which met the Constitution’s “public use” requirement. The decision rested on a long line of Supreme Court cases that had created an expansive definition of public use. But it caused a national backlash: over 40 states amended their statutes and constitutions to limit “economic development takings” under state law.

One notable aspect of these post-*Kelo* reforms was their focus on alleged *government* abuse of eminent domain authority. The economic development takings targeted by reformers were often referred to derogatorily as “private takings,” because once the government took property from private owners, it then transferred the properties to a private developer or corporation. But the post-*Kelo* reforms in the states were careful not to restrict another kind of equally common “private taking”—eminent domain actions brought by private companies to build oil pipelines, gas pipelines, electric transmission lines and other types of infrastructure for energy transport and natural resource development that had been enshrined in state statutes and constitutions for decades.

The Institute for Justice—the advocacy group that represented Suzette Kelo and spearheaded the efforts to “stop eminent domain abuse”—is a libertarian group with a mission to limit the role of government in civil society, including the use of eminent domain.³ Other groups involved in the *Kelo* revolution were similarly focused on reforming economic

¹ 545 U.S. 469 (2005).

² U.S. CONST. amend. V (“nor shall private property be taken for public use, without just compensation.”); *Hawaii Housing Authority v. Midkiff*, 467 U.S. 229, 245 (1984).

³ See Institute for Justice, *Private Property*, <https://ij.org/issues/private-property/> (“The Institute for Justice is dedicated to protecting the right of every American to own and use his or her property freely. Respecting the right of private property is essential to a just and prosperous society. But government at all levels—local, state and federal—routinely infringe on these rights.”).

development takings by the government.⁴ By contrast, eminent domain actions to build energy projects are virtually always brought by private parties—oil companies, gas companies, electric utilities, and the like—using authority delegated by state legislatures or Congress. These types of takings never became part of the narrative surrounding alleged abuses of eminent domain.

By 2007, two years after the *Kelo* decision, most state legislatures and voters had completed their post-*Kelo* reforms. But that same year a new revolution had just begun in the domestic energy arena. Beginning in 2007, technological developments in directional drilling and hydraulic fracturing ushered in the “fracking revolution,” resulting in a huge increase in domestic shale oil and gas development in Texas, North Dakota, Pennsylvania, and other states. At approximately the same time, a convergence of new technologies, tax incentives, and state renewable energy policies prompted a massive increase in the production of utility-scale on-shore wind energy. These new sources of fossil fuels and renewable electricity required new oil pipelines, gas pipelines, and electric transmission lines for transport to market. And these new energy transport projects, in turn, required eminent domain: otherwise each landowner along a proposed pipeline or power line route could, in theory, try to hold out for the entire economic surplus of the project.⁵ Thus began a massive build out in energy transport infrastructure that continues to this day and, with it, new coalitions of landowners and interest groups to oppose the use of eminent domain for these projects.

With regard to oil and gas pipelines, environmental groups, landowners, and property rights advocates joined forces to oppose these new projects, albeit for different reasons, and began to use *Kelo*-reform rhetoric in their arguments. As for electric transmission lines, many environmental groups have favored these projects for their ability to increase the nation’s use of renewable energy and displace fossil fuels in the electricity sector. But these projects remain controversial among landowners and some local environmental groups who say they are not a “public use.” Thus, with regard to both types of projects, the post-*Kelo* reform movement may be catching a second wind that will expand it to combat the energy transport projects it previously ignored.

⁴ See, e.g., *About Pacific Legal Foundation*, <https://pacificlegal.org/about/> (“Governments at all levels undermine liberty by passing laws that interfere with peoples’ right to freely associate and express themselves, acquire and use property, or earn an honest living. It is daunting for the average person to defend those rights against the government, with its power and access to substantial resources. That’s where we step in.”); Pacific Legal Foundation, *Property Rights*, <https://pacificlegal.org/cases/> (describing group’s representation in property rights litigation against governmental entities).

⁵ Amnon Lehavi & Amir N. Lich, *Eminent Domain, Inc.*, 107 COLUM. L. REV. 1704, 1729 (2007).

This Article examines what has changed since 2007 to bring energy takings into the spotlight. These changes include the fracking revolution that began in 2007 and the oil and gas industry's major expansion of pipeline infrastructure in the years since then to bring these new fossil fuel resources to domestic and international markets; the rapid development of onshore utility-scale wind energy that requires long-distance transmission lines to integrate renewable energy into the electric grid; the successful use of social media to create widespread, national opposition to energy transport projects like the Keystone XL and Dakota Access pipelines; and the ability of property rights advocates and environment groups to find common ground in opposing many of these projects, thus strengthening the lobbying power, attorney resources, and grassroots opposition to such projects. In this Article, we focus not only on the causes of the current backlash against eminent domain for energy projects, but the potential consequences.

We are concerned that advocates' arguments for broad limits on the use of eminent domain for energy projects may result in reforms that will not meet environmental and economic goals or, in some cases, even the goals of the advocates. For those states, advocacy groups, and members of the public that support a transition to renewable energy, broad opposition to the use of eminent domain may result in laws that make it more difficult to bring about a clean energy transition. Though support for a clean energy transition is far from universally embraced in the United States, it is notable that many states and advocates that do support such a transition have often been on the front lines of limiting eminent domain. Thus, we suggest ways for policymakers, advocates, and others to reconsider the role of *Kelo*-style arguments in the context of energy transport projects and enact reforms that will allow critical energy projects to be built in a manner that more fully embraces impacted communities and can provide additional procedural rights and compensation for landowners. In evaluating these reforms, we draw on foundational property theories both supporting and criticizing current judicial approaches to public use and just compensation.

Part II introduces the *Kelo* case and the widespread state legislative and constitutional reforms that followed the Supreme Court's 2005 decision. This Part also explores reasons why the *Kelo* reforms left unchanged the ability of private energy companies to exercise eminent domain for energy projects.

Part III details the fracking revolution that began just as the *Kelo* revolution was ending in 2007. It discusses how newly available sources of domestic shale oil and gas have fundamentally changed the United States energy outlook, and details industry efforts to develop the infrastructure necessary to transport these fuels to domestic and international markets. It explores the growing opposition to these energy transport projects, addressing recent controversies over oil and gas pipelines. In doing so, this Part details the distinct regulatory regimes

governing oil pipelines and natural gas pipelines; the role of eminent domain in building these projects; the states and advocacy groups opposing these projects; and how project opponents have increasingly used *Kelo*-type arguments in their efforts, with growing success.

Part IV turns to electricity, and explains how new technologies, markets, and regulations may dramatically increase use of wind, solar, and hydropower in the United States. Displacing fossil fuels with these new energy sources would mean cleaner air and water and potentially reduced carbon emissions. This alternative path, however, may depend on eminent domain, particularly to build the interstate electric transmission lines necessary to transport wind energy from the Great Plains to population centers and hydropower from Canada to the United States. This Part thus details the barriers electric transmission line companies have faced in building these projects, and why arguments against eminent domain for oil and gas pipelines may apply equally to transmission line projects. While property rights advocates may support eminent domain reform with regard to all energy transport projects regardless of whether they are designed to transport fossil fuels or renewable energy, many states and environmental advocates may wish to distinguish between the two.

Part V evaluates the theoretical justifications for eminent domain in the context of energy-related projects. This Part then suggests ways that policymakers can use eminent domain laws to either support or prevent different types of energy transport projects. Finally, this Part suggests changes to policies governing appropriate compensation for eminent domain actions as well as enhanced procedural rights at the federal and state levels that would promote increased fairness and accountability in eminent domain actions for all energy projects. Part VI concludes.

II. EMINENT DOMAIN AND PUBLIC USE IN THE SHADOW OF *KELO*

The Fifth Amendment to the U.S. Constitution states in part: “nor shall private property be taken for public use without just compensation.”⁶ The Taking Clause of the U.S. Constitution sets the outer limits on the ability of the sovereign to obtain private property without the consent of the owner, even if “just compensation” is paid.⁷ Since the founding of the nation, “sovereigns”—the federal government and the states—have exercised eminent domain authority to build roads, bridges, schools, and other projects for “public use” and have also

⁶ U.S. CONST., amend. V.

⁷ See, e.g., William Baude, *Rethinking the Federal Eminent Domain Power*, 122 YALE L.J. 1738, 1745 (2013) (“Eminent domain is the sovereign’s power to take property—paradigmatically land—without its owner’s consent.”).

delegated their eminent domain authority to local governments and private parties to build projects those sovereigns have defined by statute as a “public use.” State constitutions have similar takings clauses with public use limitations.⁸

For as long as sovereigns and other parties with delegated eminent domain authority have exercised that power, landowners have challenged those actions on grounds that the taking was not for a “public use” or that the payment did not constitute “just compensation.”⁹ Likewise, for decades there have been debates among legal scholars over the justification for eminent domain authority in general and the definition of public use in particular.¹⁰ Nevertheless, beginning in the early 20th century, a long line of federal and state cases interpreted the public use requirement of federal and state takings clauses quite broadly.¹¹ These cases equated “public use” with virtually any legislatively declared “public purpose,” making these cases difficult for landowners to win. Some of these cases involved takings by private parties to build irrigation ditches, pipelines, transmission lines, and rights of way for industrial development while others involved takings by government entities for roads, bridges, schools, stadiums, urban redevelopment projects, or other stated public purposes.¹²

The one-sided nature of these challenges meant that these cases often carried a low profile, causing a legal academic in the 1940s to lament that the issue of public use, while important, “has never figured in the constitutional cases which have aroused passionate controversy, nor

⁸ See, e.g., Maureen E. Brady, *The Damaging Clauses*, 104 VA. L. REV. 341 (2018) (discussing takings provisions in state constitutions).

⁹ See Alexandra B. Klass, *The Frontier of Eminent Domain*, 79 U. COLO. L. REV. 101 (2008) (discussing takings litigation in 19th and early 20th centuries).

¹⁰ See, e.g., Thomas W. Merrill, *The Economics of Public Use*, 72 CORNELL L. REV. 61 (1986); RICHARD EPSTEIN, *TAKINGS: PRIVATE PROPERTY AND THE POWER OF EMINENT DOMAIN* 161-181 (1985); Lawrence Berger, *The Public Use Requirement in Eminent Domain*, 57 OR. L. REV. 203 (1978); Frank I. Michelman, *Property, Utility and Fairness: Comments on the Ethical Foundations of “Just Compensation,”* 80 HARV. L. REV. 1165 (1967); Patricia Munch, *An Economic Analysis of Eminent Domain*, 84 J. POL. ECON. 473 (1976); Abraham Bell, *Private Takings*, 76 U. CHI. L. REV. 517, 545-46 (2009).

¹¹ See, e.g., *Fallbrook Irrigation Dist. v. Bradley*, 164 U.S. 112, 158-164 (1896); *Strickley v. Highland Boy Gold Mining Co.*, 200 U.S. 527, 531 (1906); *Berman v. Parker*, 348 U.S. 26 (1954); *Hawaii Housing Auth. v. Midkiff*, 467 U.S. 229 (1984); ILYA SOMIN, *THE GRASPING HAND: KELO V. CITY OF NEW LONDON AND THE LIMITS OF EMINENT DOMAIN* 55-61 (U. Chicago Press 2015); Klass, *The Frontier of Eminent Domain*, *supra* note 9, at 117-23.

¹² SOMIN, *supra* note 11, at 35-55 (discussing cases); Klass, *The Frontier of Eminent Domain*, *supra* note 9 (same).

in those whose names are known to the lay public.”¹³ This all changed in 2005 with *Kelo v. City of New London*,¹⁴ when, with the help of property rights advocacy groups like the Institute for Justice, the issue of public use captured the attention of the public at large as well as state legislatures across the country.

Kelo involved an effort by the City of New London, Connecticut to redevelop the waterfront area of the city in order to “increase tax and other revenues and to redevelop an economically distressed city.”¹⁵ One component of the redevelopment plan was a new research facility for the pharmaceutical company, Pfizer. After an extensive public planning process that resulted in the city’s approval of the redevelopment plan, the city attempted to negotiate purchase agreements with landowners in the area to assemble the necessary property. Several landowners in the redevelopment area refused to sell and the city exercised the power of eminent domain it had been granted by the Connecticut legislature to obtain those properties. The case reached the U.S. Supreme Court and the Court addressed the question of “whether a city’s decision to take property for the purpose of economic development satisfies the ‘public use’ requirement of the Fifth Amendment.”¹⁶ The Court held in a 5-4 decision that the City’s use of eminent domain in the case met the “public use” requirement of the Takings Clause.

In the majority opinion, Justice Stevens stressed that the Court had “long ago rejected any literal requirement that condemned property be put into use for the general public” and that the question in the case was whether the city’s redevelopment plan served a stated “public purpose.” In finding the public purpose requirement satisfied, the Court gave significant deference to the city’s legislative judgment on that issue, describing in detail the city’s comprehensive planning effort leading up to the approved plan.¹⁷ In the opinion, Justice Stevens relied heavily on earlier cases in which the Court had upheld the exercise of eminent domain based on public purposes that included private mining, agriculture, and redevelopment of urban neighborhoods and found no “principled way” to distinguish the New London redevelopment project from this precedent.¹⁸ Justice Stevens also emphasized that nothing in the Court’s

¹³ Phillip Nichols, Jr., *The Meaning of Public Use in the Law of Eminent Domain*, 20 B.U. L. REV. 615, 615 (1940).

¹⁴ 545 U.S. 469 (2005).

¹⁵ *Kelo*, 545 U.S. at 472.

¹⁶ *Id.* at 477.

¹⁷ *Id.* at 473-74, 479, 482-85.

¹⁸ *Id.* at 484.

opinion prevented states from providing enhanced protection for private property rights in their own constitutions or by legislative action.¹⁹

In dissent, Justice O'Connor, joined by Chief Justice Rehnquist, Justice Scalia, and Justice Thomas, argued that economic redevelopment on its own can never constitute a public use that justifies the exercise of eminent domain. She identified three categories of takings that prior cases had held to meet the public use requirement and that deserved judicial deference: (1) transferring private property to public ownership for public uses such as a road, hospital, or military base; (2) transferring private property to other private parties, often to common carriers, for projects that will be open to the public, such as a railroad, stadium, or a public utility project; and (3) transferring private property to serve a "broader public purpose" even if the property will ultimately be placed in private hands, although such takings must be justified by extraordinary need such as addressing an existing harm to society.²⁰ According to Justice O'Connor, in *Kelo*, the city did not claim the properties being taken were "the source of any social harm" and thus the taking here merely took property put to "ordinary private use" and gave it to another private party for a new "ordinary private use" with some predicted "secondary benefit for the public—such as increased tax revenue, more jobs, maybe even esthetic pleasure."²¹

Justice Thomas wrote his own dissent rejecting the substitution of "public purpose" for the constitutional "public use" requirement for eminent domain. He concluded that the proper reading of the public use clause would allow the government to take property only if "the government owns, or the public has a legal right to use, the property, as opposed to taking it for any public purpose whatsoever."²²

The public, legislative, and judicial reaction to the Court's decision in *Kelo* was unprecedented. Around the country, state legislatures enacted statutes limiting the ability of states and local governments to use eminent domain for economic redevelopment projects and narrowed state definitions of "blight"; state supreme courts interpreted public use provisions in state constitutions to limit or eliminate such takings; and state voters enacted referenda in many

¹⁹ *Id.* at 489.

²⁰ *Id.* at 497-98 (O'Connor, J., dissenting).

²¹ *Id.* at 501.

²² *Id.* at 508 (Thomas, J. dissenting).

states to accomplish the same goal.²³ By 2007, over forty states had engaged in post-*Kelo* reform actions. According to Professor Ilya Somin, who has written extensively on the topic, “[t]he *Kelo* backlash led to more new state legislation than that generated by any other Supreme Court decision in history.”²⁴ This is particularly notable, says Professor Somin, because the *Kelo* case itself was a reaffirmation of the status quo—a broad interpretation of public use that had been in place for decades—rather than an abrupt departure from prior precedent.²⁵

It is important to note, however, that virtually all of the *Kelo*-related state reforms focused exclusively on *government*-initiated economic development takings and explicitly left in place the power of *private parties* to exercise eminent domain to build oil and gas pipelines, electric transmission lines, and other industrial activities included as “public uses” in state statutes and constitutions. In other words, the advocacy rhetoric regarding “private takings” and related reform efforts were focused predominantly on limiting or prohibiting government acquisition of private property through eminent domain that might ultimately be transferred to new private owners. The post-*Kelo* public conversation and reform efforts were completely silent on what would on the surface appear to be even more “private” takings than the redevelopment takings at issue in *Kelo*—eminent domain actions brought by private parties to take private property for a range of energy infrastructure projects.²⁶

These private energy and industrial takings have a long history in the United States and avoided any real scrutiny during the *Kelo* reform era that ended in approximately 2007. Many

²³ See SOMIN, *supra* note 11, at 135. See also Ilya Somin, *The Limits of Backlash: Assessing the Political Response to Kelo*, 93 MINN. L. REV. 2011 (2009) (analyzing post-*Kelo* state action); Dana Berliner, *Looking Back Ten Years After Kelo*, THE YALE L.J. FORUM, July 7, 2015 (discussing post-*Kelo* state action); 13 POWELL ON REAL PROPERTY § 79F.03 & n.271 (discussing post-*Kelo* state legislative and judicial action).

²⁴ See SOMIN, *supra* note 11, at 135. Notably, not all scholars agree that *Kelo* itself or the legislative backlash to the case will have a longstanding impact on takings law. See, e.g., Bethany Berger, *Kelo and the Constitutional Revolution that Wasn't*, 48 CONN. L. REV. 1429, 1436-37 (2016).

²⁵ *Id.*

²⁶ See Alexandra B. Klass, *Takings and Transmission*, 91 N.C. L. REV. 1079, 1094-95 (2013); Bell, *supra* note 10, at 545-46. Of course, limitations on use of eminent domain solely for “economic development” may, in some instances, limit the ability of the government to take private property for energy development purposes if that is the economic development in question. See *Jackson v. Dolan*, 398 S.W.3d 472 (Mo. 2013) (holding that port authority project to build a storage facility for oil transport was solely for the purpose of economic development and thus could not use eminent domain based on post-*Kelo* reforms to state law); *infra* note 93 and accompanying text.

states in the Intermountain West grant eminent domain powers in their state constitutions or in state statutes to private parties to promote mining, milling, and agricultural development.²⁷ Virtually all states grant eminent domain authority to oil and gas companies by statute to build oil and gas pipelines and associated infrastructure and to electric utilities to build electric transmission lines.²⁸ Likewise, nearly a century ago, Congress granted nationwide eminent domain authority to interstate natural gas pipelines that obtain a Certificate of Public Convenience and Necessity from the Federal Energy Regulatory Commission (“FERC”).²⁹

The *Kelo*-inspired reform initiatives either ignored these energy-related private takings or explicitly excluded them from coverage. For instance, post-*Kelo* legislation in Pennsylvania prohibited the use of eminent domain to benefit private parties but created exceptions for, among other purposes, use by a public utility, railroad, or common carrier.³⁰ Similarly, a ballot initiative in Mississippi limited government exercise of eminent domain for economic development takings except where the property is taken for roads, bridges, public utility projects and other projects to generate, store, or distribute carbon dioxide, natural gas, electricity, hydrocarbons, and the like.³¹

Judicial decisions limiting the use of eminent domain as a matter of state constitutional law around the time of the *Kelo* decision also distinguished between unconstitutional “private” takings—where property was transferred by the government from one private party to another for economic redevelopment purposes—and other types of constitutional takings that resulted in a transfer of property to private ownership. For instance, just prior to the *Kelo* decision, in 2004, in *Wayne v. Hathcock*,³² the Michigan Supreme Court reversed prior precedent³³ and held that a county’s exercise of eminent domain to assemble land for a new business and technology

²⁷ See Klass, *The Frontier of Eminent Domain*, *supra* note 9 (discussing eminent domain for natural resource development in the Intermountain West).

²⁸ Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947 (2015); Klass, *Takings and Transmission*, *supra* note 26, at 1095, 1123-24.

²⁹ Klass & Meinhardt, *supra* note 28, at 995-98.

³⁰ See Klass, *Takings and Transmission*, *supra* note 26, at 1094-95.

³¹ *Id.*

³² 684 N.W.2d 765 (Mich. 2004).

³³ *Poletown Neighborhood Ass’n v. Detroit*, 304 N.W.2d 455, 459 (Mich. 1981) (city decision to use eminent domain to take residential property to assemble land to give to General Motors to build a new manufacturing facility was a public use based on project’s purpose of “alleviating unemployment and revitalizing the economic base of the community.”).

park was not a public use under the state constitution. In its analysis, the Court stated that the public use requirement of the state constitution prohibited the transfer of condemned property to private entities except in three circumstances: (1) when the private entity generates public benefits whose existence depends on assembly of land; (2) when the private entity “remains accountable to the public in its use of that property”; and (3) when land selected is “itself based on public concern” such as to remedy urban blight.³⁴

Notably, the *Hathcock* court’s examples for the first two categories of acceptable “private” takings involved transportation and energy. For the first example, which focused on the need for land assembly, the court referred to highways, railroads, and other instrumentalities of commerce that require a straight line that may encourage “holdout” tactics by property owners in the path of the project.³⁵ Such owners will realize that their land is necessary for the project and refuse to accept an offer even 50 times the value of the property, resulting in a “logistical and practical nightmare.”³⁶ As a result, according to the court, “the exercise of eminent domain in such cases—in which collective action is needed to acquire land for vital instrumentalities of commerce—is consistent with the constitutional ‘public use’ requirement.”³⁷ For the second type of acceptable private taking, the court cited with approval its earlier decision in *Lakehead Pipeline Company v. Dehn* from 1954.³⁸ In that case, the court had found that a petroleum pipeline could exercise eminent domain because the state continued to exercise “sufficient control” of the pipeline through the pipeline owner’s commitment to transport its product in interstate commerce and the state’s ability to enforce regulatory requirements.³⁹

These examples make clear that the public, legislative, and judicial eminent domain reform at the time of the *Kelo* decision were focused squarely on government-initiated economic development takings and that energy, utility, and transportation takings were not perceived as a problem. To the contrary, such takings were used as illustrative examples of acceptable “public uses” even though the property at issue would be placed in private ownership.⁴⁰ But timing

³⁴ *Hathcock*, 684 N.W.2d at 781-83.

³⁵ *Id.* at 781-82.

³⁶ *Id.* at 782.

³⁷ *Id.*

³⁸ *Id.* at 782 (citing *Lakehead Pipeline Co. v. Dehn*, 64 N.W.2d 903 (1954)).

³⁹ *Id.*

⁴⁰ Lehavi & Lich, *supra* note 5, at 1710 (identifying “pipelines, and other types of linear infrastructures and utilities” as “Quintessential Public Projects”).

is everything. From 2005 to 2007, during the national wave of *Kelo*-related reforms, these private industrial and energy infrastructure projects were not particularly controversial. Much of the necessary infrastructure to transport energy had already been built decades before, the nation was concerned about U.S. dependence on foreign nations for oil and gas supplies, and the case for building any new infrastructure to transport these resources to make them more easily available to the public at affordable prices would appear to meet even a fairly narrow definition of “public use.” Indeed, Justice O’Connor in her *Kelo* dissent highlighted these types of takings as classic examples of legitimate public uses.⁴¹

In 2007, however, as the post-*Kelo* reform efforts were winding down, another national phenomenon was beginning—both the “fracking revolution” and a surge of onshore wind energy development were starting to completely transform the U.S. energy landscape. Soon after, U.S. oil production, gas production, and wind production were at all-time highs, which required new oil pipelines, gas pipelines, and electric transmission lines to transport these new energy resources to markets. Parts III and IV detail these developments, as well as their collision course with the *Kelo* case.

III. THE FRACKING REVOLUTION AND U.S. PIPELINE EXPANSION

As the post-*Kelo* reforms subsided, another revolution was building: the fracking revolution. In less than a decade, directional drilling and hydraulic fracturing—colloquially known as “fracking”—has upended U.S. and world energy markets. Oil and gas production in the United States has doubled. Nearly all of this new production has been onshore, unlike the offshore oil and gas that dominated new production for decades. This fracking revolution has turned the United States from the world’s biggest oil importer to the world’s biggest producer and a center of two-way global oil trade. The United States is still a major crude oil importer, but is now one of the world’s biggest oil exporters as well. And the rest of the world is counting on the United States to drive a transition to global natural gas markets: the United States is now approving and building vast export capacity to bring liquefied natural gas to markets in Europe and Asia. These dramatic shifts in oil and gas geography have powered a drive for new transport capacity—new oil and gas pipelines to take this new onshore production to market. And this new investment has run into new opposition that is testing the traditional rules of energy transport and eminent domain.

⁴¹ *Kelo*, 545 U.S. at 497-98 (O’Connor, J., dissenting).

A. *The U.S. Oil and Gas Boom*

Until the fracking revolution, nearly all oil extraction had come from conventional oil reservoirs beneath the earth's surface—these conventional reservoirs are permeable layers of rock where oil can flow freely, trapped beneath impermeable rock layers that keep the oil from flowing to the surface. If you drilled through the impermeable layers to the permeable layers, the oil could be pumped out. But petroleum engineers knew that there were also vast quantities of oil and gas held within layers of impermeable shale rock deep under the earth's surface. They also knew that if the impermeable rock were crushed, the oil and gas would be released. But for decades it was considered economically infeasible to unlock this trapped oil and gas—even if you could find such oil-filled impermeable rocks miles beneath the earth's surface, how could you crush enough rock to make drilling that far pay off?

This calculus changed in the late 2000s with advances in directional drilling and hydraulic fracturing. Companies learned how to thread through horizontal layers of impermeable rock precisely, first drilling vertically down a mile or more, turning the wellbore through ninety degrees, and then drilling more than a mile horizontally through layers of rock that are just meters thick. With this horizontal, impermeable shale now threaded, small explosives could make cracks in the rock and extremely high-pressure water could extend those fractures, beginning to release the oil and gas trapped throughout the rock. Fine sand, mixed into the water, would hold these new fractures open, allowing a steady stream of oil and gas to flow back up the well and be extracted at the surface. This complex process of horizontal drilling and hydraulic fracturing is generally called “fracking.”

Before fracking, U.S. oil production had been falling for almost 40 years, from a peak of ten million barrels per day in 1970⁴² to less than five million barrels per day in 2008.⁴³ But fracking quickly transformed U.S. oil production. Three oil fields led the way: the Bakken shale in North Dakota and the Eagle Ford and Permian Basins in Texas. Each of these fields hit 1 million barrels per day of oil production in 2012 and 2013.⁴⁴ By 2015, U.S. production was

⁴² U.S. Energy Info. Admin., *U.S. Monthly Crude Oil Production Exceeds 10 Million Barrels Per Day, Highest Since 1970*, Feb. 1, 2018.

⁴³ U.S. ENERGY INFO. ADMIN., CRUDE OIL PRODUCTION, https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbldpd_m.htm.

⁴⁴ U.S. ENERGY INFO. ADMIN., PERMIAN REGION DRILLING PRODUCTIVITY REPORT (July 2017); U.S. ENERGY INFO. ADMIN., EAGLE FORD REGION DRILLING PRODUCTIVITY REPORT (July 2017); U.S. ENERGY INFO. ADMIN., PERMIAN REGION DRILLING PRODUCTIVITY REPORT (July 2017); U.S.

nearly back to its 1970 peak, reaching 9.6 million barrels per day in April of that year—even with oil prices as low as \$50 per barrel.⁴⁵ By April 2018, production had reached an all-time high, 10.5 million barrels per day and rising sharply, with oil prices over \$70 per barrel driving new drilling.⁴⁶

Fracking has also transformed U.S. natural gas markets: increasing production by 40 percent and reducing prices by more than 80 percent.⁴⁷ Fracking had a bigger impact on gas prices, and a smaller impact on gas production, because gas is more expensive to transport than oil.⁴⁸ New oil production can be moved to distant markets by rail, pipeline, ship, or truck. By contrast, if gas producers want to reach new markets they must either build multi-billion-dollar air-tight pipelines, or multi-billion-dollar liquefaction facilities that can cool the gas until it becomes a liquid that can be sent overseas on refrigerated ships.⁴⁹ As a result, when fracking unlocked gas reserves in Pennsylvania’s Marcellus shale and Texas’s Barnett shale, it quickly

ENERGY INFO. ADMIN., BAKKEN REGION DRILLING PRODUCTIVITY REPORT (July 2017). The Bakken shale also extends into portions of Montana and Saskatchewan.

⁴⁵ U.S. ENERGY INFO. ADMIN., CRUDE OIL PRODUCTION, https://www.eia.gov/dnav/pet/pet_crd_crpdn_adc_mbbldpd_m.htm; U.S. ENERGY INFO. ADMIN., CUSHING, OK WTI SPOT PRICE FOB, <https://www.eia.gov/dnav/pet/hist/rwtcd.htm>.

⁴⁶ *Id.*

⁴⁷ Prices for producers dropped more than 80 percent from July 2008 to May 2012. U.S. Energy Info. Admin., U.S. Natural Gas Wellhead Price, EIA.GOV., <http://www.eia.gov/dnav/ng/hist/n9190us3m.htm>.

⁴⁸ See James W. Coleman, *The Shale ‘Revolution’ Is About Gas Prices & Oil Production*, ENERGY COLLECTIVE, Jul. 17, 2014 (“Increased production of natural gas has had a dramatic effect on natural gas prices because natural gas is hard to transport. If you can’t send natural gas by an existing pipeline to an existing market, your next best option may be to cool it into a liquid at -162°C , load the liquid onto a giant, insulated, quarter-billion dollar vessel and ship it across the ocean, where it can be regasified and burned.”).

⁴⁹ Jacqueline L. Weaver, *Implied Covenants in Oil and Gas Law Under Federal Energy Price Regulation*, 34 VAND. L. REV. 1473, 1518 n.169 (“Gas is not easily stored above ground and can be transported only by pipeline. Moreover, gas pipelines require large capital investments and can be justified only if the pipeline owner has secure sources of supply under long-term gas purchase contracts.”); Nancy J. Forbis, *The Shut-in Royalty Clause: Balancing the Interests of Lessors and Lessees*, 67 TEX. L. REV. 1129, 1131 (1989) (“Natural gas is difficult, if not impossible, to store outside a reservoir, and thus producers must either transport gas to a pipeline as it is produced or retain it at the wellhead until they can locate a willing purchaser.”); Mark P. Gergen, *The Use of Open Terms in Contract*, 92 COLUM. L. REV. 997, 1018, n.68 (1992).

flooded the mid-continent market for gas—prices dropped until consumers could find new ways to use gas or producers could build the expensive facilities to transport gas to new markets abroad.⁵⁰

Even as oil prices fell over 50 percent and gas prices over 80 percent, U.S. production kept rising.⁵¹ As oil and gas producers proved they could pump more and more at lower and lower prices, the focus of energy markets shifted to transport. How would the United States bring this flood of hydrocarbons to market?

B. *The Expansion of Oil and Gas Infrastructure*

For years, oil companies focused on energy production: if oil could be produced, there would be a market for it. Of course, increased production has always required increased transport capacity to take new product to market. But in the past, this new production could often use the same pipelines and shipping routes used by previous producers. In recent years the focus of energy companies and energy law has shifted dramatically to energy transport for three reasons.

First, the last decade's oil and gas boom did not fit the usual geography of oil and gas transport, which for years brought oil from the Gulf Coast to the Midwest for refining and gas from the Gulf Coast to the Northeast for use in heating, industry, and electricity production. Instead, massive new production of oil in North Dakota meant that the Midwest now

⁵⁰ The cost of transporting natural gas is why, unlike oil, no one talks about the “price” of a unit of natural gas without specifying the location: adjacent gas markets can have drastically different natural gas prices if there is not enough transport connecting the two regions. The midcontinent, defined by a triangle of production from Alberta in the northwest, to Pennsylvania in the northeast, to Texas in the south is the world's largest, and for the past ten years, most affordable, gas market. Yet, adjacent markets in New England and Mexico have, at times, suffered through the highest prices in the world. Naureen S. Malik, *Cold Snap Makes New England the World's Priciest Gas Market*, BLOOMBERG, Dec. 27, 2017; Adebola S. Kasumu et al., *Country-Level Life Cycle Assessment of Greenhouse Gas Emissions from Liquefied Natural Gas Trade for Electricity Generation*, 52 ENVTL. SCI. & TECH. 1735, 1739 (2018) (showing a spike in natural gas prices in Mexico in mid-2013 from under \$5 per million British Thermal Units (MMBTU) to over \$15 per MMBTU while U.S. Gulf Coast prices remain low).

⁵¹ Natural gas prices fell more than 80 percent and production kept rising. Oil prices fell from \$104/barrel in July 2014 to \$26/barrel in February 2016, which did cause oil production to slow down, and even slightly decline as producers struggled to cut costs for several months—but by September 2016, when prices were only back up to \$45/barrel, oil production was again on the rise.

had oil to export. And new gas production in Pennsylvania meant the Northeast had gas to export.

Second, as fracking technology and ruthless competition pushed prices of oil and gas lower, transport costs became a larger share of the price of delivered hydrocarbons. The financial fate of every new fracked well has become increasingly dependent on affordable paths to markets where the well's different oil and gas products can receive a reasonable price.

Third, gas—which is more expensive to transport—is becoming a more important part of energy production and is projected to form a larger share of hydrocarbon consumption in coming decades. For years, natural gas was often seen as a useless byproduct of oil production—unless it could somehow be transported to a nearby market for fuel, it would simply be re-injected into a reservoir to increase oil production or burned off. At worst, it was a hazardous byproduct of oil production liable to causing blow-outs or explosions. There is a reason that the “oil and gas industry” was once more commonly known as the “oil industry.”

Over time, natural gas has become increasingly important to the industry, and recent developments have accelerated that trend. For one thing, fracking targets rock layers where hydrocarbons are trapped in place, rather than free flowing, so oil molecules in the rock have not separated from gas molecules. As a result, oil companies cannot simply target oil molecules; instead, when they produce, they necessarily produce a mix of hydrocarbons from methane, the lightest gas, through heavier gases, to oil. Furthermore, gas transport, while still expensive, is constantly improving to make it possible to bring more and more gas to markets further afield. Finally, to the extent that increased natural gas extraction has environmental benefits such as replacing coal power and backing up intermittent solar and wind power, it requires transportation to markets.⁵²

The financial imperative to find transport for the flood of shale oil and gas has created an extraordinary build-out in oil and gas pipelines. In less than ten years the natural gas industry spent \$56 billion on expanding the U.S. natural gas pipeline network.⁵³ Gas transport out of

⁵² Natural gas plants, unlike coal, nuclear, and most hydropower plants, are well designed to quickly ramp their power output up and down to ensure that power supplied to the grid matches the power demanded from the grid. As a result, new supplies of natural gas are well suited to serve as back up power in areas that would like to incorporate more solar and wind power.

⁵³ U.S. Dep't of Energy, Natural Gas Infrastructure, p. 28, https://www.energy.gov/sites/prod/files/2015/06/f22/Appendix%20B-%20Natural%20Gas_1.pdf; Ganesh

the U.S. Northeast is up 300 percent since 2008 and is set to be up 500 percent by the end of 2018. Oil pipelines have also seen dramatic expansion—particularly transporting oil from the Permian basin in Texas and the Bakken shale in North Dakota.⁵⁴ It is not surprising that such a massive expansion of pipeline infrastructure, almost all of which requires extensive easements over private land, would engender growing opposition by landowners, property rights advocates and, increasingly, environmental advocates who fear that investing significant resources in new, long-lived fossil fuel infrastructure will result in path dependency and impede the transition to a low carbon energy economy.⁵⁵ The next section explores the recent opposition to new oil and gas pipelines as well as how that opposition is articulated within the existing state and federal regimes governing permitting and eminent domain authority for these projects.

C. *Increased Opposition to Use of Eminent Domain for Pipelines*

The United States has a uniquely bifurcated system for approving hydrocarbon pipelines: states approve oil pipelines and decide whether to authorize eminent domain; the federal government makes the same decisions for gas pipelines and related infrastructure such as compression stations and liquefied natural gas terminals.⁵⁶ The historic reasons for this division of labor are complex, and can be traced to Congress addressing state barriers to building pipeline transport for natural gas from the Gulf Coast states to the Northeast in the 1930s. Such barriers did not exist for oil, which can be transported not only by pipeline but also by ship, truck, and rail.⁵⁷ For natural gas pipelines, FERC decides whether the gas pipeline is needed and, if so, the pipeline is authorized to bring an action for eminent domain to acquire any easements over private property in cases where it is not able to negotiate voluntary agreements with all landowners.⁵⁸ For oil pipelines, each state has its own set of laws that determine whether and

Dabholkar, *Pipeline Industry Growth Fueled By Increasing Global Energy Demand, Shale Gas Exploration*, PIPELINE & GAS J., Mar. 2014.

⁵⁴ Christopher E. Smith, *Crude Oil Pipeline Growth, Revenues Surge; Construction Costs Mount*, OIL & GAS J., Sep. 1, 2014.

⁵⁵ See, e.g., Mike Lee & Edward Klump, *Pipeline Builders, Gas Drillers Fret About Protesters*, ENERGYWIRE, Mar. 8, 2018.

⁵⁶ Klass & Meinhardt, *supra* note 28.

⁵⁷ *Id.*

⁵⁸ 15 U.S.C. § 717f(h).

how an oil (or natural gas liquids)⁵⁹ pipeline can be built and whether and how an oil company can exercise eminent domain. In recent years, the use of eminent domain for pipelines under both federal and state law has become controversial and has been challenged in court by affected landowners as well as national environmental groups such as the Sierra Club as well as local environmental advocacy groups.⁶⁰

Notably, the advocacy groups partnering with affected landowners in these eminent domain challenges to oil and gas pipelines have a very different mission than the advocacy groups that represented Suzette Kelo and drove the post-*Kelo* reforms in the states. The opponents in *Kelo* were libertarians attempting to limit government power over private citizens.⁶¹ For them, eminent domain represents government intrusion into individual rights that needs to be limited by defining public use narrowly. By contrast, the primary advocacy groups opposing fossil fuel energy projects come from the other end of the political spectrum. They advocate broad government intervention in the energy economy to protect the environment by (among other things) limiting the ability to burn fossil fuels.⁶² The energy project opponents generally favor government action on behalf of the public interest over private rights. As illustrated below, the environmental advocacy groups have strategically adopted many of the arguments of their libertarian predecessors despite the differences between their philosophies and ultimate objectives.⁶³

⁵⁹ “Natural gas liquids” are hydrocarbons that are intermediate in density between the lightest hydrocarbon, methane, which has only one carbon, and the longer, denser carbon chains that comprise crude oil. These molecules, such as ethane, propane, butane, and pentane, have two to five carbons and may exist as either a liquid or a gas depending on temperature and pressure. They are used in petrochemical plants, burned for space heating and cooking, or blended into fuels. Pipelines that transport natural gas liquids are regulated like oil pipelines, which means they are subject to state permitting and eminent domain laws rather than subject to FERC authority under the Natural Gas Act. See Alexandra B. Klass, *Future-Proofing Energy Transport Law*, 94 WASH. U. L. REV. 827, 835 n.23 (2017) (citing authority).

⁶⁰ See Sierra Club, *Beyond Dirty Fuels Initiative*, <https://content.sierraclub.org/ourwildamerica/beyond-dirty-fuels-initiative>; Michael Sol Warren, N.J. *Environmentalists Use New Legal Strategy to Fight Pipelines*, N.J.COM, Dec. 3, 2017; Rimmi Singhi, *Pipeline Challenges in U.S. and Canada Continue Amid Oil Boom*, NASDAQ, Sept. 14, 2018.

⁶¹ See *supra* notes 3-4 and accompanying text (discussing Institute for Justice and other libertarian groups involved in the *Kelo* case and post-*Kelo* advocacy work).

⁶² See Sierra Club, *supra* note 60.

⁶³ See Ellen M. Gilmer, *Burgeoning Legal Movement Pits Landowners Against Pipelines*, ENERGYWIRE, Sept. 13, 2017 (discussing positions of libertarian groups and environmental advocacy groups in eminent domain challenges to oil and gas pipelines).

1. *Natural gas pipelines*

As energy companies have rushed to build new natural gas pipelines, some plaintiffs have argued that, as private companies, pipeline companies should have to make a stronger showing that their proposals are in the public interest.⁶⁴ FERC generally applies a market test: it grants a certificate of public convenience and necessity for a natural gas pipeline which, in turn, automatically conveys eminent domain authority through the Natural Gas Act, so long as the company has contracts to transport gas.⁶⁵ Pipelines can rely on these to obtain a certificate and exercise eminent domain even when they are with “affiliate companies”—such as parent or subsidiary companies.⁶⁶ FERC rarely denies requests for certification since pipeline companies would rarely bother applying without such contracts in hand. In fact, FERC has only denied a certificate for two pipelines in the last 30 years.⁶⁷

⁶⁴ Berkley, et al v. Mountain Valley Pipeline LLC, Complaint, No. 7:17-CV-00357, (W.D. Va. July 27, 2017), https://www.gentrylocke.com/wp-content/uploads/2017/07/GentryLocke_FERC-Complaint.pdf.

⁶⁵ See *In re Mountain Valley Pipeline*, 136 FERC ¶ 61,197 at 17-26 (June 15, 2018) (order on rehearing).

⁶⁶ *Id.* FERC only approves pipelines that can show they are “required by the present or future public convenience and necessity.” 15 U.S.C. § 717f(e). To do this, pipeline developers show that they have contracts—known as “precedent contracts”—with companies that will ship gas on the pipeline once it is built. Emily Pitlick Mallen & Katy Lukaszewski, *Pipeline Outlook: How FERC Reliance on Precedent Agreements Could Change*, TEXAS LAWYER, Mar. 1, 2018. Although a pipeline that only transports gas for its own parent or subsidiary company might not seem like a public use, FERC has traditionally given “equal weight to contracts between an applicant and its affiliates and an applicant and unrelated third parties.” Statement of Policy, 88 FERC ¶ 61,227 (1999) (citing *Transcontinental Gas Pipe Line Corp.*, 82 FERC ¶ 61,084 at 61,316 (1998)). For a discussion of growing criticism of this approach based on concerns over self-dealing, see Gavin Bade, *Split FERC Approves Spire Pipeline, Brushing Aside Self-Dealing Concerns*, UTILITY DIVE, Aug. 6, 2018.

⁶⁷ *In re Jordan Cove Energy Project and Pacific Gas Connector Pipeline*, 157 FERC ¶ 61,194 (Dec. 9, 2016) (order denying rehearing of March 11, 2016 FERC Order denying certificate under Section 3 of Natural Gas Act for Jordan Cove liquefied natural gas export terminal and denying certificate under Section 7 of Natural Gas Act for related Pacific Connector pipeline for lack of need); Jonathan Crawford & Naureen Malik, *U.S. Rejects Multibillion-Dollar Jordan Cove Gas Export Plan*, BLOOMBERG, Mar. 11, 2016; Ellen M. Gilmer, *Is FERC Bent on Approving Pipelines? Judges Weigh Claim*, ENERGYWIRE, Mar. 23, 2018; Gavin Bade, *Climate, Project Need At Center of FERC Pipeline Policy Review*, UTILITY DIVE, July 30, 2018 (discussing criticism of FERC policy that is seen as too lax with regard to establishment of pipeline “need” and citing report tracking FERC pipeline approvals).

In 2018, FERC requested comments on whether it should revise its policy statement from 1999 that guides its authorization of construction and eminent domain for natural gas pipelines in the light of the significant changes in natural gas production and markets over the past ten years.⁶⁸ In the meantime, plaintiffs and a minority of FERC Commissioners have begun to challenge FERC approval of natural gas pipelines, beginning with three projects: the Mountain Valley, PennEast, and Atlantic Coast pipelines.⁶⁹

The Mountain Valley Pipeline would stretch approximately 300 miles from northwestern West Virginia to southern Virginia. FERC approved the pipeline and denied a request for rehearing.⁷⁰ Commissioners LaFleur and Glick, however, dissented, arguing that the Commission had not done enough to evaluate the environmental impacts of the project, including its contribution to downstream greenhouse gas emissions, and adverse impacts on landowners.⁷¹ Commissioner Glick also dissented on grounds that the pipeline should not be able to rely on transport agreements with affiliate companies to establish that the pipeline is for the “public convenience and necessity” under the Natural Gas Act.⁷² In 2017, a group of landowners in Virginia and West Virginia filed suit against FERC and Mountain Valley Pipeline in federal district court in Virginia.⁷³ The plaintiffs argued that FERC’s decision-making process for granting eminent domain fell short of the minimum required by the Supreme Court’s holding in *Kelo v. City of New London*.⁷⁴

The Atlantic Coast Pipeline would also take gas from West Virginia, transporting it 600 miles to southern North Carolina.⁷⁵ FERC approved the pipeline, but Commissioner LaFleur

⁶⁸ Fed. Energy Regulatory Comm’n, Certification of New Interstate Natural Gas Facilities, 163 FERC ¶ 61,042 (Apr. 19, 2018); Ellen M. Gilmer, et al., *Commenters Swarm FERC to Push Reform—And Status Quo*, ENERGYWIRE, July 27, 2018; Bade, *supra* note 66.

⁶⁹ Each pipeline is approximately 40 inches in diameter and will require permanent easements across numerous parcels of private property in multiple states of approximately fifty to seventy-five feet in width.

⁷⁰ Mountain Valley Pipeline, LLC, 163 FERC ¶ 61197, 2018 WL 3032149 (June 15, 2018).

⁷¹ *Id.* See also Rod Kuckro, *Commissioner: Time to Weigh Pipelines’ Climate Threats*, ENERGYWIRE, Oct. 31, 2018 (discussing Commissioner Glick’s public statement that FERC “needs to acknowledge the ‘existential threat’ posed by climate change and address it in the context of the natural gas projects it reviews . . .”).

⁷² *Id.* See also *supra* note 62 (describing affiliate companies and precedent contracts).

⁷³ Berkley, et al. v. Mountain Valley Pipeline LLC, Complaint, *supra* note 66.

⁷⁴ *Id.* at 3. See *Kelo v. City of New London*, 545 U.S. 469 (2005).

⁷⁵ Atlantic Coast Pipeline, LLC, 161 FERC ¶ 61,042, 2017 WL 4925429 (2017).

dissented, arguing that the Commission should have considered further alternatives and should not have allowed the pipeline to rely on transport agreements with affiliate companies.⁷⁶ In 2017, a separate group of plaintiffs challenged both the Mountain Valley Pipeline and the Atlantic Coast Pipeline in the U.S. District Court for the District of Columbia.⁷⁷

In 2018, FERC issued a certificate to the PennEast pipeline project, which would ship natural gas 115 miles from Pennsylvania to New Jersey.⁷⁸ Commissioner Glick dissented, arguing that PennEast should not have been able to rely on transport agreements with affiliate companies.⁷⁹ Commissioner Glick expressed particular concern with FERC's practice of granting "conditional" certificates that immediately authorize the pipeline to begin eminent domain proceedings against landowners even though the company does not yet have all the information necessary to establish that the pipeline is in the "public interest"—a prerequisite to receiving a FERC certificate.⁸⁰ Commissioner Glick argued that there are "significant consequences for landowners whose properties lie in the path of the proposed pipeline" and that "Congress did not intend for the Commission to issue certificates so that certificate holders may use eminent domain to acquire the information needed to determine whether the pipeline is in the public interest."⁸¹

In the past, FERC has been able to sidestep lawsuits challenging its approvals until a pipeline is already constructed. The Natural Gas Act only allows challenges to FERC approvals after the plaintiff has filed a request for rehearing and that request has been denied.⁸² FERC does not decide such requests immediately, frequently extending its consideration of them so long that the pipeline has completed necessary eminent domain processes under its conditional certificates and is already complete.⁸³ Even then any challenge must be filed in the D.C. Circuit or the Circuit where the company is headquartered.⁸⁴

⁷⁶ *Id.*

⁷⁷ *Bold Alliance v. FERC*, 1:17-CV-01822 (D.D.C., filed Sept. 5, 2017).

⁷⁸ *PennEast Pipeline Company, LLC*, 162 FERC ¶ 61,053 (Jan. 19, 2018).

⁷⁹ *Id.*

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² 15 U.S.C. § 717r.

⁸³ *Berkley v. Mountain Valley Pipeline*, 896 F.3d 624 (4th Cir. 2018).

⁸⁴ 15 U.S.C. § 717r (requiring court challenges be filed "in the court of appeals of the United States for any circuit wherein the natural-gas company to which the order relates is located or has its principal place of business, or in the United States Court of Appeals for the District of Columbia").

As a result of the inability to obtain judicial review before eminent domain and pipeline construction, multiple groups of plaintiffs filed suit in federal district courts in Virginia, D.C., and New Jersey—arguing that their constitutional claims regarding eminent domain were not within the scope of exclusive federal appellate jurisdiction.⁸⁵ They argued that unless they could challenge FERC’s action in district court, they could not effectively combat the allegedly unconstitutional use of eminent domain; by the time their claim could be adjudicated, their properties would already have been taken. Nevertheless, all of the federal district courts dismissed the cases, following the text of the Natural Gas Act’s procedures for judicial review requiring challenges to FERC pipeline orders to be filed in the federal circuit courts.⁸⁶ The Fourth Circuit affirmed the decision from the Western District of Virginia and the other two cases are on appeal.⁸⁷

This growing opposition to the alleged unexamined exercise of eminent domain authority for any and all interstate natural gas pipelines is a significant shift away from decades of relative complacency, and has garnered support from at least two current FERC Commissioners. It remains to be seen whether a majority of FERC Commissioners or the federal courts will begin to give greater scrutiny to the use of eminent domain for these projects through revised FERC procedures or new judicial doctrines. Nevertheless, the concerted public opposition to such projects is reminiscent of the growing opposition to the government use of eminent domain for economic development takings a decade earlier that changed the landscape of eminent domain law.

2. *Oil pipelines*

With regard to oil pipelines, historically all states allowed the use of eminent domain for oil pipeline construction with some states, like Illinois, requiring that the company first obtain a certificate of need from the state’s public utility commission while others, like Texas, requiring that the company only attest that it would serve as a “common carrier” and transport oil

⁸⁵ Berkley v. Mountain Valley Pipeline, Complaint, *supra* note 64; Bold Alliance v. FERC, Complaint, *supra* note 77; New Jersey Conservation Found. v. FERC, 2018 WL 5342833 (D.N.J., Oct. 29, 2018).

⁸⁶ Bold Alliance v. FERC, 2018 WL 4681004 (D.D.C., Sept. 28, 2018); Berkley v. Mountain Valley Pipeline, 2017 WL 6327829 (W.D. Va., Dec. 11, 2017), *aff’d*, 896 F.3d 624 (4th Cir. 2018); New Jersey Conservation Found. v. FERC, 2018 WL 5342833 (D.N.J., Oct. 29, 2018).

⁸⁷ Berkley v. Mountain Valley Pipeline, 896 F.3d 624 (4th Cir. 2018).

for unaffiliated companies.⁸⁸ However, as the oil industry has attempted to build new pipeline infrastructure to accommodate production growth since the advent of fracking, landowner opposition has grown, causing state legislatures and state courts to place new limits on the use of eminent domain for oil pipelines. Two states—South Carolina and Georgia—placed moratoria on eminent domain for oil and natural gas liquids pipelines in response to coalitions of landowners and environmental groups opposing the Palmetto Pipeline.⁸⁹ Likewise, a landowner challenge to the use of eminent domain for a new oil pipeline in Colorado resulted in the Colorado Supreme Court holding for the first time in 2012 that the state statute granting eminent domain authority for enumerated energy and water transportation infrastructure projects did not extend to oil pipelines.⁹⁰ And in Kentucky, the state court of appeals held in 2015 that a pipeline proposed to transport natural gas liquids to the Gulf of Mexico for export would not serve Kentucky consumers and thus would not be in “public service” as required by state statute to exercise eminent domain.⁹¹

One common question that arises under the different state standards for eminent domain is, who should be able to define what is a public use? This question may have constitutional dimensions because if a private company has unchecked authority to define public use it may be able to take property from landowners without due process of law.⁹² Thus far, the courts

⁸⁸ See *Denbury Green Pipeline v. Texas Land Rice Partners*, 510 S.W.3d 909 (Tex. 2017); *Texas Rice Land Partners, Ltd. v. Denbury Green Pipeline—Texas, LLC*, 363 S.W.3d 192 (Tex. 2012); Klass & Meinhardt, *supra* note 28, at 982-88 (discussing different state regulatory regimes for oil pipelines).

⁸⁹ See *How the Kinder Morgan Pipeline Was Defeated*, CORPORATE CRIME REPORTER, Nov. 21, 2016 (interview with executive director of Savannah Riverkeeper regarding landowner and environmental group coalitions); South Carolina Attorney Gen. Op. 9-12, 14 (July 1, 2015) (opinion finding that oil pipelines are not “public utilities” under relevant state statute and that delegation of eminent domain authority to a private pipeline company would violate the state constitution because “economic development or public benefit is insufficient in itself to constitute public use for purposes of the Constitution”).

⁹⁰ *Larson v. Sinclair Transp. Co.*, 284 P.3d 42, 43 (Colo. 2012) (en banc).

⁹¹ *Bluegrass Pipeline Co. v. Kentuckians United to Restrain Eminent Domain*, 478 S.W.3d 386 (Ky. Ct. App. 2015).

⁹² *Eubank v. City of Richmond*, 226 U.S. 137, 140-41 (1912); *Washington ex rel. Seattle Title Trust Co. v. Roberge*, 278 U.S. 116, 118-19 (1928) (state may not require two-thirds approval of nearby landowners to construct a home for the poor); *Carter v. Carter Coal Co.*, 298 U.S. 238, 310-11 (1936) (majority of coal industry may not set wages for all coal companies).

have not proven receptive to these claims,⁹³ but they present thorny theoretical issues that may interest future courts.

This question may become particularly salient in states that proclaim a state policy of transitioning away from fossil fuels. For decades it was beyond question that a fossil fuel pipeline, whether oil or gas, constituted a “public use” under state law. But growing landowner opposition to oil pipelines and environmental group opposition to all fossil fuel infrastructure has already begun to bring about changes in state law, as shown by court decisions in Colorado and legislative action in Georgia and South Carolina.

A growing challenge to the use of eminent domain for both oil and gas pipelines is that pipelines are increasingly proposed to transport oil and gas for export to other countries rather than for use in the United States. For such pipelines, it is easier for opponents to argue that there is no “public use” beyond the economic development benefits associated with exporting oil and gas because U.S. citizens will not be “using” that energy.⁹⁴ Although *Kelo* affirmed that economic development constituted a public use under the U.S. Constitution, the post-*Kelo* legislative and judicial reforms in the states may pose new barriers to the use of eminent

⁹³ See *Boershig v. Trans-Pecos Pipeline*, 872 F.3d 701 (5th Cir. 2017) (rejecting claim that delegation of eminent domain authority to private natural gas company under Texas law for intrastate pipeline violates due process); *Cox v. Ohio*, 2016 WL 4507779 (N.D. Ohio 2016).

⁹⁴ See *Laura Urban et al. v. Federal Energy Regulatory Commission*, Complaint, No. 5:17-CV-01005-JRA (N.D. Ohio, May 12, 2017) (challenging use of eminent domain for natural gas pipeline proposed to transport natural gas for export), <https://www.courthousenews.com/wp-content/uploads/2017/05/NexusPipeline.pdf>; Ellen M. Gilmer, *Court Scraps Eminent Domain Challenge to Ohio Pipeline*, ENERGYWIRE, Dec. 20, 2017 (reporting on court decisions dismissing challenges to use of eminent domain for pipelines proposed to transport natural gas for export).

domain for such pipelines.⁹⁵ This raises the question of whether a pipeline to export oil and gas out of the country or even out of the state simply does not serve a “public use.”⁹⁶

Moreover, new alignments between property rights groups and climate change activists—like those that drove opposition to the controversial Keystone XL and Dakota Access pipelines—may spur the courts or Congress to adopt further restrictions on eminent domain. Perhaps a challenge to a pipeline could be a vehicle for overturning the *Kelo* case outright.⁹⁷ Only two of the five justices who joined that decision are still on the court. Some even argue that the federal government, at least, should not have eminent domain authority at all.⁹⁸

IV. THE GROWTH OF RENEWABLE ENERGY AND THE NEED FOR ELECTRIC TRANSMISSION INFRASTRUCTURE

Electric utilities and other electric transmission line providers have faced challenges to the use of eminent domain in recent years that are similar to those faced by pipeline companies.

⁹⁵ See *Jackson v. Dolan*, 398 S.W.3d 472 (Mo. 2013) (port authority could not exercise eminent domain to build a new storage facility for oil transport down the Mississippi River because project was intended to promote economic development and post-*Kelo* legislation in Missouri prohibited the use of eminent domain solely for economic development); South Carolina Attorney General Opinion, *supra* note 89 (finding that “economic development or public benefit is insufficient in itself to constitute public use for purposes of the Constitution”); *Robinson Township v. Commonwealth*, 147 A.3d 536 (Pa. 2016) (legislature’s delegation of eminent domain authority to natural gas companies to take property for natural gas storage reservoirs not a public use because a “mere incidental benefit” to the public is not enough to constitute a “public use” under *Kelo* or the Pennsylvania Constitution).

⁹⁶ See *Mountain Valley Pipeline v. McCurdy*, 793 S.E.2d 850 (W. Va. 2016) (court, citing *Kelo*, found natural gas pipeline company could not conduct surveys within the state because all gas was destined for other states, company had not yet obtained FERC certificate, and in absence of FERC certificate, company lacked power of eminent domain under state law if no West Virginia customers would receive the gas). See also Eliza Griswold, *A Pipeline, A Protest, and the Battle for Pennsylvania’s Political Soul*, NEW YORKER (Oct. 26, 2018) (discussing local opposition to Mariner East Pipeline proposed to transport natural gas liquids for international export and questioning the “public use” for a pipeline that will carry liquids that “will go directly to a foreign company.”).

⁹⁷ SOMIN, *supra* note 11 at xiv (preface to the paperback edition) (noting that “[l]egislative efforts to restrict pipeline takings have also expanded over the past year” and predicting that “left-right coalitions might facilitate further progress in protecting property rights and limiting the use of eminent domain”); Ellen M. Gilmer, *Burgeoning Legal Movement Pits Landoners Against Pipelines*, ENERGYWIRE, Sept. 13, 2017 (“it’s possible that they might rethink parts of *Kelo* or maybe even overrule it”).

⁹⁸ Baude, *supra* note 7.

This Part explains the significant changes to electricity resources and electricity markets that have occurred since the *Kelo* case was decided. Many of these developments have created new demands for a massive build-out of transmission lines to transport renewable electricity to population centers and a related rise in opposition to the use of eminent domain to build such lines.

A. *The U.S. Electric Grid*

The U.S. electric grid provides electric energy from over 8,000 large electricity generation sources, or “power plants,” as well as smaller sources of power, to homes, businesses, and industrial facilities over a complex network of long-distance, high voltage transmission lines and lower voltage distribution lines.⁹⁹ The nation’s power plants run on fossil fuels—coal, oil, and natural gas—together with nuclear energy and renewable energy—primarily wind, hydro-power, solar, and geothermal. The nation’s electricity generation mix has evolved over time; since 2007 there has been a significant shift away from coal-fired generation, which has been replaced in large part by low-cost shale gas and renewable power sources.¹⁰⁰

Historically, large vertically integrated,¹⁰¹ investor-owned utility companies along with municipal utilities, and rural electric cooperatives produced, transmitted, and distributed the vast majority of U.S. power. Today, however, as a result of federal and state laws designed to encourage competition in wholesale electricity markets, “independent power producers”—companies that produce power for wholesale sale to other power providers but do not have retail customers—generate approximately 40 percent of the nation’s electricity.¹⁰² Investor-owned

⁹⁹ See U.S. Energy Info. Admin., *How Many Power Plants Are there in the United States?*, Dec. 8, 2017 (providing data on U.S. electric generating plants over 1 megawatt (MW) as of December 2016).

¹⁰⁰ U.S. Energy Info. Admin., *EIA Forecasts Natural Gas to Remain Primary Energy Source for Electricity Generation*, Jan. 22, 2018; U.S. Energy Info. Admin., *Nearly Half of Utility-Scale Capacity Installed in 2017 Came From Renewables*, Jan. 10, 2018.

¹⁰¹ A utility is “vertically-integrated” if it owns electricity generation, transmission, and distribution assets. Utilities that are not vertically integrated own transmission and distribution assets but purchase electric energy from independent power producers and other companies that generate and sell electricity in wholesale markets.

¹⁰² See Edison Elec. Inst., *Industry Data*, <http://www.eei.org/resourcesandmedia/industrydata-analysis/industrydata/Pages/default.aspx>. With regard to number of customers served, investor-owned utilities serve 68 percent of U.S. electricity customers, public power utilities serve 15 percent,

utilities generate another 40 percent and municipal utilities, rural electric cooperatives and federal power agencies make up the balance of the U.S. power supply.¹⁰³

The electric energy generated at the nation's power plants is transported over 642,000 miles of high-voltage transmission lines and 6.3 million miles of lower voltage distribution lines to residential, commercial, and industrial end use customers.¹⁰⁴ The bulk of the U.S. electric grid is alternating current ("AC"), which supports two-way transmission and easy voltage conversion at electric substations from high voltage to low voltage current.¹⁰⁵ But there are plans to increase the now small number of high-voltage, direct current ("DC") transmission lines, which transport electric current more efficiently over long distances, to bring onshore wind power from the Great Plains to population centers.¹⁰⁶

The U.S. grid is made up of three separate "interconnections"—the Eastern Interconnection which consists of the eastern United States to approximately the Rocky Mountains, the Western Interconnection, which runs from the Rocky Mountains to the West Coast, and the Texas Interconnection, which includes most of the State of Texas.¹⁰⁷ Electricity flows freely within each of the interconnection, but not between them, except through designated high-voltage DC transmission lines.¹⁰⁸

Since the enactment of the Federal Power Act of 1935, regulatory authority over the nation's electricity system has been divided between the states and the federal government. FERC has authority over wholesale sales of electricity in interstate commerce and the

rural electric cooperatives serve 13 percent, and power marketers (mostly in Texas) serve 4 percent. *See* Am. Public Power Ass'n, Stats & Facts (last visited July 22, 2018).

¹⁰³ *Id.*

¹⁰⁴ U.S. Dep't of Energy, Quadrennial Energy Review: Energy Transmission, Storage, and Distribution Infrastructure 3-34 (2015). *See also* U.S. Dep't of Energy, United States Electricity Industry Primer 12-22 (July 2015).

¹⁰⁵ U.S. Dep't of Energy, Transforming the Nation's Electricity System: The Second Installment of the QER, Appendix: Electricity System Overview A-7 (Jan. 2017).

¹⁰⁶ U.S. Energy Info. Admin., *ELA Study Examines the Role of High-Voltage Power Lines in Integrating Renewables*, June 28, 2018; U.S. ENERGY INFO. ADMIN., ASSESSING HVDC TRANSMISSION FOR IMPACTS OF NON-DISPATCHABLE GENERATION (June 2018).

¹⁰⁷ U.S. Energy Info. Admin., *U.S. Electric System is Made Up of Interconnections and Balancing Authorities*, July 20, 2016.

¹⁰⁸ *Id.*

transmission of electricity in interstate commerce.¹⁰⁹ States have authority to regulate retail sales of electricity, wholly intrastate electricity transmission,¹¹⁰ and the approval and operation of individual power plants and electric transmission infrastructure. The federal government regulates the price and reliability of power transmissions but states must approve new power lines.

To better coordinate interstate transmission of electricity and increase competition in wholesale electricity markets, FERC issued a series of orders starting in the 1990s, including ones to encourage power providers to form multi-state Regional Transmission Organizations (“RTOs”) and Independent System Operators (“ISO”).¹¹¹ RTOs and ISOs manage the electric grid on behalf of the electric utilities and other entities that own the power lines and they also oversee wholesale electricity sales within the region.¹¹² Transmission owners in approximately half the states, covering two-thirds of U.S. electricity demand, have joined RTOs and ISOs.¹¹³ The map below shows RTOs and ISOs in the United States.¹¹⁴ In the rest of the country,¹¹⁵ utilities and other power providers manage their own transmission assets.¹¹⁶ RTOs and ISOs also engage in transmission expansion planning within their regions—their decisions on transport pricing can make or break power line proposals. But only states can authorize companies to build new power lines and use eminent domain.

¹⁰⁹ See *New York v. Fed. Energy Reg. Comm’n*, 535 U.S. 1 (2002). FERC and the North American Electric Reliability Corporation (“NERC”) set rules and standards for power plant operators and transmission line operators to ensure reliability of the power grid and prevent cyber attacks and other security breaches. Municipal utilities and rural electric cooperatives are exempt from regulation under the Federal Power Act and are generally either not regulated under state law or are subject to more limited regulation under state law than investor-owned utilities. JIM LAZAR, *ELECTRICITY REGULATION IN THE UNITED STATES: A GUIDE* 11-15 (2d ed. 2016).

¹¹⁰ Wholly intrastate transmission only exists on isolated power grids such as Alaska, Hawaii, and parts of Texas.

¹¹¹ See Fed. Energy Reg. Comm’n, *Regional Transmission Organizations (RTO)/Independent System Operators (ISOs)*.

¹¹² Fed. Energy Reg. Comm’n, *Electric Power Markets: National Overview*.

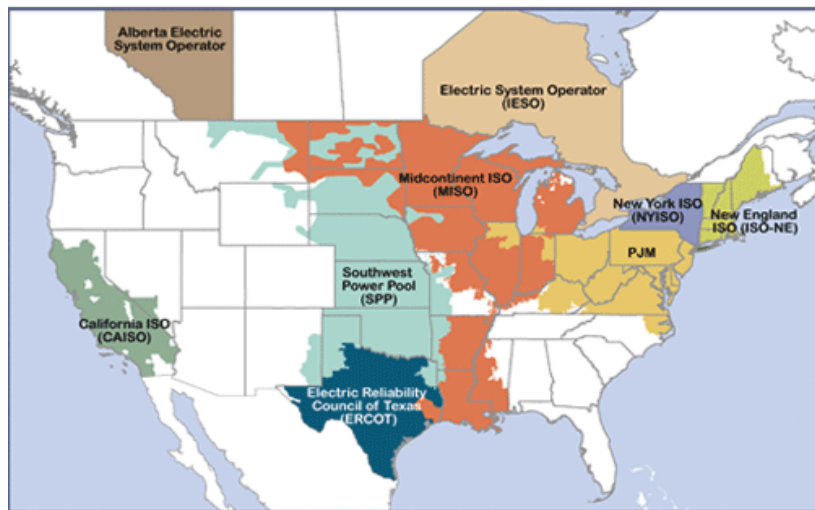
¹¹³ Fed. Energy Reg. Comm’n, *Electric Power Markets: National Overview*.

¹¹⁴ Fed. Energy Reg. Comm’n, *Regional Transmission Organizations (RTOs)/Independent System Operators (ISOs)*. Utilities and other power providers can join or leave an RTO or ISO voluntarily, which is why the RTO/ISO boundaries do not necessarily follow state boundaries.

¹¹⁵ Primarily the Southeast and intermountain West.

¹¹⁶ They may buy and sell wholesale power subject to FERC approval.

RTO/ISO Map



For their part, states also took steps to increase competition in electricity markets starting in the 1990s. Beginning in the late 1990s, many states “restructured” their electricity markets to increase competition and reduce electricity prices. In most cases, states required investor-owned utilities to sell off their electric generation assets, thus creating new opportunities for independent power producers to generate electricity to sell to the utilities in wholesale markets. Today, about half of U.S. states are restructured (primarily the Northeast and Mid-Atlantic states plus Illinois, Ohio, and Texas) and the other half are traditionally regulated. In traditionally regulated states, public utility commissions continue to use cost of service ratemaking to set electricity rates and profits for vertically integrated, investor-owned utilities with monopoly territories.¹¹⁷

Despite these different state regulatory regimes, investor owned utilities and other power companies in both traditionally regulated and restructured states still serve monopoly territories when it comes to providing transmission and distribution line services to retail customers. Thus, in all the states, utility commissions set the rates these entities may charge customers for transmission and distribution services and determine the profits they earn using cost of service ratemaking. Nevertheless, even in the power transmission realm, competition has steadily

¹¹⁷ See U.S. DEP’T OF ENERGY, TRANSFORMING THE NATION’S ELECTRICITY SYSTEM: THE SECOND INSTALLMENT OF THE QER A-10-A-11 (Jan. 2017); LAZAR, *supra* note 109, at 11-15, 18-19. See also William Boyd & Ann E. Carlson, *Accidents of Federalism: Ratemaking and Policy Innovation in Public Utility Law*, 63 UCLA L. REV. 810 (2016) (discussing different models of state electricity regulation).

increased. Since the early 2000s, “merchant” transmission companies have attempted to compete with traditional transmission providers by seeking to build transmission lines in parts of country with transmission congestion or to transport renewable energy to population centers.¹¹⁸ Unlike utilities and other traditional power providers, merchant transmission companies do not own power plants and do not have retail electricity customers but instead seek to earn a profit by selling space on a transmission line to electricity generators on one end of the line, and electricity wholesalers on the other end of the line.¹¹⁹

B. *Transmission Expansion Needs for Increased Renewable Energy Integration into the Grid*

Power providers are ramping up production from utility-scale solar and onshore wind energy, which is now available at record-low prices.¹²⁰ These resources currently make up only about 8 percent of total U.S. electricity generation, but those percentages are much higher—as high as 30 percent for 2017—in some wind-rich states in the Great Plains like Iowa and North Dakota.¹²¹ In 2012 the U.S. Department of Energy found that current technology could eventually shift the United States to 80 percent renewable power. Since that time, wind, solar,

¹¹⁸ Klass, *Takings and Transmission*, *supra* note 26 (discussing merchant transmission line companies).

¹¹⁹ *Id.*

¹²⁰ U.S. ENERGY INFO. ADMIN., LEVELIZED COST AND LEVELIZED AVOIDED COST IN NEW GENERATION RESOURCES IN THE ANNUAL ENERGY OUTLOOK 2018 (Mar. 2018); LAZARD, LAZARD’S LEVELIZED COST OF ENERGY ANALYSIS VERSION 11.0, Nov. 2017; *Local Coal in Wyoming May Not Be So Cheap*, ENERGYWIRE, July 2, 2018 (study showing that even in Wyoming, locally available coal may be a more expensive fuel to generate electricity than wind because of dropping wind costs).

¹²¹ See U.S. Energy Info. Admin., *Wind Turbines Provide 8% of U.S. Generating Capacity, More Than Any Other Renewable Source*, May 2, 2017 (reporting on national and state wind statistics); U.S. DEPT OF ENERGY, 2017 WIND TECHNOLOGIES MARKET REPORT, EXECUTIVE SUMMARY (Aug. 2018), https://www.energy.gov/sites/prod/files/2018/08/f54/2017_wind_technologies_market_report_8.15.18.v2.pdf. Offshore wind in the Atlantic Ocean is also, as of 2018, available at record-low prices. See, e.g., U.S. DEPT OF ENERGY, 2017 OFFSHORE WIND MARKET UPDATE (Aug. 2018), https://www.energy.gov/sites/prod/files/2018/08/f54/71709_0.pdf; Benjamin Storrow, *Cheap Offshore Wind Offers Hope for U.S. Industry*, CLIMATEWIRE, Aug. 6, 2018. Although offshore wind has its own challenges, it generally does not require multi-state transmission lines and thus is beyond the scope of this Article.

and energy storage technologies have advanced significantly and costs to procure these resources have dropped even further.¹²²

The United States will need a massive build-out of long-distance transmission lines to integrate this renewable energy into the electric grid. This is because most large-scale wind resources are far from population centers and not well served by existing transmission lines. The challenge is less dire with regard to utility-scale solar energy, which is well located in the desert Southwest near large cities in Arizona, Nevada, and California, but will nevertheless be underutilized without new transmission. And the full promise of renewable energy will require enough transmission to bring widely-distributed solar and wind resources to the same markets: solar power peaks at mid-day and wind power peaks at night, so together they can provide more constant power. Although some experts argue for a greater reliance on distributed energy and micro-grids to avoid the need for large-scale transmission investments,¹²³ studies show that long-distance transmission will remain an important component of a reduced carbon electric grid for both the short term and long term.¹²⁴

¹²² U.S. ENERGY INFO. ADMIN., *supra* note 120; LAZARD, *supra* note 120; U.S. DEP'T OF ENERGY, 2017 WIND TECHNOLOGIES MARKET REPORT, *supra* note 121. *See also* Benjamin Storrow, *Coal Disappears in the Heartland as Renewables Get Cheaper*, CLIMATEWIRE, Sept. 21, 2018.

¹²³ *See, e.g.*, Shelley Welton, *Non-Transmission Alternatives*, 39 HARV. ENVTL. L. REV. 457 (2015); Brett Feldman, *Non-Wires Alternatives: What's Up Next in Utility Business Model Evolution*, UTILITY DIVE, July 12, 2017; Alex Eller, *Distributed Energy Technologies Challenge Conventional Thinking Around Grid Planning*, ENERGY STORAGE NEWS, Feb. 6, 2018; Jon Wellinghoff, et al., *A Roadmap to the CAISO Transmission Planning Process*, Apr. 10, 2018.

¹²⁴ *See, e.g.*, Alexander E. McDonald, et al., *Future Cost-Competitive Electricity Systems and Their Impact on U.S. CO₂ Emissions*, 6 NATURE CLIMATE CHANGE 523-531 (2016); Eastern Interconnection Planning Collaborative, Phase 2 Report 2-17 (July 2, 2015); JOHANNES PFEIFENBERGER & JUDY CHANG, THE BRATTLE GROUP, TRANSMISSION SAVES CUSTOMER COSTS: IMPROVED TRANSMISSION PLANNING IS KEY TO THE TRANSITION TO A CARBON FREE FUTURE (June 2016); U.S. ENERGY INFO. ADMIN., ASSESSING HVDC TRANSMISSION FOR IMPACTS OF NON-DISPATCHABLE GENERATION (June 2018); Peter Behr, *DOE Searches for Certainty in the Grid's Future*, ENERGYWIRE, Nov. 16, 2018 (discussing DOE National Renewable Energy Laboratory's "Interconnection Seam Study," which explores the benefits of "an overlay of high-voltage direct-current (HVDC) lines [that] would be built across much of the U.S., allowing surplus solar power from the southwestern U.S. to meet peak afternoon loads in the Midwest and Great Plains wind power to reach the West Coast.").

C. *Regulatory Approval of Transmission Lines and Eminent Domain*

Despite the interstate, regional scope of the modern U.S. electric grid and wholesale electricity markets, the regulatory approval and delegation of eminent domain authority for building new interstate and intrastate electric transmission lines remains firmly with the states, subject to narrow exceptions for transmission lines on federal lands, certain hydropower connections, and the like. Although Congress attempted in the Energy Policy Act of 2005 to transfer some transmission line approval authority (also known as “siting” authority) from the states to FERC for interstate lines in regions with significant transmission congestion, courts interpreted that authority very narrowly and it has not been utilized.¹²⁵

In most states, the legislature has granted to state public utility commissions or state public service commissions the authority to approve the “need” for a new transmission line through a process that evaluates the economic and environmental impacts of the line. Such determinations of need are generally a precursor to a finding that the line is also a public use justifying eminent domain.¹²⁶ If the state regulatory authority determines that new transmission is needed within the state to meet reliability needs, obtain lower electricity prices by reducing congestion, or meet state mandated climate or other public policy goals, it grants a certificate of need or a certificate of public convenience and necessity and, in some cases, a separate siting permit or routing permit that sets the precise location of the line. In virtually all states receipt of the required certificate or siting permit also grants the transmission owner the power of eminent domain in the event it is not able to reach voluntary agreements with all landowners for the easements necessary to build the line.

Such blanket designations of public use by statute for particular projects made sense at a time that transmission lines were built to serve new electricity demand. Such lines were needed to serve new customers within an electricity’s provider’s territory; urban or rural expansion of existing customers to new locations; or lines needed to connect new generation resources to meet increasing electricity use by existing customers due to the widespread acquisition of televisions, refrigerators, air conditioners, and garage doors and then, in later years, computers, cell phones, tablets, and the like.

¹²⁵ See, e.g., Alexandra B. Klass & Jim Rossi, *Reconstituting the Federalism Battle in Energy Transportation*, 41 HARV. ENVTL. L. REV. 423, 452-456 (2017) (discussing transmission line siting provisions of Energy Policy Act of 2005 and court decisions).

¹²⁶ See, e.g., *Illinois Landowners Alliance*, 90 N.E.3d 448 (Ill. 2017) (discussing relationship between need determination for certificate of public convenience and necessity and public use determination for use of eminent domain).

However, since *Kelo*, new issues have arisen in the electric transmission realm. Not all transmission line builders today have in-state retail electricity customers to serve. Since approximately 2010, utility commissions and courts have had to address whether merchant transmission line companies have the right to obtain state certificates of need and exercise eminent domain authority to build transmission lines or whether those rights are reserved for traditional transmission providers such as investor-owned utilities, municipal utilities, and rural electric cooperatives. In many states, the statutes delegating such authority are ambiguous, and were written in a way that did not contemplate the existence of a company that would seek to build a transmission line without also either owning electric generation assets in the state or serving retail electricity customers in the state.¹²⁷

Such a narrow scope of public use often does not match the scope of new transmission lines that are designed to transport renewable energy in one direction across several states. Under such a narrow analysis, these lines may constitute a public use for the states sending or receiving the low carbon or low-price electricity but not for the states in between that will host the line but will receive little or no electricity from it. Finally, even with regard to traditional electricity providers, lines today are being built not to meet growing electricity demand, but to accommodate a shift in electric generation resources away from coal and natural gas plants built near population centers toward utility scale wind energy, often located several states away that require long distance transmission. Are lines to accommodate this regional shift in generation resources a public use?

To the extent that existing state laws hinder these projects, the ability to integrate large amounts of renewable energy into the grid may be compromised or at least significantly delayed. As a result, many experts have called for Congress to transfer at least some siting authority for interstate lines to FERC, as was done for interstate natural gas pipelines in the early 20th century, or to create a regional approach to siting transmission lines, perhaps using RTOs

¹²⁷ See Klass, *Takings and Transmission*, *supra* note 26 (discussing state statutory and regulatory barriers for merchant transmission line companies); Klass & Rossi, *supra* note 125 (same). See also *Illinois Landowners Alliance v. Illinois Commerce Comm’n*, 90 N.E.3d 448 (Ill. 2017) (finding that Rock Island Clean Line, a merchant transmission line company, could not seek a certificate of public convenience and necessity to build a transmission line in the state); *Concerned Citizens and Property Owners v. Illinois Commerce Comm’n*, __ N.E.3d __, 2018 Ill. App. (5th) 150551 (Ill. Ct. App., Apr. 17, 2018) (applying *Illinois Landowners Alliance* to hold that Grain Belt Express Clean Line could not seek a certificate in Illinois because it did not yet own, control, or manage plants, equipment, or property in the state to be used in the sale or provision of electricity in the state).

and ISOs as the approval authority.¹²⁸ To date, however, this authority remains squarely with the states.

Historically, environmental groups often opposed the siting and construction of high-voltage transmission lines because of their visible impact on parkland and other scenic and natural areas. In more recent years, however, such groups have often, but not always, supported building these lines, particularly ones proposed to transport large amounts of wind energy that would displace coal-fired electricity and other fossil fuels, thus helping to decarbonize the nation's electricity grid.¹²⁹

Despite the renewable energy benefits associated with these new electric transmission lines, states, counties, and landowners often continue to oppose such lines because of their impact on local land values and aesthetics. Although merchant transmission line companies and other transmission line builders often pay enhanced land values for easements as well as generous tax and other payments to local communities, many still argue that these projects impose excessive harms on local landowners as compared to the benefits that flow to other states. These benefits run to the energy exporting states, which see increased economic development associated with building new renewable energy plants, and also run to the importing states, which can use the renewable electricity to reduce their citizens' electricity bills and meet any carbon reduction or renewable energy goals the state or its municipalities have enacted. These mismatches between local costs and regional or national benefits, with a focus on the use of *Kelo*-style arguments in disputes over the use of eminent domain for these projects, are discussed below.

D. *Transmission Line Eminent Domain as a "Private Taking"*

¹²⁸ See *infra* note 171, and accompanying text.

¹²⁹ See, e.g., Nat. Res. Def. Council, *Support Renewable Energy That Protects the Wild*, <https://www.nrdc.org/issues/support-renewable-energy-protects-wild>; Bob Mayti, *New York Unveils Major Transmission Project to Boost Renewables*, S&P GLOBAL, July 24, 2017 (reporting on environmental group support for transmission line); Chris Malina, *Proposed Wisconsin Transmission Line Splits Environmental Groups in Midwest*, WIS. PUB. RADIO, June 14, 2017; Nichola Groom Reuters, *Power Line Opponents Give Renewables Their Keystone Moment*, ST. LOUIS POST DISPATCH, Oct. 20, 2015; Russell Gold, *Investors are Building Their Own Green Power Lines*, WALL. ST. J., Apr. 6, 2017 (reporting on several proposed long-distance transmission lines designed to transport wind energy in the southwest United States and noting that "[e]nvironmental groups generally support the renewable energy focus of these projects.").

Although landowners have challenged the use of eminent domain for transmission line projects for as long as these projects have been built, such lawsuits were generally unsuccessful. In virtually all states, legislation clearly allows investor-owned utilities and other electricity providers to exercise eminent domain authority by designating such projects as a “public use” or otherwise granting eminent domain authority once the transmission line company obtains any required siting permits or certificates.¹³⁰ For nearly a century, electricity providers built transmission lines to serve new customers as electricity demand continued to grow regionally and nationally. It was fairly easy for state legislatures to declare that providing electricity to state citizens is a public use. As noted earlier, post-*Kelo* legislation in the states did not alter these laws. Nevertheless, since the *Kelo* case, landowners have increasingly raised *Kelo*-style arguments in efforts to portray these projects as “private” takings. They have been aided not only by the public outcry over *Kelo* but also by the changing nature of electric transmission line projects since the *Kelo* case was decided in 2005.

In the post-*Kelo* years, landowners in several states have opposed the use of eminent domain for new transmission lines, arguing that the taking is a “private use” use rather than a “public use” either because management of the line will be transferred to an RTO or because the electricity flowing through the line will benefit electricity customers within a multi-state region in addition to or instead of solely benefitting in-state citizens. For instance, in Oklahoma, landowners challenged the use of eminent domain for a transmission line designed to send wind energy generated in the state to the Southwest Power Pool (“SPP”) RTO and provide additional reliability services for the regional grid. In rejecting the argument that the line was not for a public use, the Oklahoma Court of Appeals held, in *Oklahoma Gas and Electric Company v. Beecher*,¹³¹ that the test was not whether 51 percent or more of the power would go to Oklahoma residents but instead “whether the primary intended beneficiary, considering *all* the factors in the case, is the Oklahoma public and not private or out-of-state entities.”¹³² The court reasoned that even if the utility’s customers would only use 22 percent of the electric capacity of the line through 2020 and the rest would be used by out of state customers, Oklahoma customers were still the primary intended beneficiaries. This was because Oklahoma customers would benefit “as end use consumers of electricity, as well as by the availability of

¹³⁰ See Klass, *Takings and Transmission*, *supra* note 26, at notes 95, 138, 266-275 and accompanying text and App. A (discussing eminent domain laws for transmission lines in all 50 states)

¹³¹ 256 P.3d 1008 (Okla. Ct. App. 2010).

¹³² *Oklahoma Gas and Elec. Co.*, 256 P.2d at 1012 (emphasis in original).

more reliable, efficient, and economical electricity because of regional control and tariff reimbursements by any out-of-state entities using the line.”¹³³

Likewise, in *Montana-Dakota Utilities Company v. Parkshill Farms*,¹³⁴ the South Dakota Supreme Court addressed whether a public utility providing electricity to customers in South Dakota, North Dakota, Montana, and Wyoming could exercise eminent domain to build a 163-mile, 345-kilovolt high-voltage transmission line in partnership with another utility that would run through North Dakota and South Dakota. In rejecting the landowners’ challenge that the project was not a “public use,” the court found that when it comes to public utility projects, the use is “public” if the project is for the benefit of the public and the public has the right to “make use of the service offered at reasonable rates and without discrimination.”¹³⁵

In each of these cases, the state courts rejected the argument that the transmission line in question was a private use rather than a public use. However, in each case the condemning authority was a traditional electricity provider proposing a transmission line that would provide at least some direct benefits to in-state residents by making new energy resources available for direct consumption by state residents or by providing enhanced grid reliability in the state. As more lines are proposed by merchant transmission companies that do not engage in in-state retail sales, or that involve the transport of energy for primarily export through DC lines, many of the traditional public use justifications for transmission lines fall away, leaving courts with more difficult decisions.

For instance, states, cities and, increasingly, investor-owned utilities and other power providers are adopting aggressive plans to transition their generation fleets to renewable energy production in order to move towards a lower carbon electric grid. In 2016, the Massachusetts legislature enacted “An Act Relative to Energy Diversity” setting forth procurement requirements for renewable energy in the state. The law created a competitive bidding process for the state’s public utilities to obtain 1,200 MW of clean energy generation that could consist of

¹³³ *Id.* The court also compared the project to an Oklahoma interstate highway that constitutes a public use even if it may “be used by more out-of-state drivers of vehicles than Oklahoma citizens.” *Id.*

¹³⁴ 905 N.W.2d 338 (2017).

¹³⁵ *Montana-Dakota Utilities Co.*, 905 N.W.2d at 339. *See also* *Grice v. Vermont Elec. Power Co.*, 956 A.2d 561, 571 (Vt. 2008) (landowners challenged eminent domain for transmission line on grounds that the transmission services “do not benefit individual Vermonters and do not benefit all citizens . . .”).

hydropower, onshore wind, and solar resources. The law also required the procurement of 1,600 MW of offshore wind intended to spur development of that industry.¹³⁶

In response to the 2016 Massachusetts legislation, the state issued a “Clean Energy” Request For Proposal and accepted a bid from Eversource Energy, the state’s largest transmission and distribution utility, and Hydro-Quebec in Canada, to bring over 1,000 MW of Canadian hydropower to the state over a new, high voltage, DC transmission line, called Northern Pass.¹³⁷ Northern Pass would run 192 miles from Quebec, through New Hampshire, to Massachusetts. The state required the power to be delivered by 2020 and had selected Northern Pass as the preferred route to deliver the hydropower because it was furthest along in the permitting process and thus was most likely to be able to meet the 2020 deadline.

However, the line faced opposition in New Hampshire over its impact on scenic areas and the local economy,¹³⁸ so the company responded by agreeing to route 60 miles of the line underground as it traveled through the White Mountain National Forest and other sensitive areas; to convert some of the power from DC to AC so it could be used in New Hampshire; and also to contribute nearly \$300 million to the New Hampshire economy in the form of jobs, state and local taxes, energy cost savings, and programs for tourism and other economic

¹³⁶ See Press Release, Mass.gov, *Governor Baker Signs Comprehensive Energy Diversity Legislation*, Aug. 8, 2016. In 2018, Massachusetts enacted new clean energy legislation called “An Act to Promote a Clean Energy Future” that would set new 2030 and 2040 greenhouse gas reduction targets and direct the state to procure additional renewable energy resources through competitive bidding, building on both the 2016 legislation and the state’s 2008 Global Warming Solutions Act. Moreover, one of the state’s largest utilities, National Grid, announced a new “Northeast 80x50 Pathway Plan” to reduce greenhouse gas emissions for New York and New England, including aggressive renewable energy procurements. National Grid, *Northeast 80x50 Pathway*, <http://news.nationalgridus.com/wp-content/uploads/2018/06/80x50-White-Paper-FINAL.pdf>; Robert Walton, *National Grid Targets 80% Carbon Cut Across Buildings, Transport, Power*, UTILITY DIVE, June 18, 2018; Rod Kuckro, *National Grid Plans to Cut Carbon by 80% by 2050*, ENERGYWIRE, June 18, 2018.

¹³⁷ The applicant seeking approval for the line is Northern Pass Transmission LLC, a wholly owned subsidiary of Eversource. See Edison Electric Inst., *Transmission Projects: At a Glance* 67-68 (Dec. 2016). See also Massachusetts Clean Energy, <https://macleanenergy.com/> (discussing RFP process).

¹³⁸ See Meg Dalton, *Exhibit Seeks to Preserve History of Northern Pass Opposition*, ENERGY NEWS NETWORK, Aug. 2, 2018; David Brooks, *From a Procedural Point of View, Rejection of Northern Pass Was Unusual*, CONCORD MONITOR, Feb. 3, 2018; Julian Spector, *The Controversy Surrounding Massachusetts’ \$1.6B Hydropower Transmission Line*, GTM, Jan. 31, 2018; Erin Ailworth, *Transmission Projects Aim to Tap Canadian Hydroelectricity*, BOSTON GLOBE, July 20, 2014 (explaining that opposition to the project was based in part on concerns that the line would allow Canadian hydropower to compete with local renewable energy producers in New England electricity markets).

development. Northern Pass obtained numerous permits for the project, including a Presidential Permit from the U.S. Department of Energy for the international border crossing, and yet the New Hampshire Site Evaluation Committee voted to deny a siting permit for the project in 2018 on grounds that Eversource had not established that the project would not “unduly interfere with the orderly development of the region.”¹³⁹ Even with the modifications described above, the project had been subject to constant attack by landowners and environmental groups over its impact on the scenic resources of the state. Opponents of the project contended it was “neither green nor clean” and that the project proposers were “simply using New Hampshire as a huge extension cord to bring power to Massachusetts and Connecticut.”¹⁴⁰

Massachusetts quickly pivoted to a new project to import Canadian hydropower to the state, this one in partnership with Central Maine Power, the largest public utility in Maine and a subsidiary of Avangard. The proposed transmission line to carry the power is the New England Clean Energy Connect, a 145-mile high voltage DC transmission line from Quebec to Massachusetts through Western Maine solely owned and managed by Central Maine Power.¹⁴¹ Opposition to the project came primarily not from environmental groups, but from other Maine power providers, particularly natural gas and wind generators. They argued the line was not cost-effective for Maine electricity customers and “will smother power generators in Maine while handing cash to Canada.”¹⁴² In a filing with the Maine Public Utility Commission, these parties claimed it was “abundantly clear” that “the project has been proposed solely to meet a Massachusetts policy goal; it has nothing to do with meeting the needs of Maine ratepayers, and the primary long-term benefits of the project will accrue to Hydro-Quebec and [Central Maine Power] shareholders.”¹⁴³

¹³⁹ New Hampshire Site Evaluation Committee, Decision and Order Denying Application for Certificate of Site and Facility (March 30, 2018), https://www.nhsec.nh.gov/projects/2015-06/orders-notices/2015-06_2018-03-30_order_deny_app_cert_site_facility.pdf.

¹⁴⁰ No To Northern Pass, <http://www.notonorthernpass.com/>.

¹⁴¹ New England Clean Energy Connect, <https://www.necleanenergyconnect.org/>.

¹⁴² See Saqib Rahim, *Quebec-to-New England Line Clears Hurdle in Mass.*, ENERGYWIRE, June 24, 2018 (reporting on Massachusetts’ regulatory agency’s approval of power purchases from proposed line but noting continued opposition in some sectors in Maine).

¹⁴³ See Tux Turkel, *Unexpected Foes Emerge to CMP’s Plan to Build Transmission Line to Canada*, PORTLAND PRESS HERALD, Mar. 28, 2018. See also Adrienne Appel, *Avangrid Confident on Approval of New England Hydropower Project*, ENVT. REP., June 22, 2018; *Defeated in N.H., New Hydro Line Could Go Up in Maine*, ENERGYWIRE, July 9, 2018 (discussing potential opposition to Maine transmission line from

Neither regulators nor courts had addressed the issue of eminent domain in connection with transmission lines associated with Massachusetts’ hydropower procurements from Canada as of 2018. Arguments for and against the use of eminent domain, if they arise, will likely be similar to the ones in the cases discussed in the prior section, with some potential important differences. With regard to the similarities, the arguments surrounding private use versus public use and in-state benefits versus out-of-state benefits will be central in any action for eminent domain for any transmission line (whether a merchant line or a public utility line) to bring large amounts of hydropower from Canada to Massachusetts.

What is the “public use” to residents of the state of New Hampshire or to Maine? Certainly, the investor-owned utilities building the line benefit financially from the project either through transmission sales, recovery of investment costs plus a rate of return from customers, or both, as will Hydro-Quebec, a crown corporation in Canada, which will profit from the hydropower sales. The benefits to New Hampshire or Maine through direct electricity procurement are in dispute; most of the electricity would pass through the state on a DC line and opponents claimed there was no evidence the line was needed to meet growth in electricity demand in either state. Many of the economic benefits through jobs, taxes, or community development funds may well fall into the “economic development benefits alone” category that has come under scrutiny in many states in a post-*Kelo* world.

But perhaps there are other public uses or public purposes associated with these projects for purposes of determining whether eminent domain is justified. Is lowering greenhouse gas emissions a public use? Even if the transmission line is mostly serving power users in Massachusetts, Massachusetts’ goals of transitioning away from fossil fuels and lowering greenhouse gas emissions will benefit citizens around the world, including in New Hampshire or Maine. More concretely, expanded transmission infrastructure and increased diversity of power sources will improve grid reliability, resilience, and cyber-security on a region-wide basis and may reduce electricity costs throughout the region, including in New Hampshire and Maine. Must the New Hampshire or Maine legislature expressly embrace these benefits for the power line to be deemed a public use?

Importantly, the question of whether long-distance transmission lines that increase the penetration of utility-scale renewable energy into the U.S. electric grid is a public use will be an issue even in states that do not yet have strong carbon reduction policies. A growing number of large, investor-owned electric utilities in such states have announced plans for billions

local environmental groups who say “the environmental benefits may be oversold—and impacts on the landscape undersold.”).

of dollars of investment in new, utility-scale renewable energy. In many regions of the country, prices for utility scale wind and solar energy are below that of both existing and new fossil fuel generation, and thus can provide significant cost savings for a utility's electricity customers as well as profits for utilities, which can earn a rate of return on these new investments.¹⁴⁴ In addition, utilities have learned they must be responsive to their large corporate and municipal customers that are demanding more and more renewable energy in order to meet self-imposed sustainability and decarbonization goals as well as their own customers' or citizens' demands for sustainable products or "green" power.¹⁴⁵ Many of these utility-led renewable energy projects will require new interstate transmission lines that will likely face litigation over whether they constitute a public use.¹⁴⁶

For instance, Xcel Energy, a large, investor-owned utility with electric generation, transmission, and retail customers in the Upper Midwest (Minnesota, North Dakota, South Dakota,

¹⁴⁴ Krysti Shallenberger, *AEP Proposes \$4.5B to Buy 2 GW Oklahoma Wind Farm*, UTILITY DIVE, July 27, 2017 (discussing low cost of utility scale wind energy); Silvio Marcacci, *Cheap Renewables Keep Pushing Fossil Fuels Away from Profitability—Despite Trump's Efforts*, FORBES, Jan. 23, 2018.

¹⁴⁵ See, e.g., Elisabeth Weise, *Tech Firms like Google, Amazon Push Power Companies Toward Solar and Wind, A Blow To Coal*, USA TODAY, Apr. 22, 2018; Mason Smith, et al., *The Shifting Winds of Near-Term Renewable Energy Demand Drivers*, UTILITY DIVE, Apr. 17, 2018 (discussing how corporate demand for green energy is now driving growth of renewable electricity as much or more so than state policies); Bill Ritter, Jr., *Market Forces Are Driving A Clean Energy Revolution in the US*, THE CONVERSATION, Apr. 20, 2018; Morgan Chilson, *In the Wind: Westar Launches Push to Meet Business Green Energy Needs*, THE TOPEKA CAPITAL-JOURNAL, July 11, 2018 (discussing approval of Kansas utility program designed to allow businesses to access renewable energy in order to meet corporate sustainability goals); Jeffrey Tomich, *Midwest Regulators Approve Wind Subscription Program*, ENERGYWIRE, June 2, 2018 (reporting on Missouri Public Service Commission approval of utility request for green tariff program to respond to utility customers' demands for clean energy).

¹⁴⁶ For a discussion of the extent to which new corporate demand for renewable energy will require expanded transmission infrastructure, see DAVID GARDINER & ASSOC., TRANSMISSION UPGRADES AND EXPANSION: KEYS TO MEETING LARGE CUSTOMER DEMANDS FOR RENEWABLE ENERGY 6 (Jan. 2018) (concluding that significant transmission line expansion is needed to meet growing corporate demand for renewable energy and that such grid expansion will provide increased grid reliability, GHG emission reduction benefits, and cost savings to all electricity customers); WIND SOLAR ALLIANCE, CORPORATE RENEWABLE PROCUREMENT AND TRANSMISSION PLANNING: COMMUNICATING DEMAND TO RTOs NECESSARY TO SECURE FUTURE PROCUREMENT OPTIONS (Oct. 2018) 5 (encouraging corporate consumers of renewable energy to become engaged with regional transmission planning organizations to ensure that sufficient transmission expansion occurs to meet desired renewable energy procurement).

and Wisconsin); Colorado; Texas; and New Mexico¹⁴⁷ is already a leader in integrating wind power into its system. But in 2017 it announced that it planned to invest billions of dollars in new wind projects and accompanying transmission lines. The plans include at least 12 new wind farms in seven states, adding 3,700 MW of new wind capacity to the company's system, and increasing its wind portfolio by 55 percent by the end of 2021.¹⁴⁸ Xcel cites the low cost of wind energy and the reduction of carbon emissions as the driving forces behind this shift.¹⁴⁹ Xcel has also filed a proposed resource plan in Colorado that includes the early retirement of 600 MW of coal-fired generation and installation of 1,800 MW of wind and solar generation, along with new transmission investments, again citing cost savings to customers and carbon reduction benefits.¹⁵⁰ Although some transmission capacity on the Colorado system will be made available through coal plant retirements, the company states it will need to build additional transmission lines to bring wind energy from the most beneficial resource areas of the state and ensure system reliability.¹⁵¹

Other utilities are moving forward with similar renewable energy projects that will undoubtedly require more transmission. Nevada Energy announced a plan in 2018 to add 1,000 MW of utility-scale solar to its portfolio, doubling its current renewable generation capacity.¹⁵² Rocky Mountain Power received preliminary state commission approval in Idaho, Wyoming, and Utah, for 1,150 MW of wind facilities and associated transmission lines at a cost of \$2

¹⁴⁷ Xcel Energy, *Who We Are*, https://www.xcelenergy.com/company/corporate_responsibility_report/who_we_are.

¹⁴⁸ Xcel Energy, *Wind*, https://www.xcelenergy.com/energy_portfolio/renewable_energy/wind; Robert Walton, *Xcel Energy's \$1.6B Wind Plan Advances with New Mexico Approval*, UTILITY DIVE, Mar. 22, 2018.

¹⁴⁹ Xcel Energy, *Wind*, https://www.xcelenergy.com/energy_portfolio/renewable_energy/wind.

¹⁵⁰ Robert Walton, *Xcel Details Plans to Shut 660 MW Coal, Build 1.8 GW Renewables in Colorado*, UTILITY DIVE, June 7, 2018; Xcel Energy/Public Service Company of Colorado, 2016 Electric Resource Plan (CPUC Proceeding No.16A-0396E) 120-Day Report (PUBLIC VERSION) (June 6, 2018) (detailing Colorado Energy Plan Portfolio); Aldo Svaldi, *Xcel Energy Power Plan Would Cut Carbon Emissions by Half, Use Renewable Sources for 55 Percent of Power*, DENVER POST, June 7, 2018.

¹⁵¹ 2016 Electric Resource Plan, *supra* note 150, at 22.

¹⁵² Nevada Energy, Supply Side Plan, Transmission Plan, Economic Analysis, Distribution Planning, and Financial Plan Docket 18-06 pp. 4-8 (Pub. Utils. Comm'n of Nev., Jun. 1, 2018), http://pucweb1.state.nv.us/PDF/AxImages/DOCKETS_2015_THRU_PRESENT/2018-6/30452.pdf.

billion.¹⁵³ Alliant Energy in Iowa plans to spend more than \$2 billion on new renewable energy and double its number of wind sites by 2030.¹⁵⁴ And in Michigan, DTE Energy's 2018 Renewable Energy Plan seeks to double its renewable energy capacity by 2022, primarily through the addition of \$1.7 billion in utility-scale wind investments.¹⁵⁵

While some of these recent proposals are in states that have adopted strong renewable portfolio standards or carbon reduction policies, many are not. Instead, investor-owned utilities are responding not only to state policies favoring renewable energy but also market trends and customer desires.¹⁵⁶ Undoubtedly, the issue of eminent domain will arise in connection with the transmission line component of these projects. That would require these new lines to be a "public use" under state statutes and constitutions.

States could decide that transmission lines to accommodate a power company's shift to renewable energy resources would be a "public use" and "public purpose" because of the benefits of lower electricity costs for customers, greater fuel diversity and grid reliability, and reduced carbon emissions, as well as a financial hedge against future federal or state carbon regulations. But other states might dispute many or all of these benefits. This raises the question of who or what gets to decide the issue of "public use." Is it a single state's governor, or a single state's legislature, or an investor-owned utility working in the interests of its electricity customers and shareholders? What if there are conflicts among those decision-makers? Can a utility or other condemning authority use a state's carbon reduction goals or a renewable portfolio standard to establish a public use? Or is more required? In the past, virtually all companies and governments could agree that grid reliability and expanding electricity service were public uses. The same consensus does not currently exist with regard to energy transition. The next Part addresses these questions and provides a framework for answers.

¹⁵³ Robert Walton, *Idaho Approves \$2 Billion, 1,150 MW in Wind Projects*, UTILITY DIVE, July 31, 2018.

¹⁵⁴ Robert Walton, *Alliant Plans to Eliminate Coal, Cut Emissions 80% by 2050*, UTILITY DIVE, Aug. 3, 2018.

¹⁵⁵ DTE Energy, News Release, *DTE Energy to Double Renewable Energy Capacity by Early 2022*, Mar. 30, 2018.

¹⁵⁶ See *supra* note 145 and accompanying text (discussing utility responses to companies across the country demanding more access to renewable energy to meet corporate sustainability goals and demands for "green" products and services).

V. EMINENT DOMAIN REFORM FOR ENERGY PROJECTS

How should eminent domain be used for energy transport projects built by private companies? In other words, if eminent domain is appropriate for energy transport infrastructure, how should it be invoked? Moreover, if a state wants to encourage or discourage a particular type of energy transport, how might it change its eminent domain laws to accomplish this goal? Finally, what procedures should minimize the harm that it causes to private landowners and ensure that it is used only when necessary?

This Part begins to answer these questions within the context of current disputes over eminent domain for energy projects. First, it evaluates the theoretical justifications for eminent domain. Second, it applies this theory to the question of which energy projects should merit eminent domain? Third, it focuses on the procedures regulators must settle on for invoking eminent domain in a way that maximize its benefits and limit its costs. In addressing each of these points, this Part evaluates a range of potential new policies governing the determination of public use, just compensation, procedural rights, and landowner engagement that may help address some of the present-day conflicts surrounding eminent domain for energy transport projects.

A. *Theoretical Justifications for Eminent Domain*

As long as the state has existed, it has had the power to take private land. It has been justified as an “eminent” and inherent aspect of sovereignty or as a necessary corollary of the state’s protection for private property.¹⁵⁷ But since at least Magna Carta, some sovereigns have promised to provide compensation for the land taken.¹⁵⁸ The U.S. Constitution’s Fifth Amendment promises that the government will not take property “without just compensation.” And modern scholars believe that even this more limited power must be justified based on pragmatic grounds.¹⁵⁹ After all, both conventional wisdom and conventional legal theory provide that what makes a property right different than a contract right is that it may not be

¹⁵⁷ Bell, *supra* note 10, at 526-27 (citing William Michael Treanor, *The Origins and Original Significance of the Just Compensation Clause of the Fifth Amendment*, 94 YALE L. J. 694, 694 (1985)).

¹⁵⁸ Magna Carta 28 (“No constable or other royal official shall take corn or other movable goods from any man without immediate payment, unless the seller voluntarily offers postponement of this.”).

¹⁵⁹ Bell, *supra* note 10, at 527-28.

simply denied in return for compensation.¹⁶⁰ Thus, property rights are more than an entitlement to compensation while eminent domain is an uncomfortable exception to this rule.¹⁶¹

Why are governments sometimes allowed to turn a property right into a mere right to compensation? In the context of economic infrastructure, the most common justification is efficiency, or, more precisely, the necessity of eminent domain to assure efficient construction of infrastructure. Sometimes public infrastructure will require property subject to bilateral monopoly—the infrastructure cannot be built without one piece of land, which the government or construction company must purchase from its owner.¹⁶² The owner may attempt to hold out for the entire economic surplus from the infrastructure proposal, so this bilateral monopoly raises transaction costs and may entirely prevent construction of efficient projects.¹⁶³ This problem is exacerbated in the case of linear projects like highways, transmission lines, and pipelines, where the condemning authority must assemble easements across potentially hundreds of parcels of land, multiplying the potential for holdouts, and justifying the use of eminent domain.¹⁶⁴

Imagine an electric transmission line proposal that is expected to provide a transmission company—Lightning Energy Transport Co.—with a \$200 million per year profit, save consumers \$100 million per year, and ensure \$50 million per year in extra profits for power producers. Further imagine that Lightning has negotiated voluntary easement agreements covering the entire approved route, with the exception of a single farm, held by a farmer named Holdor. How much money should Holdor ask for? If his farm is the only option, why not ask for nearly the entire profit? In fact, why not ask for the extra savings and profits that would otherwise accrue to the gas producers and consumers? After all, shouldn't the power line go forward as long as it provided *some* profit to Lightning, the power producers, and consumers? Why shouldn't the rest go to Holdor?

¹⁶⁰ Guido Calabresi & Douglas A. Melamed, *Property Rules, Liability Rules, and Inalienability: One View of the Cathedral*, 85 HARV. L. REV. 1089, 1092 (1972).

¹⁶¹ EPSTEIN, *supra* note 10, at 161-66, 169-70.

¹⁶² Bell, *supra* note 10, at 529-31.

¹⁶³ *Id.*; Louis Kaplow & Steven Shavell, *Do Liability Rules Facilitate Bargaining? A Reply to Ayres and Talley*, 105 YALE L. J. 221, 223 (1995); *Hathcock*, 684 N.W.2d at 781-82; *supra* notes 35-37 and accompanying text. See also Merrill, *supra* note 10, at 61, 75 (discussing justifications for eminent domain in the context of the difficulty of assembling multiple parcels of land for an oil pipeline because each landowner “is a monopolist, effectively dominating a resource needed to complete the project” and “may be tempted to bargain strategically to appropriate most of the pipeline’s gains to itself.”).

¹⁶⁴ Bell, *supra* note 10, at 529-31, 546, 558-61.

Some might call that result unfair, but the more serious problem is that the transmission line might never be built and all of the economic benefits it would otherwise provide to producers, consumers, Lightning, and Holdor himself might be forgone. Holdor would like to receive the entire economic surplus from the transaction, but he does not know how much surplus there is and may be tempted to hold out for more than is, in reality, available. Linear infrastructure projects like power lines and pipelines present the danger of repeated bilateral monopoly transactions with each landowner—especially when an energy company must stick to an approved route.

Note that this justification—avoiding the bilateral monopoly in constructing infrastructure projects is equally applicable whether infrastructure projects are built by a private company or by the government. In fact, we might be somewhat more concerned about bilateral monopoly shutting down efficient private projects. Private companies presumably will only build projects when they will create economic surplus; government by contrast, might be less constrained by a profit motive.¹⁶⁵ And the text of the Constitution does not explicitly limit eminent domain to land taken for “public use”—instead it simply says that when land is taken for public use “just compensation” must be paid.

The U.S. courts have long insisted that eminent domain is only available for “public use,” but, as noted, have interpreted that term so broadly that it does not substantially narrow the government’s authority. By contrast, the post-*Kelo* reforms tried to limit the use of “economic development” takings, where the only justification was increased tax revenue. But what about the typical eminent domain case—ultimately most uses of eminent domain are based on a judgment that it is a more efficient way to provide a service that could be characterized as “economic”—whether roads or canals, airports or schools, pipelines or electric transmission lines.

Perhaps a project should be seen as for public use whenever it has a sufficient benefit to the public. But how can one measure benefit to the public? If it is measured simply in dollar terms then, again, private company projects might be seen as providing the most “public use,” because they would generally only be pursued if profitable. Even if a utility constructed a power-line entirely for its own use it could be for public use on the assumption that it would mean higher payments for power producers or lower costs for power consumers.

One could argue that for a project to provide “public use” it must benefit a wide swath of customers. But such a requirement can present tricky questions. Should the breadth of a project’s benefits be determined by how many companies use a particular facility? Or should it

¹⁶⁵ Merrill, *supra* note 10.

count consumers and producers that are incidentally benefited? Could a pipeline become a non-public use if a single company suddenly purchased a number of upstream producers?

The conventional wisdom also seems to assume that some economic services are fundamentally public, while others could never be. Transport, power, heating, education, and healthcare are conventionally described as public but other services are not. But what about an amusement park or a lazy-river? They may be for the enjoyment of the public; but are they the type of “public use” that could justify subjecting landowners to eminent domain?¹⁶⁶

Another possible factor that could be considered is the severity of harm from a species of eminent domain. Should the government be more ready to authorize eminent domain when, as with most pipelines, it will only require easements and not destruction of a house? Among easements, should it be more ready to grant eminent domain for underground easements than for visible overhead power line or telecommunication infrastructure?

These criteria loom large in any analysis of the use of eminent domain. The following sections apply these criteria specifically in the context of eminent domain for energy transport infrastructure.

B. *Justifications for Eminent Domain for Energy Projects*

Pipelines and electric transmission lines, like roads, railroads, and other linear infrastructure, present the archetypal bilateral monopoly and holdout problems that typically justify eminent domain.¹⁶⁷ Project owners must submit a proposed route to a state or federal regulator

¹⁶⁶ For decades, these questions have arisen when governments attempt to use eminent domain to build professional sports stadiums. *See, e.g.*, Peter Montine, Note, *Forced Turnovers: Using Eminent Domain to Build Professional Sports Venues*, 9 WASH. J. OF L., TECH., & ARTS 331 (2014); Steven Chen, Note, *Keeping Public Use Relevant in Stadium Eminent Domain Takings: The Massachusetts Way*, 40 B.C. ENVTL. AFF. L. REV. 453 (2013).

¹⁶⁷ *See, e.g.*, *Kohl v. United States*, 91 U.S. 367, 371 (1875) (“If the right to acquire property for [government functions] may be made a barren right by the unwillingness of property-holders to sell . . . the constitutional grants of power may be rendered nugatory, . . . This cannot be.”); *Wayne v. Hathcock*, 398 S.W.3d 472 (Mich. 2004) (discussing need for eminent domain by private parties to address bilateral monopoly and assembly problems); *Chi. & N.W. Transp. Co. v. United States*, 678 F.2d 665 (7th Cir. 1982) (discussing bilateral monopoly concerns and eminent domain); *Pliuria Intervenors v. Ill. Comm. Comm’n*, 2015 WL 2451757 (Ill. Ct. App., May 19, 2015) (granting oil pipeline eminent domain authority under state statute upon evidentiary showing of large number of holdout landowners and good faith negotiations on the part of the pipeline); EPSTEIN, *supra* note 10, at 161-66, 196-70; Bell, *supra* note 10, at 529-31, 546, 558-61 (discussing holdout and bilateral monopoly problems as

to demonstrate the need for the pipeline or transmission line and establish that its environmental footprint will not be too damaging. This requirement severely limits the route that the pipeline or transmission line can follow, which potentially gives every landowner in its path monopoly power to insist on outsized benefits in return for an easement to cross the property. Eminent domain helps solve this problem by assuring no single landowner can hold out for significantly over the easement's adjudicated market value. And eminent domain for pipeline and transmission line projects often does not require taking a landowners' home—instead, they will only have to put up with an easement for a pipeline in the ground or a transmission line overhead. Nevertheless, even if such takings do not eliminate the landowner's occupancy of the land, energy transport easements interfere with landowner's enjoyment of their property in many ways: they can segment the landowner's property in harmful ways, pipelines can expose residents to the potential adverse effects of oil and gas leaks and spills, and the sight of clear-cut easements or power lines may fundamentally alter the character of a landowner's cherished views. Moreover, such “partial takings” are inherently difficult to value, resulting in more uncertainty surrounding whether landowners have in fact received just compensation.¹⁶⁸

Importantly, not all pipelines and transmission lines provide equally wide benefits to the public. For instance, some may be designed to export power from the state or country. Imagine a transmission line designed to carry wind power from Oklahoma, across Arkansas, to consumers in Tennessee. A variety of consumers would benefit in Tennessee. But in Oklahoma, only wind producers would benefit. And in Arkansas, the primary economic benefit would be to parties in the transmission line's path that would be paid for their easements as well as potential tax benefits to local counties; such benefits—if they are even viewed as such by landowners—would presumably not be enough to justify involuntary use of eminent domain. Similarly, an oil or gas pipeline for domestic or international export might only benefit producers in the exporting state—is such a benefit wide enough to justify eminent domain? Note that one problem with demanding a widespread in-jurisdiction benefit is that it would seem to inherently disfavor interstate electric transmission lines, which are needed to move the United States to clean energy sources.¹⁶⁹ Moreover, for all types of energy infrastructure, once a project is designed to export the energy resource rather than to distribute it to in-state

justifications for both government and private eminent domain); Abraham Bell & Gideon Parchomovsky, *Partial Takings*, 117 COLUM. L. REV. 2043, 2051 (2017) (noting that partial takings, such as easements, “paradigmatically implicate the core justifications for the existence of the power of eminent domain” because of their high transaction costs and holdout problems).

¹⁶⁸ Bell & Parchomovsky, *supra* note 167, at 2052-54

¹⁶⁹ See *supra* Part IV.

or in-country citizens, it becomes more difficult to justify it as a public use apart from its “economic development” benefits, which may prove problematic in a post-*Kelo* world.¹⁷⁰

Finally, does energy provide the kind of publicly necessary service that justifies eminent domain? Power and natural gas are typically provided by utilities that are subject to regulation, which makes them responsible to make reliable service widely available. Perhaps that marks their products as providing an inherently public benefit. Oil might also be considered a fundamental public use, given the public’s overwhelming dependence on oil in the transportation sector. On the other hand, if a jurisdiction was particularly concerned about climate change, it might judge that fossil fuels no longer provide a public benefit. Thus, the propriety of eminent domain for energy transport may depend on state-by-state policy.

The question then arises whether a state-by-state approach to public use for different energy resources is appropriate in our federalist system of government, or whether the interstate flow of energy is so important to the national economy and citizen well being that it must be a public use in every state. Scholars have long debated whether the United States has ever had a “national energy policy” or merely a patchwork of laws and policies governing various energy resources and markets.¹⁷¹ Putting those general debates aside, it is clear that Congress determined in the Natural Gas Act of 1938 that the national interest interstate flow of that resource justifies nationwide eminent domain for interstate natural gas pipelines.¹⁷² Congress has, to date, not made that determination for the flow of oil or electricity, leaving eminent domain for interstate oil pipelines and interstate electric transmission lines overwhelmingly to the states.

For years, scholars and other experts have argued that Congress should eliminate or significantly reduce the ability of states to block interstate electric transmission lines, either by creating federal siting and eminent domain authority, enhancing regional authority, or by imposing federal standards on state permitting procedures, similar to those in the Telecommunications Act of 1996 governing the siting of cell phone towers.¹⁷³ Proponents of greater

¹⁷⁰ See *supra* note 93 and accompanying text (discussing cases finding no public use for such projects).

¹⁷¹ See, e.g., Lincoln L. Davies, *Tracing U.S. Renewable Energy Policy*, 43 ENVTL. L. REP. 10320, 10321-24 (2013) (discussing scholarly debates over U.S. national energy policy or lack thereof).

¹⁷² See Klass & Meinhardt, *supra* note 29, at 994-99 (discussing justifications given for creation of federal authority over interstate natural gas pipeline siting and eminent domain).

¹⁷³ See, e.g., Ashley Brown & Jim Rossi, *Siting Transmission Lines in a Changed Milieu: Evolving Notions of the “Public Interest” in Balancing State and Regional Considerations*, 81 U. COLO. L. REV. 705, 741-48 (2010); Jim Rossi, *The Trojan Horse of Transmission Line Siting*, 39 ENVTL. L. 1015, 1017 (2009); Alexandra

federal or regional authority stress that the modern U.S. electric grid is regional and national in scope, and thus a state-based approach to determinations of public need and public use no longer match the physical contours of the grid even if they did when the grid was first built. Although there are certainly benefits to a federal or regional approach, there appears to be no will in Congress to make such a dramatic change, which would meet with strong resistance by virtually every state. Even beyond the political difficulties, there remain real questions whether a federal desire for streamlined oil, gas, and electric transmission infrastructure should always override state preferences regarding the protection of land and natural resources and the types of energy resources to promote or restrict. As a result, the remainder of this Part focuses on the states, and how they can develop more specific policies to accelerate or impede development of energy transport infrastructure. Some may trigger constitutional concerns, such as discrimination against interstate commerce, but there remains significant leeway for action.

C. *Revised Policies for Eminent Domain for Energy Projects*

Given the past decades of ferment, first in government use of eminent for economic development and now in increased use of eminent domain by private companies for energy transport, this section looks at past and future lawmaker responses. The variety of potential approaches reflects the different theories of when eminent domain can and should be used and also whether policymakers wish to make the use of eminent domain easier or more difficult for certain types of projects.

For instance, states that want to expand oil and gas transport infrastructure to promote resource production have tools available to streamline the process or define public use in ways that support those projects. Likewise, states that wish to increase the use of renewable energy resources, particularly in electricity, and phase out fossil fuels can make eminent domain easier for favored projects and more difficult for disfavored projects. Moreover, one or more states may attempt to prevent neighboring states from interfering with state preferences that may provide public benefits that cross state lines. Finally, policymakers can adjust the requirements

B. Klass & Elizabeth J. Wilson, *Interstate Transmission Challenges for Renewable Energy: A Federalism Mismatch*, 65 VAND. L. REV. 1801, 1859-65 (2012); James J. Hoecker & Douglas W. Smith, *Regulatory Federalism and Development of Electric Transmission: A Brewing Storm?*, 35 ENERGY L.J. 71 (2014); Joel F. Zipp, *Amending the Federal Power Act: A Key Step Toward an Energy Security and Supply Act of 2009* for the New Administration, 21 ELEC. J. 6 (2008). For a discussion of the Telecommunications Act of 1996 and its potential application to electric transmission line siting as well as renewable energy generation facilities, see Ashira Pelman Ostrow, *Process Preemption in Federal Siting Regimes*, 48 HARV. J. ON LEGIS. 289, 293 (2011); Alexandra B. Klass, *The Electric Grid at a Crossroads: A Regional Approach to Siting Transmission Lines*, 48 U.C. DAVIS L. REV. 1895, 1951-52 (2015).

for just compensation and increase landowner procedural rights. This Part uses several examples to illustrate these points and lays the groundwork for a more robust evaluation of public use and just compensation in the context of eminent domain for energy transport projects.

1. Redefining “public use” for energy transport projects

First, states could decide as a matter of policy that some energy projects represent a “public use” while others do not. For example, states like California, New York, Massachusetts, Oregon, and others that are aggressively seeking to phase out fossil fuels may decide that fossil fuel transport is no longer a public good.¹⁷⁴ On the other hand, states that are opposed to further renewable power imports or exports could block use of eminent domain for projects that would transmit power from such sources. States could also declare that power transport only supports “public use” if the state public utility commission finds that it serves certain values such as increasing the reliability, affordability, or sustainability of the power grid. Depending on how those considerations were defined, it could potentially benefit one or the other energy source. As a result, eminent domain would act as a policy tool, just like mandates or tax incentives, to support favored sources. Although the dormant Commerce Clause and other federal constitutional provisions place some limits on state action,¹⁷⁵ there is still significant room for a more nuanced approach to public use and eminent domain that reflects the growing diversity of state preferences in this arena.

As another example, in states like Texas, pipeline companies can decide for themselves that eminent domain is necessary as long as they show they will make the pipeline available to other customers.¹⁷⁶ Is this much deference to pipeline companies acceptable? That determination by the pipeline company is subject to judicial review if there is a challenge to the use of eminent domain, but that review is very deferential—akin to the deference given to a state agency determination of public use.¹⁷⁷ When a landowner in Texas challenged this process,

¹⁷⁴ One California Public Utility Commission decision found no need for a new natural gas pipeline based on the trend away from fossil fuels and toward renewables. *In re San Diego Gas & Electric Co.*, No. A1509013 (Cal. PUC, June 26, 2018); *supra* note 91.

¹⁷⁵ See *infra* notes 178-179 and accompanying text.

¹⁷⁶ See *Pipeline Eminent Domain and Condemnation*, Railroad Commission of Texas, <http://www.rrc.state.tx.us/about-us/resource-center/faqs/pipeline-safety-faqs/faq-pipeline-eminent-domain-and-condemnation/>; *Denbury Green Pipeline v. Texas Land Rice Partners*, 510 S.W.3d 909 (Tex. 2017); *Texas Rice Land Partners, Ltd. v. Denbury Green Pipeline—Texas, LLC*, 363 S.W.3d 192 (Tex. 2012); *Klass & Meinhardt*, *supra* note 29, at 984.

¹⁷⁷ *Boerschig v. Trans-Peco Pipeline*, 872 F.3d 701, 708-09 (5th Cir. 2017) (Texas delegation to oil companies to determine whether a pipeline is a “public use” for purposes of exercising eminent

the U.S. Court of Appeals for the Fifth Circuit found in 2017 that the delegation of eminent authority to a private party under those circumstances does not violate the non-delegation doctrine or due process protections.¹⁷⁸ Texas may support this level of deference because of the importance of the oil and gas industry to the state. But other states could decide to reduce or eliminate the power of pipeline companies to make such public use determinations to slow down certain types of fossil fuel development or, in the alternative, to enhance the power of transmission lines companies to make such determinations to enhance renewable energy development.

States have historically lumped many different types of energy infrastructure projects together when it comes to eminent domain—treating oil pipelines, gas pipelines, and power lines alike. The public and legislative reaction to the *Kelo* decision illustrates that lawmakers can eliminate or significantly weaken eminent domain authority for certain types of projects. Just as lawmakers and voters reduced or eliminated the use of eminent domain for economic development takings a decade ago in many states, there may be reason to make similar changes with regard to eminent domain for certain energy projects.

Notably, states like Georgia and South Carolina have expressly limited eminent domain for oil pipelines, New York has used its Clean Water Act authority to attempt to stop certain natural gas pipelines, and New Hampshire has used its siting authority to block an interstate electric transmission line. Perhaps it is preferable for states to enact new policies that cover an entire category of energy transport project, like Georgia and South Carolina in the case of oil pipelines, rather than through selected denials of disfavored projects through the permitting process, like New York and New Hampshire. Proceeding in this manner would allow states to engage in policy experimentation and groups of states may ultimately find consensus on how to proceed rather than each acting on their own through separate permitting processes governing individual projects. Moreover, if no consensus emerges among the states, and the barriers to infrastructure investment in renewable energy projects, fossil fuel projects, or both, are perceived as too high, the argument becomes even stronger for federal intervention and potential preemption of state authority for certain types of infrastructure. In any event, this process would move the debates out of the agency permitting process and into the legislative arena, which may result in a more public evaluation of costs and benefits.

domain does not violate non-delegation doctrine or due process and is subject to limited judicial review). *See also* *Cox v. Ohio*, 2016 WL 4507779 (N.D. Ohio 2016) (rejecting claim that Ohio legislative delegation to pipeline company to select route and initiate eminent domain proceedings for oil pipeline without regulatory oversight violates landowners' civil rights under 42 U.S.C. § 1983 or violates the non-delegation doctrine).

¹⁷⁸ *Boerschig*, 872 F.3d at 708-09.

One might argue that competing state policies to encourage or discourage different types of energy transport infrastructure will result in the inefficient use of energy resources and will discourage investment in critical infrastructure projects. While that is certainly true, this criticism minimizes the reality that such competing and contrasting policies in the states already exist when it comes to renewable energy and fossil fuel generation facilities—through differences in renewable portfolio standards, tax incentives for fossil fuel or renewable energy development, and the like. It may be that in this time of energy transition, a variety of state approaches to energy transport are not only defensible but helpful for long-term policy development.

2. *Addressing neighboring state barriers to energy projects*

Second, new state policies governing public use for energy projects may run into competing policies in neighboring states. For instance, a state may have enacted energy policies such as a renewable portfolio standard or a carbon reduction mandate. To meet those goals or mandates, the state may wish to import renewable energy from neighboring states or countries. In the context of Massachusetts's desire to import hydropower from Quebec, discussed in Part IV, Massachusetts may attempt to rely on its existing energy policies or enact new ones to demonstrate that energy transport has wider benefits than the narrow economic benefits received by energy producers and consumers. For example, even if New Hampshire's power producers and consumers would receive little benefit from a new transmission line that brought hydropower from Quebec to Massachusetts, eminent domain could be justified by the project's potential to address climate change. If the project allowed Massachusetts to replace fossil fuels with hydropower, the reduced greenhouse gas emissions would benefit every person on the planet, including New Hampshire citizens.

For its part, New Hampshire might argue that Massachusetts does not have the right to make that policy determination for New Hampshire and require New Hampshire businesses and citizens to subject themselves to a transmission line they do not want in order to serve Massachusetts' climate policy goals. However, as the electricity will be flowing in interstate commerce, Massachusetts may argue that the dormant Commerce Clause of the U.S. Constitution requires that states not unduly limit the use of eminent domain to support interstate commerce. The prohibitions of the dormant Commerce Clause that forbid states from discriminating against interstate trade or unduly burdening interstate commerce might place some constraints on a state's authority to ignore out-of-state benefits of interstate transmission lines.¹⁷⁹ If states were forced to consider the wider benefit from power transmission, it would

¹⁷⁹ *Oregon Waste Systems, Inc. v. Department of Environmental Quality of Ore.*, 511 U.S. 93 (1994); Alexandra B. Klass & Jim Rossi, *Revitalizing Dormant Commerce Clause Review for Interstate Coordination*, 130 MINN. L. REV. 129 (2015).

make review of interstate power lines more like review of interstate natural gas pipelines, which are frequently justified based on their benefits to consumers and producers in different states. Although the Natural Gas Act of 1938 represents a Congressional mandate for a consideration of costs and benefits with a nationwide scope when it comes to interstate natural gas pipelines, there is the potential for the dormant Commerce Clause to prompt a similar evaluation when it comes to interstate electric transmission lines.¹⁸⁰ Moving in this direction would also provide judicial correction to the current status quo that favors natural gas transport over power transport.

3. *Policy experimentation with enhanced compensation and procedural rights*

Third, states can continue experimenting with different compensation methods or procedures to balance some of the costs and benefits of eminent domain for energy transport. The Fifth Amendment says that landowners must be paid “just compensation” for their land, which has typically been interpreted as “fair market value.”¹⁸¹ But calculating fair market value is challenging—after all, eminent domain is necessary because the parties could not agree on a price for the land. In theory, states or the federal government could limit eminent domain and protect landowners by requiring above-market compensation. If a pipeline or power line truly promises massive benefit, perhaps burdened landowners should receive a premium. Government actors can shift the costs and benefits of eminent domain through a variety of policies, including enhanced compensation options, expanded landowner rights regarding the scope of the parcel to be acquired through eminent domain, expedited review of public use determination prior to physical occupation of the property, and encouraging the condemning authority to engage in greater community involvement before any eminent domain action. Each of these options is discussed below.

(a) *Enhanced compensation*

States could demand greater compensation for use of eminent domain for some or all energy transport projects. Scholars including Richard Epstein, Thomas Merrill, Lee Anne

¹⁸⁰ See Klass & Rossi, *supra* note 179 (discussing how state laws that prevent non-incumbent utilities from building transmission lines in or through the state may violate the dormant Commerce Clause). But see LSP Transmission Holdings v. Lange, 2018 WL 3075976 (D. Minn., June 21, 2018), *appeal filed* (July 24, 2018) (rejecting dormant Commerce Clause challenge to state “right of first refusal” law to build electric transmission lines in Minnesota).

¹⁸¹ United States v. 564.54 Acres of Land, 441 U.S. 506, 511-513 (1979) (“Under this standard, the owner is entitled to receive ‘what a willing buyer would pay in cash to a willing seller’ at the time of the taking.”) (quoting United States v. Miller, 317 U.S. 369, 374 (1943)).

Fennell, Michael Heller, Rick Hills, Nestor Davidson, Christopher Serkin, and James Krier have long discussed the concern that the standard fair market value approach to just compensation may systematically undercompensate landowners for their property where the land may have a high subjective value to the owner or where it would be unfair to award the entire surplus value of the land transfer to the condemnor.¹⁸² Some of these scholars have suggested that courts or legislatures could address such under-compensation concerns through awarding landowners a fixed percentage over fair market value (e.g., 125%, 150% of fair market value) as part of the condemnation award.¹⁸³ After the *Kelo* case, several state legislatures adopted these proposals and enacted reforms that require enhanced compensation of a fixed percentage over fair market value for condemnation of a primary residence or agricultural land.¹⁸⁴ States could require a similar type of enhanced compensation for energy transport projects or a subset of projects that were disfavored by state policy. And should landowners receive any kind of funding to support legal challenges to eminent domain? Some states also encourage condemning authorities to offer landowners more money by awarding attorneys' fees to landowners when a court awards just compensation in an amount greater than the authority's last offer.¹⁸⁵

Another option is for states to require that condemning authorities give landowners an equity stake in any pipeline or transmission line that crosses their lands or otherwise tie

¹⁸² EPSTEIN, *supra* note 10, at 173; Merrill, *supra* note 10, at 83, 86; Michael Heller & Rick Hills, *Land Assembly Districts*, 121 HARV. L. REV. 14655, 1477-78 (2008); James E. Krier & Christopher Serkin, *Public Ruses*, 2004 MICH. STATE L. REV. 859, 865-72 (2004); Nestor M. Davidson, *Property and Relative Status*, 107 MICH. L. REV. 757, 810 (2009); Lee Anne Fennell, *Taking Eminent Domain Apart*, 2004 MICH. ST. L. REV. 957, 961-62 (2004).

¹⁸³ EPSTEIN, *supra* note 10, at 173 (suggesting awarding landowners 150% of fair market value in some circumstances); Merrill, *supra* note 10, at 90-91 (describing enhanced compensation options but expressing concerns). *See also* Brian Angelo Lee, *Just Undercompensation: The Idiosyncratic Premium in Eminent Domain*, 113 COLUM. L. REV. 593 (2013) (critiquing theories of undercompensation and arguing against awards of fixed percentages above fair market value).

¹⁸⁴ *See* Lee, *supra* note 183, at 634-35 (2013) (discussing laws in Michigan, Indiana, Missouri, Iowa, Connecticut, and Rhode Island); Katrina Miriam Wyman, *The Measure of Just Compensation*, 41 U.C. DAVIS L. REV. 239, n.61 (2007) (citing laws in Michigan, Indiana, Kansas, and Missouri).

¹⁸⁵ *See, e.g.*, MINN. STAT. § 117.031 (providing for award of attorneys fees, litigation expenses, expert fees, appraisal fees, and other costs to landowner if the final judgment or award is more than 40 percent greater than the last written offer of compensation by the condemning authority prior to filing the petition for eminent domain or if a court determines the taking is not for a public use); IND. CODE §§ 32-24-1-14 to -15 (providing for award of expenses, including attorneys fees if damages awarded are greater than last written settlement offer); Wyman, *supra* note 181, at 256.

compensation to the value of the project rather than the fair market value of the land.¹⁸⁶ Such arrangements are common in the energy resource extraction context, where landowners receive significant, annual payments for oil and gas wells located on their property or for hosting wind turbines.¹⁸⁷ Such payments are made as a matter of contract law, and reflect enhanced landowner bargaining authority as a result of state allocation of resource ownership, the lack of eminent domain authority, or both. The same is true for rights of way across tribal lands, where utilities and pipeline companies do not have eminent domain authority and must obtain the tribe's consent to access the land.¹⁸⁸ In those situations, tribes have in some cases negotiated long-term right of way payments that include tens of millions of dollars in annual payments based on the value of the gas or other resource to be transported through the pipeline in addition to the fair market value for the pipeline easements.¹⁸⁹ Likewise, when the federal government grants rights of way to wind and solar companies on federal lands, the payment

¹⁸⁶ See Keliann Chamberlain, *Unjust Compensation: Allowing a Revenue-Based Approach to Pipeline Takings*, 14 WYO. L. REV. 77, 87-99 (2014) (summarizing a variety of potential state reforms for just compensation for pipeline takings, including percentage enhancements over fair market value, annual payments, and revenue-based approaches based on value of the project rather than value of the easement).

¹⁸⁷ See, e.g., ALEXANDRA B. KLASS & HANNAH J. WISEMAN, *ENERGY LAW: CONCEPTS AND INSIGHTS* 47-50 (Foundation Press 2017) (discussing royalty payments for oil and gas leasing); Jennifer Oldham, *Wind Is the New Corn for Struggling Farmers*, BLOOMBERG BUSINESSWEEK, Oct. 6, 2016 (discussing landowner payments for wind turbines).

¹⁸⁸ See *Public Serv. Co. of New Mexico v. Barboan*, 857 F.3d 1101 (10th Cir 2017); Paul E. Frye, *Section 1813 of the Energy Policy Act of 2005: Implications for Tribal Sovereignty and Self-Sufficiency*, 42 TULSA L. REV. 75 (2006); Phil McKenna, *Wisconsin Tribe Votes to Evict Oil Pipeline From Its Reservation*, INSIDE CLIMATE NEWS, Jan. 16, 2017.

¹⁸⁹ See, e.g., *Jicarilla Apache Nation and Enterprise Announce Long-Term Right-of-Way Agreement*, BUSINESS WIRE, June 8, 2009) (reporting on right of way agreement across tribal land for gas pipeline infrastructure that involves both “a fixed component” as well as opportunities for the tribe “to benefit from changing market conditions for energy commodities”); THE WILLIAMS COMPANY, 2012 ANNUAL REPORT 83 (2012) (“We are required to make a fixed annual payment [to the Jicarilla Apache Nation] of \$7.5 million and an additional annual payment, which varies depending on per-unit [natural gas liquid] margins and the volume of gas gathered by our gathering facilities subject to the right-of-way agreement. . . . The variable portion to be paid in 2013 based on 2012 gathering volumes is \$7.3 million and is included in the table for year 2013.”); El Paso Natural Gas Co., Notice of Rate Change, Docket No. RP08-426-000, Vol. 4, Binder 2, Statement P, Prepared Testimony of H. Lynn Dougherty, pp. 8-10 (FERC June 30, 2008) (prepared testimony on gas pipeline right of way costs through Navajo Nation that include annual payments of \$18 million tied to consumer price index).

for the right of way includes a “Megawatt Capacity Fee” that “reflects the industrial use value of the land to generate electricity” in addition to an annual acreage rent.¹⁹⁰

In the transmission line context, compensation could reflect the reality that the wind farm or other electricity generation project cannot be built without the accompanying transmission line. Based on this fact, compensation for the transmission line could be tied to the value of the project as a whole (generation plus transmission), thus giving the landowners who will be hosting the transmission line a stake in the entire project akin to that given to landowners who will be hosting the wind turbines or other electricity generation facilities.¹⁹¹

The same rationale can apply to the importance of pipelines to the overall oil and gas project. Along those lines, in 2017, a bill was introduced in the West Virginia legislature to provide compensation for pipeline easements taken by eminent domain based on the value of the gas flowing through the pipeline over time rather than a one-time easement payment based on the fair market value of the land to be taken.¹⁹² Laws of this type may better recognize not only the value of the land to the owner, but also the value of the land to the project proposer. Although historically just compensation has not been based on these considerations, states can change that as a matter of policy.

(b) Expanded landowner option rights for parcel acquisition

Another option to enhance landowner bargaining authority in the eminent domain context is to give landowners the right to demand that energy companies seeking to acquire easements by eminent domain purchase the entire estate rather than merely the easement the company desires for the project. Minnesota created this requirement, colloquially known as the “Buy the Farm” law, for electric transmission lines in the 1970s in the wake of controversial transmission line expansion projects at that time.¹⁹³ Professors Abraham Bell and Gideon

¹⁹⁰ See U.S. Bureau of Land Mgmt., Instruction Memorandum, Acreage Rent and Megawatt Capacity Fees (Years 2016-2021) for Solar and Wind Energy ROW Grants and Leases (Sept. 14, 2017).

¹⁹¹ See, e.g., Nicholas P. Laurent, et al., *Compensation in Power Line and Pipeline Cases: New Thoughts on an Old Subject* (ABA Section of Real Property Oct. 13, 2017), <http://apps.americanbar.org/dch/committee.cfm?com=RP231000> (suggesting alternative means of compensating for eminent domain for pipelines and power line easements, including through royalties).

¹⁹² See Linda Harris, *Pipeline Bills Aimed to Protect Landowners, Not Making Much Headway*, THE STATE J., Feb. 26, 2018; W. VA. HOUSE BILL 3011 (introduced March 14, 2017); David McMahon, *Debating “Public Use” and Its Worth to Landowners*, THE STATE J., Mar. 8-12, 2017 (discussing bill).

¹⁹³ Minn. Stat. § 216E.12, subd. 4 (2016); *Great River Energy v. Swedzinski*, 860 N.W.2d 362 (Minn. 2015) (upholding landowner’s election that utility purchase entire fee interest rather than an easement).

Parchomovsky have suggested that similar requirements be imposed for all cases of “partial takings.”¹⁹⁴ States could adopt such a requirement for all types of energy transport projects, or selected ones.¹⁹⁵ States also could demand that easements be of limited term so that they would have to be periodically renegotiated or, if necessary, re-established with a new valuation in new eminent domain proceedings.¹⁹⁶ Such limited term easements may be particularly attractive in light of the present-day uncertainty regarding what our energy future will look like—it remains unclear how long the nation will wish to continue to rely on oil pipelines, gas pipelines, and even long-distance transmission lines as the country transitions to a more renewable, flexible, and in some cases, localized, energy future.¹⁹⁷ There are many such possibilities to improve compensation for eminent domain or to reallocate bargaining authority between landowners and condemning authorities.¹⁹⁸

(c) *Expedited review of public use determinations*

As noted in Part III, another currently contested question is whether landowners should be allowed to challenge the use of eminent domain in court before it is exercised on their land. FERC’s practice of tolling requests for reconsideration means that natural gas pipelines are often built before landowners can get a court to hear their objections to the use of eminent

interest under “Buy the Farm” law); Northern States Power Co. v. Aleckson, 831 N.W.2d 303 (Minn. 2013) (applying and interpreting “Buy the Farm” law); Tom Teigen, Center for Rural Policy and Development, *CapX2020 and “Buy the Farm”: Putting Property Rights to the Test* (Winter 2014).

¹⁹⁴ Bell & Parchomovsky, *supra* note 166 (discussing ubiquitous nature of partial takings and difficulties of adequately determining just compensation for such takings).

¹⁹⁵ See, e.g., MINNESOTA ENVIRONMENTAL QUALITY BOARD, INTERAGENCY REPORT ON OIL PIPELINES 84 (Dec. 2015) (reporting on suggestion that Minnesota Buy the Farm law be extended to oil pipelines in the state).

¹⁹⁶ Chamberlain, *supra* note 184, at 100-101 (suggesting that required revenue-based payments will promote greater use of term easements that revert to the fee owner upon abandonment of project).

¹⁹⁷ See *supra* note 123 and accompanying text (discussing greater focus on microgrids).

¹⁹⁸ See, e.g., Janice Nadler & Shari Seidman Diamond, *Eminent Domain and the Psychology of Property Rights: Proposed Use, Subjective Attachment, and Taker Identity*, Working Paper (2008) <https://scholarlycommons.law.northwestern.edu/facultyworkingpapers/160> 14-15; Michael Diamond, “Energized” Negotiations: Mediating Disputes over the Siting of Interstate Electric Transmission Lines, 26 OHIO ST. J. ON DISPUTE RESOLUTION 217, 243-245 (2011).

domain.¹⁹⁹ To date, FERC and federal courts have rejected landowner challenges to this practice, as well as facial challenges to Congress’s delegation of broad eminent domain authority to natural gas pipelines companies holding a FERC certificate.²⁰⁰ Both FERC and Congress should consider whether the burden that eminent domain imposes justifies judicial review before it is imposed to build interstate natural gas pipelines. The same goes for state policy-makers in the context of oil pipelines, electric transmission lines, and intrastate natural gas pipelines.

(d) *Improved community involvement*

Finally, project proposers may be able to increase acceptance of eminent domain from landowners by creating more early, community involvement in decisions on energy transport.²⁰¹ Because eminent domain is such a salient exception to the rule that property rights may only be relinquished voluntarily, it may be particularly important to find ways to ameliorate the psychological shock it may present.²⁰² One option is for greater use of “community benefit agreements,” which have been used for large-scale urban redevelopment projects (such as the Atlantic Yards redevelopment in New York City) as well as for wind energy development projects in some states.²⁰³ Such agreements involve payments by the developer

¹⁹⁹ Berkley v. Mountain Valley Pipeline, 896 F.3d 624 (4th Cir. 2018) (discussing plaintiffs’ argument that FERC tolling orders effectively preclude judicial review of propriety of eminent domain prior to pipeline’s construction).

²⁰⁰ Berkley v. Mountain Valley Pipeline, 896 F.3d 624 (4th Cir. 2018); Berkley v. Mountain Valley Pipeline, 2017 WL 6327829 (W.D. Va., Dec. 11, 2017); Ellen Gilmer, *Appeals Court Tosses Major Challenge to FERC Eminent Domain Use*, ENERGYWIRE, July 26, 2018. *See also* Mountain Valley Pipeline LLC v. Simmons, 307 F. Supp. 3d 506 (N.D. W. Va. 2018); In re Mountain Valley Pipeline, 136 FERC ¶ 61,197, at 34-50 (June 15, 2018) (order on rehearing).

²⁰¹ *See, e.g.*, Alexandra B. Klass, *Expanding the U.S. Electric Transmission and Distribution Grid to Meet Deep Decarbonization Goals*, in Michael B. Gerrard & John Dernbach, eds., *LEGAL PATHWAYS TO DEEP DECARBONIZATION IN THE UNITED STATES* (2018) (describing approaches to reduce landowner opposition to electric transmission line projects).

²⁰² *See* Brandon Gerstle, *Giving Landowners the Power: A Democratic Approach for Assembling Transmission Corridors*, 29 J. ENVTL. L. & LITIG. 535 (2014) (white paper for Center for Rural Affairs).

²⁰³ *See* PUBLIC LAW CENTER, SUMMARY AND INDEX OF COMMUNITY BENEFIT AGREEMENTS (2011); Edward W. De Barbieri, *Do Community Development Agreements Benefit Communities?*, 37 CARDOZO L. REV. 1773 (2016); ME. REV. STAT. tit. 35-A, §3451(1-B) (defining “community benefit agreement”); LeRoy C. Paddock & Max Greenblum, *Community Benefit Agreements for Wind Farm Siting in Context*, in L. BARRERA-HERNANDEZ ET AL., *SHARING THE COST AND BENEFITS OF ENERGY AND RESOURCES ACTIVITY* (Oxford U. Press 2016).

to the community to be used for property tax reductions, economic development projects, land and natural resources conservation, tourism, or reduction in energy costs.²⁰⁴

One benefit of the *Kelo* revolution was that it provoked a very public conversation in state legislatures and beyond about the potential need to rebalance the costs and benefits of public projects through enhanced compensation and additional procedural protections for landowners. The present day controversies over the use of eminent domain for energy transport projects have the potential to create a similar conversation that may, in turn, prompt energy transport companies, lawmakers, and regulators to create new ways to include landowners in these projects and reduce conflict from the start.

VI. CONCLUSION

Energy transport has never been more important. The United States is experiencing simultaneous unprecedented booms in the production of oil, gas, and wind and solar power. New technology has kept this boom going while energy prices remain low. This new abundance of domestic energy can deliver massive economic and environmental benefits to the United States if it can be brought to market. But the need for new transport is running into old disputes about property rights—most notably, the problem of eminent domain and public use. States and the federal government must think carefully about how to navigate these disputes, using tools that help them build the energy system of the next century. This Article evaluates the impact of the *Kelo* case and post-*Kelo* state action on present-day energy transport projects. It suggests approaches that lawmakers can use to ensure that eminent domain laws governing energy transport projects reflect evolving policies governing energy transition as well as landowner compensation and procedural rights.

²⁰⁴ See, e.g., Paddock & Greenblum, *supra* note 201.