The Law of Energy Exports

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The fossil fuel industry has filed an increasing number of dormant Commerce Clause lawsuits against coastal states and cities that have rejected proposals for new coal and oil export facilities in their jurisdictions. These lawsuits are creating a wholly new "law of energy exports" that to date has been underexplored in the academic literature, even as it garners frequent newspaper headlines. This Article is the first comprehensive analysis of this evolving body of law. It evaluates the lawsuits and legal arguments surrounding energy exports and situates them in the context of rapid changes in domestic and international energy resource development and use. It then evaluates the implications of this growing body of law more broadly. Resolution of these lawsuits will affect the ability of states and cities to enact policies that affect a broad range of interstate markets for energy-related goods, such as coal, oil, natural gas, and renewable energy. The law of energy exports will also impact legal doctrines that apply to international trade and the power of the executive branch to shape judicial resolution of dormant Foreign Commerce Clause disputes.

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This Article concludes that with regard to the energy export cases themselves, existing dormant Commerce Clause doctrine supports the authority of state and local governments to reject new fossil fuel export facilities within their jurisdictions if such actions are implemented to protect public health and the environment, and not for economic protectionist reasons. Moreover, the energy export cases could potentially establish a new jurisprudence with a more limited role for the dormant Commerce Clause to act as a barrier to nondiscriminatory state and local policies that affect interstate energy markets. Such a development would place more focus on Congress rather than on the courts or the executive branch, to resolve energy-related disputes between states.

INTRODUCTION

The abundance or scarcity of energy resources drives state energy policy. Some states, like Wyoming, Texas, Kentucky, West Virginia, Oklahoma, Louisiana, Montana, North Dakota, and Pennsylvania, have long possessed significant coal, oil, or natural gas resources. Early on in those states' histories, state leaders saw these resources as an opportunity for economic growth and developed policies to promote the extraction, use, and export of these resources domestically and worldwide.[1] Other states, like the Pacific Northwest states of Washington and Oregon, developed nearby hydropower resources primarily for domestic use.[2] In more recent years, Texas, Iowa, Minnesota, and other states in the Great Plains have capitalized on ample wind energy resources.[3] Despite these

1. *See, e.g.*, Alexandra B. Klass, *The Frontier of Eminent Domain*, 79 U. COLO. L. REV. 651, 657–67 (2008) (discussing how states in the Intermountain West, with extractive economies, granted mining companies broad use of eminent domain authority through state constitutions and statutes to build their state economies in the early twentieth century); Grant Nülle & Robert McManmon, *Major Fossil Fuel Producing States Rely Heavily on Severance Taxes*, U.S. ENERGY INFO. ADMIN. (Aug. 21, 2015), https://www.eia.gov/todayinenergy/detail.php?id=22612 [https://perma.cc/Y39Y-YDY6] (discussing states with revenues that rely heavily on taxes generated from the extraction and sale of fossil fuels).

2. *See* Elizabeth Ingram, *Hydro in the Pacific Northwest: The Region's Electricity Powerhouse*, HYDRO REV. (Aug. 15, 2018), https://www.hydroreview.com/2018/08/15/hydro-in-the-pacific-northwest-the-region-s-electricity-powerhouse/ [https://perma.cc/7C4B-YSCS] (describing the importance of hydropower as "an instrument of economic change . . . in the Pacific Northwest").

3. *See, e.g.*, Tim Webber, *Wind Blows by Coal To Become Iowa's Largest Source of Electricity*, DES MOINES REG. (Apr. 16, 2020), https://www.desmoinesregister.com/story/tech/science/environment/2020/04/16/wind-energy-iowa-

regional differences, a constant among all the states is their active participation in a vast, interstate network of railroads, highways, shipping routes, electric transmission lines, and pipelines to transport, import, and export domestic and foreign energy resources. With financial and regulatory support from Congress and state legislatures, private industry built this interstate and international energy transport infrastructure. This infrastructure continues to power the nation and the world today by lighting our lights; heating, cooling, and operating our homes, factories, and other businesses; and fueling our transportation system.

In recent years, coastal states and cities have resisted the energy industry's efforts to expand this infrastructure to increase exports of coal, oil, and other fossil fuel resources, citing environmental concerns. At the local level, cities like South Portland, Maine, cite bad air quality as a primary reason for their resistance.[4] Other cites, like Portland, Oregon, aim to combat climate change by reducing reliance on fossil fuels.[5] To reach their environmental and land use protection goals, these communities have taken a variety of approaches. For instance, in 2014, the City of South Portland, Maine, enacted an ordinance prohibiting the storing and handling of petroleum products for loading onto marine vessels for international export;[6] in 2015, the City of Portland, Oregon, enacted an ordinance banning new bulk fossil fuel terminals;[7] and in 2017, the State of Washington denied permits for what would be the largest coal export terminal on the West Coast.[8] In response to each of these actions, project proponents filed lawsuits alleging that the governmental actions violated the dormant Commerce Clause and dormant Foreign Commerce Clause, in addition to other claims.

These disputes arose from a rapid turnaround in U.S. energy fortunes. During the latter half of the twentieth century and the first few years of the twenty-first century, the nation's declining supplies of fossil fuels and its increasing need for energy imports dominated both domestic and foreign policy. The oil crisis in the 1970s led to decades of angst over U.S. dependence on oil from the Middle East, concerns over depletion of natural gas, and geopolitical

largest-source-electricity/5146483002/ [https://perma.cc/LP95-HCSM] (explaining that after state investment in the wind industry, a majority of Iowa's electricity came from wind).

4. *See, e.g.*, Sabrina Shankman, *Fumes from Petroleum Tanks in this City Never Seem to Go Away. What Are the Kids Here Breathing?*, INSIDE CLIMATE NEWS (June 10, 2019), https://insideclimatenews.org/news/10062019/south-portland-oil-tank-farm-fumes-vocs-children-health-epa-tests-maine [https://perma.cc/79R5-24A2] ("[W]e're all just scared by the fumes, and the tanks, and the mystery of what [our kids are] breathing as [they play] in this otherwise idyllic little city.").

5. Everton Bailey Jr., *Portland Considering Revised Policy to Ban New Large Fossil Fuel Terminals*, OREGONLIVE (Dec. 19, 2019), https://www.oregonlive.com/portland/2019/11/portland-considering-revised-policy-to-ban-new-fossil-fuel-terminals.html [https://perma.cc/AV6W-UZRG] ("By allowing more terminals, we undermine our local and global efforts to transition off fossil fuels that cause climate change." (quoting Portland Mayor Ted Wheeler)).

6. *See infra* Part III.B.1.

7. *See infra* Part III.B.2.

8. *See infra* Part III.B.3.

vulnerability. By 2017, only ten years after the development of hydraulic fracturing and directional drilling technologies had created a new abundance of domestic oil and gas resources, however, President Trump and his cabinet secretaries were declaring that the United States was experiencing an era of "energy dominance."[9]

The fossil fuel industry has seized this economic opportunity to develop new export markets for its products.[10] But regional differences among states—with regard to both energy resources and, now, energy policy—have created new roadblocks for energy exports. At the same time that the United States has become awash in low-cost coal, natural gas, and oil, many states have embraced aggressive climate policies designed to eliminate the use of fossil fuels in the electricity and transportation sectors.[11]

For instance, with regard to coal, state and local governments have enacted policies to phase out the use of coal in power plants, leading to a glut of domestic coal because of decreased demand from the U.S. electricity sector. Coal companies see international exports as their only hope to avoid a complete demise of the industry.[12] But increasing coal exports requires building new coal export terminals in coastal states that are the gateway to Asia—California, Washington, and Oregon. These happen to be the states with the most aggressive climate policies and thus they are hostile to these new projects. Under current

9. *See, e.g.*, *President Donald J. Trump Unleashes America's Energy Potential*, WHITE HOUSE (June 27, 2017), https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-unleashes-americas-energy-potential/ [https://perma.cc/H9WR-Y4UJ] (listing actions taken by President Trump upon his election to achieve "American energy dominance"); U.S. DEP'T OF THE INTERIOR, ORDER NO. 3351, STRENGTHENING THE DEPARTMENT OF THE INTERIOR'S ENERGY PORTFOLIO, (May 1, 2017) ("Achieving American energy dominance begins with recognizing that we have vast untapped domestic energy reserves. For too long, America has been held back by burdensome regulations on our energy industry. The Department is committed to an America-first energy strategy . . . ."); Emily S. Rueb, *'Freedom Gas,' The Next American Export*, N.Y. TIMES (May 29, 2019), https://www.nytimes.com/2019/05/29/us/freedom-gas-energy-department.html [https://perma.cc/SNA9-BLYW] (discussing the Department of Energy's branding of U.S. natural gas as "freedom gas"); Press Release, White House, President Trump Vows to Usher in Golden Era of American Energy Dominance (June 30, 2017), https://web.archive.org/web/20210110065457/https://www.whitehouse.gov/articles/president-trump-vows-usher-golden-era-american-energy-dominance/ ("The President explained that he is not only focusing on 'energy independence,' but also 'energy dominance.'"); *President Donald J. Trump is Ending the War on American Energy and Delivering a New Era of Energy Dominance*, WHITE HOUSE (Oct. 23, 2019), https://web.archive.org/web/20210120111330/https://www.whitehouse.gov/briefings-statements/president-donald-j-trump-ending-war-american-energy-delivering-new-era-energy-dominance/ [https://perma.cc/2VXS-FEN6] ("Instead of relying on foreign oil and foreign energy, we are now relying on American energy and American workers like never before.").

10. *See infra* Part I.

11. *See infra* Part IV.A (discussing state clean energy laws).

12. *See, e.g.*, Clifford Krauss, *Coal Industry Pins Hopes on Exports as U.S. Market Shrinks*, N.Y. TIMES (June 14, 2013), https://www.nytimes.com/2013/06/15/business/energy-environment/a-fight-over-coal-exports-and-the-industrys-future.html [https://perma.cc/4PMM-SNCQ] (discussing "a push by the nation's coal industry, hobbled by plummeting demand as Americans turn to cleaner natural gas, to vastly expand what it sends to Asia and Europe").

law, coal export terminals require permits from both federal and state governmental authorities. These coastal states have refused to grant the permits and other approvals required to build these projects, leading both the coal industry and states with significant coal resources to file lawsuits against them. The lawsuits allege that state denials of needed permits are invalid under the dormant Commerce Clause and dormant Foreign Commerce Clause of the U.S. Constitution, among other claims.[13]

As for the oil and gas industry, hydraulic fracturing has led to a rapid increase in domestic supply of natural gas and oil, creating new export opportunities for the first time in decades. This has led the oil and gas industry to seek to build export terminals for liquefied natural gas (LNG) and oil. Exporting these resources requires building new transport and export infrastructure through states and cities along the U.S. coasts. These states and cities have opposed these new projects based on concerns over global climate effects and local environmental impacts, such as air and water pollution.

Congress expressly addressed this conflict by delegating the exclusive authority to permit LNG terminals to the Federal Energy Regulatory Commission (FERC) in the Energy Policy Act of 2005,[14] limiting the ability of states to block the construction of these projects. But for oil export facilities, just as for the coal export facilities described above, there is no such federal preemption to override state opposition. As a result, cities on both coasts have denied permits for proposed oil export facilities, leading to dormant Commerce Clause and dormant Foreign Commerce Clause litigation that mirrors the litigation over coal export facilities.[15]

The growing number of legal disputes between the fossil fuel industry and coastal states and cities over restrictions on new coal and oil export facilities is creating a wholly new "law of energy exports" that is underexplored in academic literature, even as it garners frequent newspaper headlines.[16] This Article is the

13. Other claims include statutory and foreign affairs preemption. Since preemption claims are deeply fact specific and are based on the precise language Congress used in the statute, they are not discussed in this paper. *See infra* note 25 (describing individual preemption cases as "unique"); ALEXANDRA B. KLASS & HANNAH J. WISEMAN, ENERGY LAW 39–45 (2d ed. 2019) (discussing challenges to state permit requirements for coal export facilities); *infra* Part II.B.3 (discussing the lawsuits in detail).

14. *See* Pub. L. No. 109-58, § 311(c)(2), 119 Stat. 594, 685–87 (codified at 15 U.S.C. § 717b); *LNG*, FED. ENERGY REGUL. COMM'N, https://www.ferc.gov/industries-data/natural-gas/overview/lng [https://perma.cc/445G-WLZM] (providing links to maps of proposed and existing LNG terminals and discussion of applicable laws); Alexandra B. Klass, *Future-Proofing Energy Transport Law*, 94 WASH. U. L. REV. 827, 854–63 (2017) (discussing history of LNG terminal-siting provisions in Energy Policy Act of 2005).

15. For a discussion on the role of cities as environmental regulators, see Katrina Wyman & Danielle Spiegel-Feld, *The Urban Environmental Renaissance*, 108 CALIF. L. REV. 305, 308 (2020) ("Major U.S. cities, especially on the coasts, now have more resources to spend on environmental protection; their populations have been growing."); *see also infra* Part II.B.

16. *See, e.g.*, L.M. Sixel, *Are Pipeline Land Takings in the Public Interest if Oil, Gas Headed Overseas?*, HOUSTON CHRON. (Apr. 17, 2018),

first comprehensive analysis of this evolving body of law. It evaluates the lawsuits surrounding energy exports, focusing specifically on Commerce Clause-related claims. These claims are the most likely to have lasting, far-reaching effects in and beyond the energy sector because they are not statute specific, as is the case in federal preemption claims, which tend to have more limited application.[17] This Article then situates these lawsuits in the context of rapidly changing state laws governing energy resource development and use in the United States, and explores the implications of this growing body of law for state and local energy policy more broadly.

This Article concludes that, when it comes to the energy export cases themselves, existing dormant Commerce Clause doctrine supports the authority of state and local governments to limit new or expanded fossil fuel export facilities within their jurisdictions if such actions are implemented to protect public health and the environment rather than for economic protectionist reasons. Moreover, resolution of the energy export cases has the potential to create a new body of dormant Commerce Clause law. This "law of energy exports" may narrow the dormant Commerce Clause's role as a potential barrier to nondiscriminatory state and local energy and environmental policies that affect interstate energy markets. Such a development would place more focus on Congress rather than on the courts or the executive branch, to resolve energy-related interstate disputes, particularly those that carry significant economic implications for states, like the energy export cases.

The law of energy exports will also impact legal doctrines that apply to trade with other nations. Courts in energy export cases must evaluate whether a state's refusal to grant a permit for an energy export facility violates the dormant Foreign Commerce Clause on the grounds that a President issued an executive order promoting fossil fuels exports, directed federal agencies to streamline federal permitting processes for infrastructure to facilitate fossil fuel exports, or

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https://www.houstonchronicle.com/business/energy/article/Are-pipeline-land-takings-in-the-public-interest-12804603.php [https://perma.cc/E55G-XLT4]; Associated Press, *Federal Trial Concludes in South Portland Pipeline Lawsuit*, WASH. TIMES (June 22, 2018), https://m.washingtontimes.com/news/2018/jun/22/federal-trial-concludes-in-south-portland-pipeline/ [https://perma.cc/YK8Y-43P8]; Sabrina Shankman, *South Portland's Tar Sands Ban Upheld in a 'David vs. Goliath' Pipeline Battle*, INSIDE CLIMATE NEWS (Aug. 28, 2018), https://insideclimatenews.org/news/28082018/tar-sands-pipeline-court-ruling-south-portland-ban-public-health-constitutional-big-oil-maine [https://perma.cc/A674-Y26W]; Peter Danko, *Portland Fossil-Fuel Infrastructure Ban Survives Court Challenge*, PORTLAND BUS. J. (Aug. 1, 2018), https://www.bizjournals.com/portland/news/2018/08/01/portland-fossil-fuel-infrastructure-ban-survives.html [https://perma.cc/2P79-4ZBM]; Cooper McKim, *WA Coal Export Terminal Reaches Significant Roadblock*, WYO. PUB. MEDIA (Aug. 22, 2019), https://www.kunc.org/2019-08-22/wa-coal-export-terminal-reaches-significant-road-block [https://perma.cc/ZU2V-RL53]; *Federal Judge Stalls Developers' Effort to Build West Coast Port for Montana Coal*, Q2 NEWS (July 17, 2019), https://www.ktvq.com/news/local-news/2019/04/12/federal-judge-stalls-developers-effort-to-build-west-coast-port-for-montana-coal/ [https://perma.cc/PYY9-GVQR].

17. *See infra* note 25.

negotiated trade agreements for the sale of U.S. fossil fuels.[18] This tension is particularly salient at times, like the present, when states and the federal government have vastly differing views and incentives regarding the regulation of energy and the environment.

Part I details the current U.S. energy landscape with a focus on the reasons why fossil fuel companies have been increasingly focused on export markets. These reasons include:

- the commercialization of hydraulic fracturing and directional drilling beginning in 2007, which resulted in significantly increased domestic supplies of oil and natural gas, lower domestic prices, and potentially lucrative export opportunities;[19]
- actions by electric utilities to substitute natural gas and renewable energy for coal in response to lower prices for natural gas and renewable energy, state clean energy mandates, and increased regulations on coal-fired power plants, resulting in a steep decline in U.S. domestic coal sales and forcing U.S. coal producers to look to export markets to avoid bankruptcy;[20] and
- Congress's repeal of the ban on U.S. crude oil exports in 2015, opening up new export markets for domestic crude oil.[21]

Part II turns to the current wave of litigation over energy export facilities. It focuses specifically on three contemporary lawsuits to illustrate the first stages of development in this area of law. The first dispute involves an ordinance enacted by the City of South Portland, Maine, that prohibited the storing and handling of petroleum products for loading onto marine vessels.[22] The City enacted the ordinance to prevent a local pipeline company's proposal to reverse the flow of a long-existing pipeline to transport Canadian tar sands oil from Alberta to Maine for international export. The second dispute involves a City of Portland, Oregon, ordinance that banned new bulk fossil fuel terminals or any expansion of existing fossil fuel terminals within the city.[23] The ordinance significantly limited the ability of refiners and distributors of oil and other fossil fuels to ship their products from one of the largest ports on the West Coast to other nearby U.S. ports and export markets. The third dispute involves multiple lawsuits by the parent company of Millennium Bulk Terminals—Lighthouse

18. *See infra* Part III.D (discussing executive orders); *see also* Clifford Krauss, *U.S. Energy Industry Looks for Clarity in China Trade Deal*, N.Y. TIMES (Jan. 15, 2020), https://www.nytimes.com/2020/01/15/business/energy-environment/china-trade-deal-energy.html [https://perma.cc/GLK8-4TMB] (discussing U.S.-China trade talks that include China's pledge to purchase "tens of billions of dollars of American fuels of all kinds" over a two-year period).

19. *See infra* Parts I.A. and I.B.

20. *See infra* Part I.C.

21. *See infra* notes 66–68 and accompanying text.

22. *See infra* Part II.B.1.

23. *See infra* Part II.B.2.

Resources—along with Burlington Northern Santa Fe (BNSF) Railway Company and the States of Montana and Wyoming against the State of Washington over the State's refusal to approve what would be the largest coal export terminal on the West Coast.[24] All three disputes involve new applications of the dormant Commerce Clause and dormant Foreign Commerce Clause, in addition to claims of federal, state, and foreign affairs preemption that are beyond the scope of this Article.[25] Part II explores the arguments of the parties and the court decisions to date.

Part III then builds on the energy export cases discussed in Part II to create a framework for developing a law of energy exports that both is consistent with longstanding legal doctrine and addresses contemporary concerns over balancing state and local environmental protection and climate change policies with interstate energy markets. In doing so, it considers (1) the importance of defining the appropriate "market" for purposes of dormant Commerce Clause analysis;[26] (2) judicial recognition in dormant Commerce Clause cases of state and local environmental protection efforts to justify market regulation;[27] (3) how to evaluate state and local restrictions on the physical movement of energy resources in interstate and international commerce;[28] and (4) the relevance of presidential executive orders or other federal executive branch statements in dormant Foreign Commerce Clause claims.[29] In developing this framework, Part III evaluates prior dormant Commerce Clause and dormant Foreign Commerce Clause challenges to state and local laws in a range of areas, including solid and hazardous waste disposal, local air pollution controls, and interstate trucking.

Part IV extends the analysis in Part III to future litigation involving state and local climate and energy policy more generally.[30] An increasing number of states have enacted 100 percent clean energy standards in the electricity sector

24. *See infra* Part II.B.3.

25. This Article does not address the preemption claims in the energy export cases because, as Dan Farber has noted, "[e]very preemption case is unique" and any particular case "can only be resolved by close attention to the language of the federal statute, to its legislative history, to its purposes, and to the content and effect of the state law in question." Daniel A. Farber, *Climate Change, Federalism, and the Constitution*, 50 ARIZ. L. REV. 879, 902–03 (2008). Thus, the arguments and holdings in the energy export cases with regard to whether any federal statutes preempt the state or local laws in question are not easily applicable to state and local laws in other areas of public health, safety, and environment. Likewise, this Article does not discuss the lawsuit over the ban in Oakland, California, on bulk coal export shipments from San Francisco Bay because the case was resolved on contract principles. *See* Oakland Bulk & Oversized Terminal, LLC v. City of Oakland, 960 F.3d 603, 612 (9th Cir. 2020). Although the litigants in the case raised dormant Commerce Clause arguments similar to the ones discussed in this Article, the U.S. Court of Appeals for the Ninth Circuit did not reach these arguments in resolving the case. *See id.* at 608–09.

26. *See infra* Part III.A.

27. *See infra* Part III.B.

28. *See infra* Part III.C.

29. *See infra* Part III.D.

30. *See infra* Part IV.A.

or have imposed new carbon limits on transportation fuels.[31] Dozens of local governments have already banned or limited the use of natural gas for heating and cooking in new building construction.[32] Based on current case law, so long as states are careful not to favor in-state industries over out-of-state industries, courts should uphold these laws under current dormant Commerce Clause doctrine even if they adversely impact fossil fuel interests outside the respective state.

Part IV then suggests that the energy export cases have the potential to limit and refine the dormant Commerce Clause's role to act as a barrier to nondiscriminatory state and local policies that affect interstate energy markets.[33] Justices Thomas and Gorsuch have questioned the legitimacy of the dormant Commerce Clause. Some of the more liberal Justices on the Court may also be open to reducing the litigation threat to innovative state and local policy initiatives on energy and the environment. Such a development would put more pressure on Congress to act if it wished to create uniformity among the states with regard to energy exports or to limit the general ability of states to enact and enforce their environmental and energy policy preferences. This result would also minimize the role of the executive branch in influencing dormant Foreign Commerce Clause decisions through executive orders and other policy statements.

I.
U.S. ENERGY PRODUCTION AND EXPORTS

In the past decade, the U.S. energy landscape has changed dramatically with regard to both production and use of energy. Although the bulk of news articles and academic papers focus on the transition away from fossil fuels toward renewable energy sources such as wind and solar energy, 61 percent of the electricity sector and 92 percent of the transportation sector remain powered by fossil fuels.[34] In part, the continued use of fossil fuels in the United States is a consequence of a burgeoning domestic supply. Hydraulic fracturing and

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31. *See infra* notes 260–264 and accompanying text (discussing state carbon limits on transportation fuels in California and Oregon); *infra* notes 316–322 and accompanying text (discussing state clean energy laws).

32. *See infra* notes 316, 332–335 and accompanying text (discussing municipal natural gas bans in new construction).

33. *See infra* Part IV.B.

34. *Electricity Explained: Electricity in the United States*, U.S. ENERGY INFO. ADMIN. (Mar. 18, 2021), https://www.eia.gov/energyexplained/electricity/electricity-in-the-us.php [https://perma.cc/XL8S-TUMS] (showing that the largest energy resources for U.S. electricity generation in 2019 were natural gas at 38 percent and coal at 23 percent); *Electricity Explained: Energy Use for Transportation*, U.S. ENERGY INFO. ADMIN. (June 2, 2020), https://www.eia.gov/energyexplained/use-of-energy/transportation.php [https://perma.cc/Z3XE-C3KT] (showing petroleum products accounted for about 91 percent of total U.S. transportation sector energy use in 2019 with the remainder comprised of biofuels at 5 percent, natural gas at 3 percent, and electricity at less than 1 percent).

directional drilling enabled a rapid increase in petroleum and natural gas production in recent years. Natural gas, in particular, is displacing coal usage in the electricity sector. But U.S. coal production and supply remain significant, with the industry hoping to maintain, or even increase, domestic market share and increase exports in 2021.[35]

These dramatic shifts in energy resource availability and consumer demand have transformed the United States into a net energy exporter, with potential to grow.[36] Current transportation infrastructure is not sufficient to realize this export potential, at least according to the fossil fuel industry.[37] So, the industry continues to push for new pipelines and export terminals. However, the development of new fossil fuel infrastructure faces harsh criticism among environmentalists and some governmental entities for its contribution to global greenhouse gas (GHG) emissions and local impacts on air and water quality.[38]

35. *See, e.g.*, Mark Morey & Alex Gorski, *As U.S. Coal-Fired Capacity and Utilization Decline, Operators Consider Seasonal Operation*, U.S. ENERGY INFO. ADMIN. (Sept. 1, 2020), https://www.eia.gov/todayinenergy/detail.php?id=44976 [https://perma.cc/9AKU-SEV3] (discussing impact of abundant U.S. natural gas and renewable energy resources on continued use of coal in electricity sector); U.S. ENERGY INFO. ADMIN., SHORT-TERM ENERGY OUTLOOK OCTOBER 2020 4 (2020), https://www.eia.gov/outlooks/steo/archives/oct20.pdf [https://perma.cc/HEZ9-2ZSR] (predicting U.S. coal production and use will rise in 2021 due to expected higher natural gas prices that year); Jacob Holzman, *EIA: 2020 U.S. Coal Production Will Fall to 501 Million Tons, 29% Drop From 2019*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (July 8, 2020), https://ieefa.org/eia-2020-u-s-coal-production-will-fall-to-501-million-tons-29-drop-from-2019/ [https://perma.cc/9X7B-F3XN] (discussing drop in coal use during the COVID-19 pandemic but potential rise in 2021 as well as increased exports).

36. *See, e.g.*, Terry Yen, *The United States is Expected to Export More Energy than It Imports by 2020*, U.S. ENERGY INFO. ADMIN. (Jan. 29, 2019), https://www.eia.gov/todayinenergy/detail.php?id=38152 [https://perma.cc/YDN9-GEHY] ("EIA projects that, for the first time since the 1950s, the United States will export more energy than it imports by 2020 as increases in crude oil, natural gas, and natural gas plant liquids production outpace growth in U.S. energy consumption.").

37. *See, e.g.*, Brian Wingfield, *U.S. Reverses Decades of Oil-Export Limits with Obama's Backing*, BLOOMBERG NEWS (Dec. 18, 2015), https://www.bloomberg.com/news/articles/2015-12-18/house-votes-to-repeal-u-s-oil-export-limits-senate-vote-next [https://perma.cc/FLL5-NU7C] (("'We're pretty excited about [exports], but we've also got to get the infrastructure' in place.") (quoting Conoco Phillips Chief Executive Ryan Lance)). *But see Frequently Asked Questions: Does the World Have Enough Oil to Meet Our Future Needs?*, U.S. ENERGY INFO. ADMIN. (Nov. 9, 2020), https://www.eia.gov/tools/faqs/faq.php?id=38&t=6 [https://perma.cc/YL9T-BB9H] ("There is substantial uncertainty about the levels of future liquid fuels supply and demand."); *cf.*, Tom Dart, *Why Texas' Fossil Fuel Support Will 'Spell Disaster' for Climate Crisis*, GUARDIAN (Dec. 7, 2019), https://www.theguardian.com/us-news/2019/dec/07/texas-permian-basin-shale-climate-crisis [https://perma.cc/RC4J-LNMA] (explaining that as production continues to increase, local opposition grows).

38. *See, e.g.*, Dino Grandoni, *The Energy 202: Dakota Access Operators Call Climate Change 'Undefined, Vague, and Ambiguous' in Official Filing*, WASH. POST (Nov. 13, 2019), https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2019/11/13/the-energy-202-dakota-access-operators-call-climate-change-undefined-vague-and-ambiguous-in-official-filing/5dcaed9f602ff1184c316408/ [https://perma.cc/DWD2-D8VT] ("The indigenous groups, as well as national environmental organizations such as Greenpeace, were concerned not only about potentially imperiling drinking water and disturbing sites sacred to Native Americans, but also about building out more oil infrastructure that will perpetuate U.S. contributions to the changing global climate.").

The COVID-19 pandemic in 2020 only intensified debates over the future of fossil fuels. Some argued that fossil fuel producers and intensive consumers, such as airlines, were in need of subsidies to survive the pandemic while others urged support for a "green recovery."[39] This Section details the recent changes in U.S. fossil fuel production and use as well as export opportunities and challenges.

A. Natural Gas Production and Exports

A dramatic increase in domestic supply of natural gas, as a result of hydraulic fracturing, has led natural gas producers to look to export markets to increase profits and market share. Before the widespread use of hydraulic fracturing and directional drilling, beginning in approximately 2007, U.S. natural gas production was declining rapidly, and the industry was building LNG import terminals to ensure adequate supplies of natural gas for U.S. heating, electricity, and industrial uses.[40] On land, most natural gas is transported in gaseous form through interstate pipelines, which are subject to FERC approval.[41] The process to import or export natural gas across oceans is more complex. The gas must be chilled to -260°F (-162.2°C), the point at which natural gas liquefies.[42] This process, called "liquefaction," converts natural gas to LNG, which is 1/600th of the original volume.[43] The process is expensive, costing anywhere between $500 and $4,500 per ton of capacity to construct and operate.[44]

In the Energy Policy Act of 2005, Congress included provisions to ensure adequate supplies of natural gas by delegating to FERC the exclusive power to

39. *Compare* Simon Evans & Josh Gabbatiss, *Coronavirus: Tracking How the World's 'Green Recovery' Plans Aim to Cut Emissions*, CARBONBRIEF (June 16, 2020), https://www.carbonbrief.org/coronavirus-tracking-how-the-worlds-green-recovery-plans-aim-to-cut-emissions [https://perma.cc/SS2Z-B96S] (advocating for a coronavirus recovery plan that reduces GHG emissions and listing nations that have adopted green recovery plans), *with* Alan Rappeport & Niraj Chokshi, *Crippled Airline Industry to Get $25 Billion Bailout, Part of it as Loans*, N.Y. TIMES (Apr. 29, 2020), https://www.nytimes.com/2020/04/14/business/coronavirus-airlines-bailout-treasury-department.html [https://perma.cc/96RL-3DBQ] (explaining that the Trump Administration supported an agreement with airlines struggling as a result of the coronavirus pandemic).

40. *See, e.g.*, James W. Coleman & Alexandra B Klass, *Energy and Eminent Domain*, 104 MINN. L. REV. 659, 674–78 (2019) (discussing a "fracking revolution" beginning in 2007).

41. *See Natural Gas Pipelines*, FED. ENERGY REGUL. COMM'N (Aug. 2015), https://www.ferc.gov/industries-data/natural-gas/overview/natural-gas-pipelines [https://perma.cc/5UPT-XBAN] ("FERC reviews applications for construction and operation of interstate natural gas pipelines under the authority of section 7 of the Natural Gas Act.").

42. *Natural Gas Explained: Liquefied Natural Gas*, U.S ENERGY INFO. ADMIN. (July 15, 2020), https://www.eia.gov/energyexplained/index.php?page=natural_gas_lng [https://perma.cc/3NPQ-5PSC].

43. *Id.*

44. BRIAN SONGHURST, OXFORD INST. FOR ENERGY STUD., LNG PLANT COST REDUCTION 2014–18, 1 (2018), https://www.oxfordenergy.org/wpcms/wp-content/uploads/2018/10/LNG-Plant-Cost-Reduction-2014–18-NG137.pdf [https://perma.cc/YLL3-ERKX].

approve natural gas import and export facilities.[45] Before enactment of these provisions, there were concerns that state opposition to LNG terminals would jeopardize LNG imports as domestic supplies failed to keep pace with growing national needs.[46] With the Energy Policy Act of 2005, Congress significantly reduced the ability of state and local governments to block such facilities.[47] Since then, the rapid increase in U.S. natural gas production has inverted international markets.[48] Massive LNG import terminals built to satisfy U.S. energy needs immediately after the Energy Policy Act of 2005 sat unused while prices for American gas plummeted.[49] Instead of importing natural gas, energy companies started to consider export.[50] In 2017, the United States became a net exporter of natural gas, with major production centers in Texas and the Marcellus Shale region of Pennsylvania.[51] FERC has approved numerous new LNG export terminals,[52] and their construction has led to more natural gas shipments on ocean-going carriers to Asia, Europe, and Mexico.[53]

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45. *See* Pub. L. No. 109-58, § 311(c)(2), 119 Stat. 594, 685–87 (codified at 15 U.S.C. § 717(b)) ("[FERC] shall have the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal."); Rachel Clingman & Audrey Cumming, *The 2005 Energy Policy Act: Analysis of the Jurisdictional Basis for Federal Siting of LNG Facilities*, 2 TEX. J. OIL, GAS & ENERGY L. 57, 78–82 (2007) (discussing initial litigation over FERC's authority to site import facilities).

46. *See* Klass, *supra* note 14, at 854–63 (discussing history of LNG-siting provisions in Energy Policy Act of 2005).

47. Lawsuits challenging federal LNG facility approval under various federal statutes have met with little success to date. *Id.* at 862–63 (discussing lawsuits); *LNG*, *supra* note 14.

48. Coleman & Klass, *supra* note 40, at 674 ("This fracking revolution has turned the United States from the world's biggest oil importer to the world's biggest producer . . . .").

49. Clifford Krauss, *Exports of American Natural Gas May Fall Short of High Hopes*, N.Y. TIMES (Jan. 4, 2013), https://www.nytimes.com/2013/01/05/business/energy-environment/exports-of-us-gas-may-fall-short-of-high-hopes.html [https://perma.cc/5556-TCRA] ("[T]he billion-dollar terminals [built in 2008] were obsolete even before the concrete was dry as an unexpected drilling boom in new shale fields from Pennsylvania to Texas produced a glut of cheap domestic natural gas.").

50. *See, e.g.*, *About Freeport LNG*, FREEPORT LNG, http://freeportlng.com/about/about-overview [https://perma.cc/E8RR-J4XP] ("The shale gas revolution in the late 2000s marked a turning point in the U.S. oil and gas industry. For Freeport LNG, it meant taking our business in a new direction: transforming an import terminal into a natural gas liquefaction and liquefied natural gas (LNG) export facility.").

51. *See Natural Gas Explained: Natural Gas Imports and Exports*, U.S. ENERGY INFO. ADMIN. (July 21, 2020), https://www.eia.gov/energyexplained/natural-gas/imports-and-exports.php [https://perma.cc/5HHB-7ULD] (stating that the United States became a net exporter of natural gas starting in 2016 and exports reached record-high numbers by 2019).

52. *See, e.g.*, Sergio Chapa, *Freeport LNG Raises $1 Billion to Add Fourth Production Unit to Export Terminal*, HOUSTON CHRON. (Sept. 9, 2019), https://www.chron.com/business/energy/article/Freeport-LNG-raises-1-billion-to-add-fourth-14425272.php#:~:text=Freeport [https://perma.cc/6SLU-3DGZ]; David Rowlands, *Global LNG Outlook 2020*, LNG INDUS. (Dec. 24, 2019), https://www.lngindustry.com/liquid-natural-gas/24122019/global-lng-outlook-2020/ [https://perma.cc/ULP9-8PC2] (describing current LNG export terminals as the "first wave" in a U.S. LNG export surge); *LNG*, *supra* note 14 (providing links to maps showing proposed and existing LNG export terminals).

53. *Natural Gas Explained: Liquefied Natural Gas*, *supra* note 42 (showing that the top five destinations for U.S. LNG exports in 2019 were South Korea, Japan, Spain, Mexico, and the United Kingdom).

Natural gas is responsible for 50–60 percent less carbon emissions than coal when burned in power plants and 15–20 percent less carbon emissions than gasoline when burned in vehicle engines.[54] However, extracting natural gas from wells leads to leakage of methane—a GHG that is eighty-six times as heat retentive as CO_2.[55] Though natural gas is often touted as a less carbon-intensive fossil fuel, some methods of calculating lifecycle GHG emissions[56] indicate that the methane released from production and export renders natural gas nearly as, or even more, carbon intensive as gasoline or coal.[57] Furthermore, the hydraulic fracturing process itself can lead to drinking water contamination, seismic activity, and other adverse environmental and geological consequences.[58]

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54. Calculated based on the raw numbers available at *Frequently Asked Questions: How Much Caron Dioxide is Produced When Different Fuels are Burned?*, U.S. ENERGY INFO. ADMIN. (June 17, 2020), https://www.eia.gov/tools/faqs/faq.php?id=73&t=11 [https://perma.cc/DM2M-EJQU] (listing natural gas as the lowest carbon-intensive fossil fuel).

55. *Environmental Impacts of Natural Gas*, UNION OF CONCERNED SCIENTISTS (June 19, 2014), https://www.ucsusa.org/clean-energy/coal-and-other-fossil-fuels/environmental-impacts-of-natural-gas [https://perma.cc/G8NE-575H] ("The drilling and extraction of natural gas from wells and its transportation in pipelines results in the leakage of methane, primary component of natural gas that is 34 times stronger than CO2 at trapping heat over a 100-year period and 86 times stronger over 20 years."); *see also* Mohan Jiang, W. Michael Griffin, Chris Hendrickson, Paulina Jaramillo, Jeanne VanBriesen & Aranya Venkatesh, *Life Cycle Greenhouse Gas Emissions of Marcellus Shale Gas*, 6 ENV'T RSCH. LETTERS 034014-1, 034014-5 (2011) ("Methane leakage rates throughout the natural gas system . . . are a major concern.").

56. A life cycle analysis (LCA) is "a method used to evaluate the environmental impact of a product through its life cycle encompassing extraction and processing of the raw materials, manufacturing, distribution, use, recycling, and final disposal." *Life Cycle Analysis*, SCI. DIRECT, https://www.sciencedirect.com/topics/earth-and-planetary-sciences/life-cycle-analysis [https://perma.cc/R68A-AECC].

57. *See Environmental Impacts of Natural Gas*, *supra* note 55 ("Whether natural gas has lower life cycle greenhouse gas emissions than coal and oil depends on the assumed leakage rate, the global warming potential of methane over different time frames, the energy conversion efficiency, and other factors."); Carlos Anchondo, *Study: Methane Emissions in Central U.S. Twice EPA Estimates*, E&E NEWS: ENERGYWIRE (Jan. 30, 2020), https://www.eenews.net/energywire/stories/1062205045 [https://perma.cc/G7JZ-H23B]; Catherine Traywick, Stephen Cunningham, Naureen S Malik & Dave Merrill, *Gas Exports Have a Dirty Secret: A Carbon Footprint Rivaling Coal's*, BLOOMBERG L. NEWS (Jan. 23, 2020), https://www.bloomberg.com/news/articles/2020-01-23/gas-exports-have-dirty-secret-a-carbon-footprint-rivaling-coal-s [https://perma.cc/P7KD-B4SS] (assessing GHG emissions associated with newly permitted LNG export terminals); Ramón A. Alvarez, et al., *Assessment of Methane Emissions from the U.S. Oil and Gas Supply Chain*, 361 SCIENCE 186, 186–88 (2018) (finding significant, previously undetected methane leakage from oil and gas production, transmission, and storage facilities); Benjamin Storrow, *Methane Leaks Erase Some of the Climate Benefits of Natural Gas*, SCI. AM. (May 5, 2020), https://www.scientificamerican.com/article/methane-leaks-erase-some-of-the-climate-benefits-of-natural-gas/ [https://perma.cc/94LM-P8JP].

58. *See, e.g.*, Qingmin Meng & Steve Ashby, *Distance: A Critical Aspect for Environmental Impact Assessment of Hydraulic Fracking,* 1 EXTRACTIVE INDUS. & SOC'Y 124 (2014) (discussing the adverse environmental impacts of hydraulic fracturing); *see also* Jonathan M. White, Whiteman v. Chesapeake*: Damage to Human Health and the Environment as Seen Through an Application to Hydraulic Fracturing*, 41 ECOLOGY L.Q. 645, 647–49 (2014) (same). *But see* Rana Sabouni, Hossein Kazemian & Sohrab Rohani, *Carbon Dioxide Capturing Technologies: A Review Focusing on Metal Organic Framework Metals*, 21 ENV'T SCI. POLLUTION RSCH. 5427, 5428 (2014) (showing that natural gas burns more cleanly than coal when combusted and emits only a small fraction of the criteria pollutants associated with coal and oil combustion).

B. Oil Production and Exports

The advent of hydraulic fracturing has also increased U.S. oil production at unprecedented rates,[59] from about five million barrels per day in 2010 to over twelve million barrels per day in 2019,[60] before slowing in 2020 due to reduced demand from the COVID-19 pandemic.[61] As with natural gas, the surplus of domestic oil production has led oil producers to consider new opportunities for growth in international markets.

Oil production in traditional oil exploration regions in Texas more than tripled in the last decade, with the Permian Basin in West Texas and New Mexico driving much of U.S. oil production growth.[62] Hydraulic fracturing has also made new oil and gas fields accessible in the Bakken Shale region in North Dakota, which was pumping over 1.3 million barrels of oil a day before the pandemic slowdown.[63] After decades of decline, the United States was the top crude-oil-producing country in the world in 2019.[64]

Because of the newly available supply, exports of U.S. crude oil rose dramatically, from a nearly non-existent amount in 2010 to over three million barrels per day in 2019 and the first part of 2020.[65] The largest growth occurred from 2016 to 2019 after Congress lifted restrictions on exporting domestic crude oil that had been in place for decades and prohibited such exports to virtually all countries but Canada.[66] These restrictions, which Congress had enacted to

59. *See, e.g.*, Coleman & Klass, *supra* note 40, at 676–77 (discussing the rapid growth in crude oil production associated with fracking).

60. Emily Geary, *U.S. Crude Oil Production Grew 11% in 2019, Surpassing 12 Million Barrels per Day*, U.S. ENERGY INFO. ADMIN. (Mar. 2, 2020), https://www.eia.gov/todayinenergy/detail.php?id=43015 [https://perma.cc/L72R-G4PZ].

61. *See U.S. Field Production of Crude Oil*, U.S. ENERGY INFO. ADMIN. (Feb. 26, 2021), https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=pet&s=mcrfpus2&f=m [https://perma.cc/6N54-TT5H] (indicating that the rate of oil production in the United States slowed in April and May 2020 during the COVID-19 pandemic).

62. Geary*, supra* note 60.

63. *See* Jeff Brady, *After Struggles, North Dakota Grows into Its Ongoing Oil Boom,* NPR NEWS (Nov. 23, 2018), https://www.npr.org/2018/11/23/669198912/after-struggles-north-dakota-grows-into-its-ongoing-oil-boom [https://perma.cc/N23X-QTT8] (explaining that the Bakken crude was a growing source of income and community support in rural North Dakota); *see also North Dakota Field Production of Crude Oil*, U.S. ENERGY INFO. ADMIN. (Feb. 26, 2021), https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?f=M&n=PET&s=MCRFPND1 [https://perma.cc/KUP4-YKCK] (showing that over forty million barrels of oil were extracted from the Bakken region in eleven of twelve months of 2019 and the first three months of 2020).

64. *Frequently Asked Questions: What Countries Are the Top Producers and Consumers of Oil?*, U.S. ENERGY INFO. ADMIN. (Dec. 1, 2020), https://www.eia.gov/tools/faqs/faq.php?id=709&t=6 [https://perma.cc/WT7T-2BJ2].

65. *U.S. Exports of Crude Oil*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/dnav/pet/hist/LeafHandler.ashx?n=PET&s=MCREXUS2&f=M [https://perma.cc/8QQE-49VX]; Mason Hamilton, *The United States Now Exports Crude Oil to More Destinations than It Imports from*, U.S. ENERGY INFO. ADMIN. (Oct. 22, 2019), https://www.eia.gov/todayinenergy/detail.php?id=41754 [https://perma.cc/T76K-8GV6].

66. Hamilton, *supra* note 65. Congress created new oil export opportunities in 2015 when it repealed a national ban on virtually all U.S. crude oil exports that had been in place since the oil crisis

address the 1970s energy crisis, were repealed in December 2015.[67] By September 2019, the United States exported more oil than it imported for the first time since 1949.[68]

U.S. oil companies aim to invest in new infrastructure[69] to continue expanding the volume of U.S. oil traded on the global market, increasingly to Asia and Europe.[70] In Texas, New Mexico, Oklahoma, and the Gulf of Mexico, oil exports typically originate directly from oil-friendly states in that region.[71] But for North Dakota, oil exports that do not go directly to Canada must travel through states that tend to oppose increased fossil fuel use to leave the country.[72]

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of the 1970s. *See* Amy Harder & Lynn Cook, *Congressional Leaders Agree to Lift 40-Year Ban on Oil Exports*, WALL ST. J. (Dec. 16, 2015), https://www.wsj.com/articles/congressional-leaders-agree-to-lift-40-year-ban-on-oil-exports-1450242995 [https://perma.cc/8L5R-PU7T]; *see also* Christopher R. Wall & Benjamin J. Cote, *Lifting of 40-Year Statutory Crude Oil Ban Signed into Law*, PILLSBURY WINTHROP SHAW PITTMAN LLP (Dec. 23, 2015), https://www.globaltradeandsanctionslaw.com/414/ [https://perma.cc/7M84-NVK5] (discussing President Obama's signature of the Consolidated Appropriations Act, 2016, which repealed "Section 103 of the Energy Policy and Conservation Act (42 U.S.C. § 6212), the cornerstone of the prohibition on exporting crude, and provides that '[n]otwithstanding any other provision of law . . . no official of the Federal Government shall impose or enforce any restriction on the export of crude oil'").

67. *See* Sam Andre, Note, *Striking Before the Well Goes Dry: Exploring if and How the United States Ban on Crude Oil Exports Should Be Lifted to Exploit the American Oil Boom*, 100 MINN. L. REV. 763, 766–68 (2015) (discussing history of U.S. ban on crude oil exports).

68. *See, e.g.*, Dino Grandoni, *The Energy 202: The U.S. Just Hit a Major Milestone as a Petroleum Exporter*, WASH. POST (Nov. 13, 2019), https://www.washingtonpost.com/news/powerpost/paloma/the-energy-202/2019/12/03/the-energy-202-the-u-s-just-hit-a-major-milestone-as-a-petroleum-exporter/5de550eb88e0fa652bbbdb19/ [https://perma.cc/9DBA-XCRT] (stating that in November 2019 "the United States just reached a new energy-producing milestone by notching its first month in at least 70 years exporting more crude oil and petroleum products than it imported per day"); Hamilton, *supra* note 65; *Oil and Petroleum Products Explained: Oil Imports and Exports*, U.S. ENERGY INFO. ADMIN. (Apr. 27, 2020), https://www.eia.gov/energyexplained/oil-and-petroleum-products/imports-and-exports.php [https://perma.cc/W32Z-GZTT].

69. Patti Domm, *The U.S. Is About to Send a Lot More Oil into an Already Oversupplied World Market*, CNBC (Aug. 27, 2019), https://www.cnbc.com/2019/08/27/the-us-is-about-to-send-a-lot-more-oil-into-an-oversupplied-market.html [https://perma.cc/YKK5-R3ZQ] ("The new pipelines are expected to take more Texas crude to the Gulf Coast, and from there it can be shipped out to the world, but the world is now well supplied, and even more U.S. oil could help depress prices, especially if the trade wars continue to suppress demand."); *see also* Bradley Kramer, *2019 U.S. Oil Pipeline Report: Permian Production Spurs New Projects*, N. AM. OIL & GAS PIPELINES (May 28, 2019), https://napipelines.com/2019-oil-pipeline-report-permian-basin-production-infrastructure-projects/ [https://perma.cc/U6SR-R6S4] (listing nine pipelines currently in various stages of development across the country); Neil Agarwal, Jim O'Sullivan & Nicholas Skarzynski, *EIA's New Liquids Pipeline Projects Database Shows New U.S. Crude Oil Pipeline Capacity*, U.S. ENERGY INFO. ADMIN. (May 30, 2019), https://www.eia.gov/todayinenergy/detail.php?id=39672 [https://perma.cc/U9VX-K5LK] (announcing an EIA database that tracks more than 200 crude oil and petroleum pipeline projects).

70. Domm, *supra* note 69.

71. *Cf. U.S. Energy Mapping System*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/state/maps.php [https://perma.cc/AT2C-BC57] (applying layers for "Petroleum" view indicates that, in the Gulf of Mexico region, most oil fields are connected directly to ports in the gulf).

72. *See, e.g.*, Brian Scheid, *Phillips 66 Cuts Crude-by-Rail Shipments to Ferndale Refinery Due to State Law*, S&P GLOB. PLATTS (Oct. 2, 2019), https://www.spglobal.com/platts/en/market-

Much of this oil travels by rail, either to Washington and British Columbia for local use and export to Asia or to the East Coast for local use and export to Europe.[73] Unlike LNG facilities, which are subject to exclusive federal permitting authority since Congress enacted the Energy Policy Act of 2005, oil export facilities require state and local permits to operate.[74]

Though a growing portion of U.S. oil travels to Asia and Europe, the largest importers of U.S. oil continue to be Canada and Mexico.[75] Collectively, they import more than 25 percent of U.S. petroleum exports.[76] Canada, however, is also a major oil producer and exports significantly more oil to the United States than it imports.[77] Despite a longstanding trade relationship for oil between the United States and Canada, the current pipeline infrastructure is insufficient to transport the increasing oil supply produced by both countries.[78] Moreover, as

insights/latest-news/oil/100219-phillips-66-cuts-crude-by-rail-shipments-to-ferndale-refinery-due-to-state-law-letter [https://perma.cc/Y99H-D3DQ] (indicating that oil is shipped by rail from Bakken crude to Washington, which recently passed a law that limits rail transport of oil); Danny Boyd, *Soaring Oil Production Spurs Infrastructure Growth Across Booming Bakken Play*, AM. OIL & GAS REP., May 2012, https://www.aogr.com/magazine/cover-story/soaring-oil-production-spurs-infrastructure-growth-across-booming-bakken-pl [https://perma.cc/E625-FQWJ] (discussing pipeline investments to transport North Dakota oil, along with current rail growth).

73. *See* Alexandra B. Klass & Danielle Meinhardt, *Transporting Oil and Gas: U.S. Infrastructure Challenges*, 100 IOWA L. REV. 947, 972–73 (2015) (explaining that North Dakota oil is shipped by rail because North Dakota was not imagined as an oil production region when current pipeline infrastructure was built); Jarrett Renshaw & Devika Krishna Kumar, *Buckeye Partners Export Bakken Crude Out of NJ Terminal – Sources*, REUTERS (Nov. 29, 2018), https://www.reuters.com/article/us-buckeye-partners-oil/buckeye-partners-export-bakken-crude-out-of-nj-terminal-sources-idUSKCN1NY2L1 [https://perma.cc/WH5Y-HRUF] (explaining that crude oil from the Bakken will be shipped from terminals in New Jersey to Canada and Europe); Scheid, *supra* note 72 (indicating Bakken crude is shipped to Washington via rail); Boyd, *supra* note 72 (explaining that options to ship include rail, truck, and pipeline transit, though rail currently predominates).

74. *See*, *e.g.*, *LNG*, *supra* note 14 (discussing federal permitting requirement for LNG export facilities); Allison Good, *Offshore Crude Export Hopefuls May Face Project Permitting Pains*, S&P GLOB. MKT. INTEL. (Apr. 1, 2019), https://www.spglobal.com/marketintelligence/en/news-insights/trending/LJr1pRC4Ve-Llfe58tkrRQ2 [https://perma.cc/MAT4-JXQ7] (discussing state permitting requirements for oil export facilities).

75. *Frequently Asked Questions: How Much Petroleum Does the United States Import and Export?*, U.S. ENERGY INFO. ADMIN., https://www.eia.gov/tools/faqs/faq.php?id=727&t=6 [https://perma.cc/4SVU-2UWT]

76. *See id.* (indicating that Mexico imports 14 percent and Canada 12 percent).

77. ANDREW STANLEY, CTR. FOR STRATEGIC & INT'L STUD., MAPPING THE U.S.-CANADA ENERGY RELATIONSHIP 2–3 (2018), https://csis-website-prod.s3.amazonaws.com/s3fs-public/publication/180507_Stanley_U.S.CanadaEnergy.pdf [https://perma.cc/H4HA-DUEF]; *see also What is Crude Oil?*, NAT. RES. CAN. (Oct. 6, 2020), https://www.nrcan.gc.ca/science-data/data-analysis/energy-data-analysis/energy-facts/crude-oil-facts/20064 [https://perma.cc/7JZB-KNKV] (explaining that 96 percent of Canada's oil exports go to the United States).

78. *See* Klass & Meinhardt, *supra* note 73, at 966, 969–70 (discussing U.S.-Canada trade relationship historically and projected 30 percent increase in capacity). *See generally* Natalie Kempkey, *The U.S. Is a Net Energy Importer from Canada*, U.S. ENERGY INFO. ADMIN. (May 23, 2018), https://www.eia.gov/todayinenergy/detail.php?id=36332 [https://perma.cc/XNF6-22KQ] (discussing the U.S.-Canada bilateral energy trade).

Canadian production from Alberta "oil sands" (also known as "tar sands")[79] began to increase in the early 2000s, the oil industry attempted to change the directions of the pipelines or to build new pipelines, such as the controversial Keystone XL and Enbridge Line 3 Pipelines, to ship oil from Canada to U.S. port cities that transport oil to the global market.[80]

Oil producers in the Permian Basin and Bakken Shale regions have failed to build the infrastructure necessary to capture the natural gas that is co-located with oil, making the United States among the least efficient oil-producing countries in the world.[81] Thus, instead of capturing the natural gas found with the oil and selling it for use in power plants, home heating, and other purposes, the gas is "flared"—burned as a waste product.[82] Flaring is estimated to account

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79. According to the Union of Concerned Scientists, "[t]ar sands (also known as oil sands) are a mixture of mostly sand, clay, water, and a thick, molasses-like substance called bitumen. Bitumen is made of hydrocarbons—the same molecules in liquid oil—and is used to produce gasoline and other petroleum products. Extracting bitumen from tar sands—and refining it into products like gasoline—is significantly costlier and more difficult than extracting and refining liquid oil." *What Are Tar Sands?*, UNION OF CONCERNED SCIENTISTS (Feb. 23, 2016), https://www.ucsusa.org/resources/what-are-tar-sands [https://perma.cc/N6TP-S9QQ]; *see also What Are the Oil Sands?*, CANADIAN ASS'N OF PETROLEUM PRODUCERS, https://www.capp.ca/oil/what-are-the-oil-sands/ [https://perma.cc/BLA2-HQ6M] (describing the history, location, and production process for Canadian oil sands resource in Alberta and Saskatchewan); Andrew Prince, *Infographic: How Tar Sands Oil Is Produced*, NPR (Aug. 16, 2012), https://www.npr.org/2012/08/16/158907708/infographic-how-tar-sands-oil-is-produced [https://perma.cc/H93E-NZ7Q] (explaining the two processes for extracting tar sands from the ground—open-pit mining and steam extraction—and comparing the processes with traditional crude oil drilling).

80. *See, e.g.*, Hiroko Tabuchi & Brad Plumer, *Is This the End of New Pipelines?*, N.Y. TIMES (Jan. 18, 2021), https://www.nytimes.com/2020/07/08/climate/dakota-access-keystone-atlantic-pipelines.html [https://perma.cc/6HCJ-SH65] (discussing legal setbacks to Keystone XL and other pipelines and controversy over growth in pipeline infrastructure expansions over the past decade); PAUL W. PARFOMAK, CONG. RSCH. SERV., IN11131, KEYSTONE XL PIPELINE: THE SAGA CONTINUES (2019) (discussing protests and litigation involving Keystone XL pipeline); *Line 3 Replacement Program*, ENBRIDGE, https://www.enbridge.com/Line3ReplacementProgram.aspx [https://perma.cc/JYC7-ZGSK] (describing proposed multi-billion-dollar pipeline project from Canada through Minnesota to Wisconsin refineries that would be "the largest project in Enbridge history"); Sabrina Shankman, *This Coastal Town Banned Tar Stands and Sparked a War with the Oil Industry*, INSIDE CLIMATE NEWS (Nov. 21, 2017), https://insideclimatenews.org/news/02112017/oil-pipeline-tar-sands-banned-south-portland-maine-industry-lawsuit-home-rule [https://perma.cc/ME5S-NDXG] ("The pipeline project would reverse the flow direction on a 70-year-old system that carries conventional crude oil from a tanker facility in South Portland to refineries in Montreal.").

81. Mohammad S. Masnadi, Jacob Englander, Alhassan Badahdah, Jean-Christophe Monfort, James E. Anderson, Timothy J. Wallington, Joule A Bergerson, Deborah Gordon, Jonathan Koomey, Steven Przesmitzki, Inês L Azevedo, Xiaotao T. Bi, James E. Duffy, Garvin A Heath, Gregory A. Keoleian, Cristophe McGlade, D. Nathan Meehan, Sonia Yeh, Fengqi, Michael Wang & Adam R. Brandt, *Global Carbon Intensity of Crude Oil Production*, 361 SCI. 851, 852 (2018) (demonstrating that GHG emissions from U.S. oil production are comparable to those from Oman, Libya, Egypt, and Russia). The Trump Administration EPA also rolled back Obama-era environmental rules designed to reduce methane emissions from natural gas production. *See, e.g.*, Carlos Anchondo, *Trump's Methane Rule Rollback Fractures Oil Industry*, E&E NEWS: ENERGYWIRE (Aug. 14, 2020), https://www.eenews.net/stories/1063711689 [https://perma.cc/3EQC-W5QW].

82. *See, e.g.*, Artem Abramov & Morten Bertelsen, *Permian Gas Flaring Reaches Yet Another High*, RYSTAD ENERGY (Nov. 5, 2019), https://www.rystadenergy.com/newsevents/news/press-releases/permian-gas-flaring-reaches-yet-another-high/ [https://perma.cc/7NVS-KLC5] (indicating an

for more than one-fifth of the worldwide carbon emissions from oil. The practice has significantly contributed to global GHGs, which have historically been underreported by both the oil industry and regulators, including in the Permian Basin and other oil-producing regions of the United States.[83]

C. Coal Production and Exports

Unlike natural gas and oil, coal production has declined in recent years.[84] But a dramatic decrease in demand has outpaced reductions in supply and led coal producers to seek exports as a way to sustain the industry. In 2008, coal constituted nearly 50 percent of the energy used in the U.S. electricity sector and even constituted 70–90 percent of the energy used in some states.[85] By 2020,

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increase in flaring in the Permian basin since 2011 "driven by a combination of higher activity levels, more production from areas with less developed gas gathering infrastructure, and basin-wide takeaway capacity bottlenecks"); GlobalData Energy, *Oil Production in US Bakken Formation Face Flaring Constraints*, OFFSHORE TECH. (Aug. 7, 2019), https://www.offshore-technology.com/comment/oil-production-in-us-bakken-formation-faces-flaring-constraints/ [https://perma.cc/EL89-G65T] ("North Dakota's oil and gas production is somehow constrained in its growth due to flaring regulations."); *Permian Gas Flaring, Venting Reaches Record High*, OIL & GAS J. (June 4, 2019), https://www.ogj.com/general-interest/hse/article/17279037/permian-gas-flaring-venting-reaches-record-high [https://perma.cc/62TY-EQ3V] (indicating gas flaring—burning of gas that comes with oil—in the Permian Basin in Texas has risen); *GlobalData: Flaring Limits, Bottlenecks to Constrain Bakken Shale Growth*, OIL & GAS J. (Aug. 23, 2019), https://www.ogj.com/drilling-production/production-operations/unconventional-resources/article/14038792/globaldata-flaring-limits-bottlenecks-to-constrain-bakken-shale-growth [https://perma.cc/Z3B6-6QQD] (arguing North Dakota regulators will have to raise maximum flaring thresholds to increase production in the Bakken Shale region); *see also* Bradley N. Kershaw, Note, *Flames, Fixes, and the Road Forward: The Waste Prevention Rule and BLM Authority to Regulate Natural Gas Flaring and Venting*, 29 COLO. NAT. RES., ENERGY, & ENV'T L. REV. 115, 131 (2018) (explaining that high capital costs to build infrastructure, technical concerns, and a lack of federal penalty contribute to continuing gas flaring).

83. Masnadi et al., *supra* note 81, at 851; *see also* Kershaw, *supra* note 82, at 129–30 (discussing studies showing federal agencies have underestimated the rate of venting, flaring, and leakages from natural gas production); Yuzhong Zhang, Ritesh Gautam, Sudhanshu Pandey, Mark Omara, Joannes D. Maasakkers, Pankaj Sadavarte, David Lyon, Hannah Nesser, Melissa P. Sulprizio, Daniel J. Varon, Ruixiong Zhang, Sander Houweling, Daniel Zavala-Araiza, Ramon A. Alvarez, Alba Lorente, Steven P. Hamburg, Ilse Aben & Daniel J. Jacob, *Quantifying Methane Emissions from the Largest Oil-Producing Basin in the United States From Space*, 6 SCI. ADVANCES 1 (2020) (discussing historic underreporting of methane emissions from the Permian Basin in Texas).

84. *See* U.S. ENERGY INFO. ADMIN., SHORT-TERM ENERGY OUTLOOK OCTOBER 2020, *supra* note 35, at 4 ("EIA expects total U.S. coal production in 2020 to be 525 million short tons (MMst), compared with 705 MMst in 2019, a 26% decrease. COVID-19 and efforts to mitigate it along with reduced demand from the U.S. electric power sector amid low natural gas prices have contributed to mine idling and mine closures. EIA expects production to rise to 625 MMst in 2021, up 19% from 2020. This forecast increase reflects rising demand for coal from U.S. electricity generators because of higher natural gas prices compared with 2020.").

85. *See* FRED FREME, U.S. COAL SUPPLY AND DEMAND: 2008 REVIEW, U.S. ENERGY INFO. ADMIN. 8 fig.5 (2009), https://www.eia.gov/coal/review/pdf/feature08.pdf [https://perma.cc/93WT-C2FG] (chart indicating that coal constituted 50 percent of electric energy in 2007 and 2008); Nadja Popovich & Brad Plumer, *How Does Your State Make Electricity?*, N.Y. TIMES (Oct. 28, 2020), https://www.nytimes.com/interactive/2020/10/28/climate/how-electricity-generation-changed-in-your-state-election.html [https://perma.cc/C8S9-EB76] (showing coal was used to generate 91 percent of electric energy in West Virginia and 84 percent in Wyoming, in 2019, as examples).

that number had declined to just 19.3 percent nationwide, though states with coal resources, such as West Virginia, Kentucky, Wyoming, and North Dakota, continued to rely heavily on coal to generate electricity.[86] This steep decline from historic levels is the result of more stringent air quality regulations for coal plants and the rapid increase in natural gas production and wind energy, which make coal a less desirable option for many electric utilities.[87] Calls from large electricity customers and others to decarbonize the electric grid put additional pressure on utilities to close coal-burning power plants.[88] So much so that, in 2019, U.S. renewable energy consumption surpassed coal energy consumption for the first time since 1885.[89] Nevertheless, abundant domestic coal resources and the infrastructure to mine and transport coal remain in place. To preserve investments in U.S. coal production, the industry has looked to international markets.

When U.S. natural gas and oil production surged after the commercialization of hydraulic fracturing and directional drilling, the U.S. coal

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86. *Frequently Asked Questions: What Is U.S. Electricity Generation by Energy Source?*, U.S. ENERGY INFO. ADMIN. (Mar. 5, 2021), https://www.eia.gov/tools/faqs/faq.php?id=427&t=3 [https://perma.cc/Z4QD-5LG3]; Popovich & Plumer, *supra* note 85 (charts showing percentage coal use by state between 2001 and 2019).

87. *See generally* Michael R. Drysdale, *Farewell to Coal?*, 62 ROCKY MTN. MIN. L. INST. 17-1, 17-3 (2016) (discussing the reasons domestic coal markets have declined); Scott DiSavino, *U.S. Coal-Fired Power Plants Closing Fast Despite Trump's Pledge of Support for Industry*, REUTERS (Jan. 13, 2020), https://www.reuters.com/article/us-usa-coal-decline-graphic/u-s-coal-fired-power-plants-closing-fast-despite-trumps-pledge-of-support-for-industry-idUSKBN1ZC15A [https://perma.cc/7HY9-2YRL] (reporting that the electric power industry retired more coal-fired power in 2019 than in any previous year other than 2015); Catherine Morehouse, *2020 Outlook: Coal Faces Headwinds from Aging Plants, Adverse Market Signals, and High Remediation Costs*, UTIL. DIVE (Jan. 14, 2020), https://www.utilitydive.com/news/2020-outlook-coal-faces-headwinds-from-aging-plants-adverse-market-signal/569732/ [https://perma.cc/5FLK-CUC4] (reporting on dramatic decrease in utilities' use of coal to generate electricity and experts expecting "no real turnaround" (quoting Matt Preston, Research Director of North America Coal Markets)).

88. *See, e.g.*, XCEL ENERGY, CARBON REPORT: BUILDING A CARBON FREE FUTURE 1 (2019), https://www.xcelenergy.com/staticfiles/xe/PDF/Xcel%20Energy%20Carbon%20Report%20-%20Feb%202019.pdf [https://perma.cc/GUJ3-95TF] ("[We] set an ambitious vision to reduce our carbon emissions 80 percent from 2005 levels by 2030. Longer term, we aspire to serve our customers with carbon-free electricity by 2050."); Catherine Morehouse, *Duke Energy Commits to 100% Carbon-Free Power by* 2050, UTIL. DIVE (Sept. 18, 2019), https://www.utilitydive.com/news/lng-natural-gas-critical-for-duke-energy-utility-aims-renewables-100-carbon-free-power/563128/ [https://perma.cc/9BUY-HK29] ("The utility says it is the largest power generator to announce a 100% carbon free goal and plans to double its renewable energy portfolio by 2025, up 10% from its previous goal."); Uma Outka, *"100 Percent Renewable": Company Pledges and State Energy Law*, 3 UTAH L. REV. 661, 661–64 (2019) (discussing corporate clean energy pledges and response of states and electric utilities).

89. Mickey Francis, *U.S. Renewable Energy Consumption Surpasses Coal for the First Time in Over 130 Years*, U.S. ENERGY INFO. ADMIN. (May 28, 2020), https://www.eia.gov/todayinenergy/detail.php?id=43895 [https://perma.cc/7529-MCEX]; *see also* Mark Morey, *U.S. Coal-Fired Electricity Generation in 2019 Falls to 42-Year Low*, U.S. ENERGY INFO. ADMIN. (May 11, 2020), https://www.eia.gov/todayinenergy/detail.php?id=43675 [https://perma.cc/9T7B-BJQA] (indicating that the "primary driver" of decreased coal consumption was the "increased output from natural gas-fired plants and wind turbines").

industry entered a major decline, leading to layoffs and bankruptcies across the industry. Though coal producers responded by mining less coal, there remains a coal surplus,[90] which has prompted coal producers to look for markets outside the United States.[91]

Global powers in Asia, including India and China, have continued to build new coal-fired power plants in recent years.[92] The capacity to produce coal-fired electricity in these countries is expected to increase as the demand for power continues to rise.[93] In 2019, however, both countries slowed the rate of growth for coal plants dramatically and opted for increased investments in cleaner energy sources like natural gas and renewables, leading to lower-than-predicted demand for U.S. coal.[94] China, the world's largest coal consumer, continues to build coal-fired power plants but has placed import limits on U.S. coal.[95] The

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90. *See* U.S. ENERGY INFO. ADMIN., SHORT-TERM ENERGY OUTLOOK NOVEMBER 2020 (2020), https://www.eia.gov/outlooks/steo/archives/Nov20.pdf [https://perma.cc/8ERN-628X] (indicating coal supply is greater than demand, though domestic supply has declined over time).

91. *See* Thomas F. Hoffman, *Can Exports Save the Coal Industry?*, THE HILL (Mar. 9, 2018), https://thehill.com/opinion/energy-environment/377201-can-exports-save-the-us-coal-industry [https://perma.cc/XM83-4PJ6] (discussing the ongoing political and industry hope that export markets will support U.S. production and arguing that, along with appropriate policy changes to the domestic market, exports can support current U.S. production levels)*; see also* U.S. ENERGY INFO. ADMIN., SHORT-TERM ENERGY OUTLOOK OCTOBER 2020, *supra* note 35, at 12 (indicating coal exports to India and Europe are expected to continue).

92. Damian Carrington, *Global 'Collapse' in Number of New Coal-Fired Power Plants,* THE GUARDIAN (Mar. 27, 2019), https://www.theguardian.com/environment/2019/mar/28/global-collapse-in-number-of-new-coal-fired-power-plants [https://perma.cc/NJC2-ECUC] ("China and India have accounted for 85% of new coal power capacity since 2005, according to the Global Energy Monitor report."); Simon Evans & Rosamund Pearce, *Mapped: The World's Coal Power Plants*, CARBON BRIEF (Mar. 26, 2020), https://www.carbonbrief.org/mapped-worlds-coal-power-plants [https://perma.cc/7NV5-RM9T] (indicating that the majority of new and operating coal power plants are in India, China, and other Asian countries).

93. *See* Evans & Pearce, *supra* note 92 (indicating new coal power plants are being constructed or are planned for in Asia); *China's Coal Demand to Peak Around 2025, Global Usage to Follow: Report*, REUTERS (Aug. 22, 2019), https://www.reuters.com/article/us-china-coal-climate-idUSKCN1VD0BD [https://perma.cc/5LE3-NWHL] (indicating China's coal demand will increase until 2025). *But see* Clyde Russell, *Coal Going from Winner to Loser in India's Energy Future*, REUTERS (Feb. 20, 2019), https://www.reuters.com/article/us-column-russell-coal-india/coal-going-from-winner-to-loser-in-indias-energy-future-russell-idUSKCN1Q90OP [https://perma.cc/R87Z-YFXB] (discussing the severe air quality consequences of continued reliance on coal in India and suggesting coal use may decline to address the problem).

94. *See* C.K. Hickey, *Coal-Fired Power is Declining Thanks to a Slowdown in India and China*, FOREIGN POL'Y (Nov. 26, 2019), https://foreignpolicy.com/2019/11/26/coal-fired-power-is-declining-thanks-to-a-slowdown-in-india-and-china-climate-change/ [https://perma.cc/T3J6-J6B7] ("[I]n 2019, rapidly decelerating growth in China and India led to a decline in coal production there."); *see also* Bonnie West, *U.S. Coal Exports Declined in 2019*, U.S. ENERGY INFO ADMIN. (Mar. 18, 2020), https://www.eia.gov/todayinenergy/detail.php?id=43195 [https://perma.cc/J5SF-5Y4F] (quantifying the decline in U.S. coal exports in 2019).

95. *See* Dan Murtaugh & Jing Yang, *Misery Looms Over Top Coal Shippers as China to Buy Less in 2020*, BLOOMBERG NEWS (Dec. 22, 2019), https://www.bloomberg.com/news/articles/2019-12-22/misery-looms-over-top-coal-shippers-as-china-to-buy-less-in-2020 [https://perma.cc/8WMG-HKNF] ("With more local supply to come in 2020, Chinese import controls will be a lasting feature and lead to a 25 million-ton drop in thermal coal purchases next year, Morgan Stanley estimates.").

Chinese coal market is oversupplied, leading most commentators to conclude that China will not relax the import restrictions anytime soon.[96] In India, coal burning is expected to increase only if the industry can get public-sector support and survive current economic stress.[97] Though the Indian government budgeted for increased coal funding in early 2020, with the onset of the COVID-19 pandemic, Indian coal generation dropped by nearly 30 percent.[98] And, even with slight growth in India and China, some economic analysts predict that this demand will be insufficient to return U.S. coal production to historic levels.[99]

Unlike other non-renewable resources, coal is a solid, and therefore can be shipped by rail, truck, or barge with minimal processing, meaning exporters have more transportation options than for oil or natural gas. Within the United States, rail transport dominates.[100] "[C]oal is still a crucial commodity for U.S. freight

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96. *Id.*; *see also A Glut of New Coal-Fired Power Stations Endangers China's Green Ambitions*, ECONOMIST (May 21, 2020), https://www.economist.com/china/2020/05/21/a-glut-of-new-coal-fired-power-stations-endangers-chinas-green-ambitions [https://perma.cc/SBX5-PK94] (indicating that China's coal-fired power capacity increased in 2020, despite declining demand).

97. *See* David Fickling, *View: India's Coal Growth Driven by State as Private Funds Flee*, ECON. TIMES OF INDIA (Aug. 16, 2019), https://economictimes.indiatimes.com/markets/stocks/news/view-indias-coal-growth-driven-by-state-as-private-funds-flee/articleshow/70699062.cms [https://perma.cc/237E-TVY4] (indicating that the International Energy Agency predicts a 3.9 percent rate of growth of coal consumption in India by 2023, but that "[a]s many as 65 gigawatts of the 90GW of private-sector generators connected in India are under financial stress, according to a parliamentary report last year").

98. *See* Muhammad Tabish Parray, *Is COVID-19 an Opportunity to Clean Up India's Coal Power Plants Faster?*, BROOKINGS (June 15, 2020), https://www.brookings.edu/blog/up-front/2020/06/15/is-covid-19-an-opportunity-to-clean-up-indias-coal-power-plants-faster/ [https://perma.cc/Q7Q6-KV3Q] ("On the supply side, the brunt of this fall in demand was almost entirely borne by the coal power plants, with the average coal generation decreasing to 86 GW between March 25 and April 24, 2020. On comparison with the last year for the same period, when the average coal generation was 116 GW, this accounts for a 29% decrease."). *Compare* Sudheer Singh, *Budget 2020: Coal India's Capital Outlay Seen Rising 18 Percent to Rs 9,500 Crore*, ETENERGYWORLD (Feb. 1, 2020), https://energy.economictimes.indiatimes.com/news/coal/budget-2020-coal-indias-capital-outlay-seen-rising-18-per-cent-to-rs-9500-crore/73841128 [https://perma.cc/847L-GPKR] (discussing additional government funding for coal-fired power in India), *with* Tim Buckley, *Who Would Still Fund a New Coal Power Plant in India?*, INST. FOR ENERGY ECON. & FIN. ANALYSIS (May 4, 2020), https://ieefa.org/ieefa-who-would-still-fund-a-new-coal-power-plant-in-india/ [https://perma.cc/MCE9-5ZAQ] (explaining that India continues to fund coal-fired power despite decreased demand from the COVID-19 pandemic).

99. *See* Roman Mendelevitch, Christian Hauenstein & Franziska Holz, *The Death Spiral of Coal in the U.S.: Will Changes in U.S. Policy Turn the Tide?*, 19 CLIMATE POL'Y 1310 (2019) (predicting declining U.S. coal production in all six potential global climate policy scenarios); *see also* MELISSA N. DIAZ, CONG. RSCH. SERV., R46723, U.S. ENERGY IN THE 21ST CENTURY: A PRIMER 18 (2021), https://crsreports.congress.gov/product/pdf/R/R46723 [https://perma.cc/G6FE-2B8M] ("Several key factors are likely to influence how much coal will be exported from the United States in the future, one of which is whether new export terminals are built, particularly for coal from the Powder River Basin (PRB) in Wyoming and Montana.").

100. *See What Railroads Haul: Coal*, ASS'N OF AM. R.RS. 2 (2020), https://www.aar.org/wp-content/uploads/2018/05/AAR-Railroads-Coal.pdf [https://perma.cc/YRN6-MAW3] ("69% of U.S. coal shipments in 2019 were delivered to their final destinations by rail, followed by water (12%, mainly barges on inland waterways); truck (9%); and conveyor belts (9%, mainly at minemouth plants)." (citing U.S. Energy Information Administration)); *see also Coal: Freight Rail Powers the Nation*, ASS'N OF

railroads," accounting for over 16 percent of total rail revenue.[101] As the coal industry has declined, rail revenues have suffered as well, with the rates for shipping coal plummeting as electricity costs fall.[102] Because of this, the rail industry is deeply dependent on the success of coal.[103] Like oil export facilities and unlike LNG terminals, new or expanded coal export facilities are dependent on state and local permits.[104]

Coal mining occurs in three principle regions in the inland part of the United States, called coal "basins": the Appalachian coal region (including Pennsylvania, Kentucky, and West Virginia), the Interior coal region (including Indiana and Illinois), and the Western coal region (including the Powder River Basin in Wyoming and Montana).[105] In Appalachia, mountaintop-removal mining predominates.[106] This process involves dismantling mountains while harvesting coal from seams within.[107] In the Midwest and the West, the mines are a mix of surface and underground mines, though the proportion of surface mines has increased since many underground mines have been shuttered in response to falling coal prices.[108] All of these methods require significant infrastructure and permitting investments, often made years in advance.[109] Five

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AM. R.RS., https://www.aar.org/article/freight-rail-coal/ [https://perma.cc/87FV-R48F] ("Historically, coal has been the single most important commodity carried by U.S. railroads.").

101. *What Railroads Haul: Coal*, *supra* note 100, at 1.

102. *Id.* at 2 ("As coal's share of U.S. electricity generation has fallen, so too has rail coal volumes."); *see also Railroads and Coal*, ASS'N OF AM. R.RS. 7 (2018), https://thecoalhub.com/wp-content/uploads/2018/06/AAR-Railroads-Coal.pdf [https://perma.cc/29SJ-HT27] (demonstrating a correlation between electricity cost and rail prices); MARIANNE MINTZ, CHRIS SARICKS & ANANT VYAS, ARGONNE NAT'L LAB'Y, COAL-BY-RAIL: A BUSINESS-AS-USUAL REFERENCE CASE12 (2015) ("Coal is substantially less profitable per ton or per carload than most other commodities . . . .").

103. *See* MINTZ ET AL., *supra* note 102 (explaining that coal transport accounts for the largest share of gross revenue for the rail industry, at 20 percent); *see also* Motion of BNSF Railway Company to Intervene as Plaintiff, Lighthouse Res., Inc. v. Inslee, 429 F. Supp. 736 (W.D. Wash. 2019), 2018 WL 8112625 (BNSF railway intervening in an ongoing coal industry lawsuit).

104. *See* KLASS & WISEMAN, *supra* note 13, at 41–42.

105. *Coal Explained*, U.S. ENERGY INFO. ADMIN (Oct. 8, 2020), https://www.eia.gov/energyexplained/coal [https://perma.cc/BLH5-UWEX].

106. *See* Shirley Stewart Burns, *Mountaintop Removal in Central Appalachia*, S. SPACES (Sept. 30, 2009), https://southernspaces.org/2009/mountaintop-removal-central-appalachia/ [https://perma.cc/U23M-EZK6] (explaining that mountaintop-removal mining became the predominant form of mining in the 1990s in the Appalachian region).

107. *See Mountaintop Mining Research,* U.S. ENV'T PROT. AGENCY (Aug. 12, 2020), https://www.epa.gov/water-research/mountaintop-mining-research [https://perma.cc/7K5Y-78ZY] (describing mountaintop mining in detail).

108. *See* Rosalyn Berry, *More than Half of the U.S. Coal Mines Operating in 2008 Have Since Closed*, U.S. ENERGY INFO. ADMIN. (Jan. 30, 2019), https://www.eia.gov/todayinenergy/detail.php?id=38172 [https://perma.cc/WC6Y-QQDY] (explaining that 60 percent of underground coal mines have been closed compared to 49 percent of surface coal mines).

109. *See* Memoranda of Understanding: Surface Coal Mining, U.S. Env't Prot. Agency (Apr. 7, 1999), https://www.epa.gov/cwa-404/memoranda-understanding-surface-coal-mining [https://perma.cc/L6HJ-9343] (explaining the federal permitting process for surface mining); Drysdale, *supra* note 87, at 17-8 to 17-9 (describing the federal permitting process for surface mining).

states accounted for over 70 percent of U.S. coal production in 2019—with, Wyoming contributing approximately 40 percent, West Virginia 13 percent, Pennsylvania and Illinois 7 percent each, and Kentucky 5 percent.[110] Some of these states were hardest hit by the coal industry's decline and have put enormous pressure on politicians and government officials to save the coal industry.[111]

By many measures, coal is the least environmentally friendly form of energy—making the local case for banning exports especially strong. Coal is responsible for more GHG emissions than any other source of electric energy.[112] Furthermore, coal is one of the dirtiest burning sources of energy, leading to emissions of sulfur dioxide, nitrogen oxide, particulate matter, mercury, and ash, along with carbon dioxide.[113]

II.
DORMANT COMMERCE CLAUSE DOCTRINE AND THE ENERGY EXPORT CASES

As shown in Part I, the decline of the use of coal in the United States and the growing abundance of U.S. oil and gas resources due to hydraulic fracturing have caused fossil fuel producers to look to export markets to increase profitability (in the case of oil and gas) or avoid bankruptcy (in the case of coal). However, because of the geographic distribution of these resources, fossil fuel companies can only access export markets if they can build export facilities in coastal states. Some states, like Louisiana and Texas, which have their own fossil fuel industries, generally support such projects. Other states, however, like Washington, Oregon, and California, and cities within them, oppose such

110. *Frequently Asked Questions: Which States Produce the Most Coal?,* U.S. ENERGY INFO. ADMIN. (Oct. 19, 2020), https://www.eia.gov/tools/faqs/faq.php?id=69&t=2 [https://perma.cc/3NZM-62Y8]; *see also Railroads and Coal*, *supra* note 102, at 5 (chart comparing U.S. coal production and consumption by state in 2018). Many coal-producing states export significantly more coal than they consume. For instance, Wyoming exports over 90 percent of the coal it produces. *See Coal Production & Mining*, WYO. STATE GEOLOGICAL SURV. (2020), https://www.wsgs.wyo.gov/energy/coal-production-mining [https://perma.cc/356M-8YZE] ("More than 91 percent of the coal mined in Wyoming is shipped via rail to 29 other states.").

111. *See* Mason Adams & Dustin Bleizeffer, *What's Next for Coal Country*, ENERGY NEWS NETWORK (June 23, 2020), https://energynews.us/2020/06/23/west/whats-next-for-coal-country/ [https://perma.cc/94PF-VLKA] (discussing political and economic transitions in coal-producing communities); *see also* Cooper McKim & Andrew Graham, *Wyoming Is Using Dark Money to Help Keep Coal Plants in Other States Open*, NPR (Oct. 28, 2020), npr.org/2020/10/28/926625599/wyoming-is-using-dark-money-to-help-keep-coal-plants-in-other-states-open [https://perma.cc/XWP2-VRGJ] (explaining that a Wyoming-backed nonprofit supported an Arkansas lawsuit to keep coal plants in Arkansas open).

112. *See* INT'L ENERGY AGENCY, GLOBAL ENERGY & CO2 STATUS REPORT (2019), https://www.iea.org/reports/global-energy-and-co2-status-report-2019/emissions [https://perma.cc/B7MJ-LYLA] ("Coal-fired power plants were the single largest contributor to the growth in emissions observed in 2018.").

113. *See Coal Explained*, *supra* note 105; *see also Coal and Air Pollution*, UNION OF CONCERNED SCIENTISTS (Dec. 19, 2017), https://www.ucsusa.org/resources/coal-and-air-pollution [https://perma.cc/5CM7-2ZDF] (detailing the toxic airborne pollutants associated with coal combustion and their effects); *Frequently Asked Questions: How Much Carbon Dioxide Is Produced when Different Fuels Are Burned?*, *supra* note 54 (comparing the carbon dioxide emissions of different fuels).

projects because of the local adverse environmental impacts on their citizens as well as the recognized relationship between continued fossil fuel use and global climate change.

Part II begins by providing an overview of the current dormant Commerce Clause jurisprudence before turning to pending lawsuits between fossil fuel producers and state and local governments restricting new fossil fuel export facilities. With regard to each set of lawsuits, this Section evaluates the use of the dormant Commerce Clause and dormant Foreign Commerce Clause in industry efforts to limit state and local government actions restricting these facilities. In doing so, we focus on three different energy export facilities. First, in South Portland, an industrial city on the coast of Maine, the City Council enacted the "Clear Skies" ordinance to prohibit the loading of Canadian crude oil onto ships in the city for export. Second, in Portland, Oregon, the City passed an ordinance banning construction of new bulk fossil fuel terminals and limiting the expansion of existing terminals. Third, in Washington, state regulators rejected several permits necessary for Lighthouse Resources Inc. to build a new coal export terminal at the existing Millennium Bulk Terminal in Longview, Washington.

This Section focuses on these cases in particular because each of them involves longstanding litigation over a fossil fuel export terminal where state and local governments have primary approval authority, thus triggering potential dormant Commerce Clause arguments against the state or local action. Each case involves a coal export terminal or an oil export terminal rather than an LNG export terminal even though state and local opposition to LNG facilities is similarly strong in many communities. We focus on coal and oil export terminals because, under the Energy Policy Act of 2005, Congress has delegated exclusive permitting authority for LNG export terminals to a federal agency—FERC—minimizing the ability of state and local governments to oppose such projects using state and local law. Although the litigation over LNG terminals is extensive, it primarily involves matters of federal law and does not implicate the dormant Commerce Clause; therefore, it is beyond the scope of this Article.

In each case below, fossil fuel companies have alleged a range of constitutional claims to challenge state or local barriers to these projects; in addition to alleged violations of the Commerce Clause, claims include challenges that the state and local actions violate the Supremacy Clause, Foreign Affairs Clause, Due Process Clause, and Equal Protection Clause. In each case, different federal statutes apply to the projects in question and thus resolution of the statutory claims will tend to be fact and resource specific.[114] As a result, they are not discussed in this Article except in passing. However, the Commerce Clause claims raised in each case potentially have wide-reaching effects not only in

114. *See supra* note 13 and accompanying text.

these three energy export cases but also in a range of disputes involving energy, the environment, and public health.

A. Dormant Commerce Clause Limits on State and Local Regulatory Power

The Commerce Clause of the U.S. Constitution provides that "[t]he Congress shall have Power . . . [t]o regulate Commerce with foreign Nations, and among the several States, and with the Indian Tribes."[115] Although the Commerce Clause "is framed as a positive grant of power to Congress,"[116] the Supreme Court has held for nearly two centuries that the Clause also "prohibits state laws that unduly restrict interstate commerce."[117] Known as the "negative" or "dormant" Commerce Clause, it prevents states from "adopting protectionist measures and thus preserves a national market for goods and services."[118] According to the Court, this is because "removing state trade barriers was a principal reason for the adoption of the Constitution" and because "at this point in the Court's history, no provision other than the Commerce Clause could easily do the job."[119] Thus, the Court has stated that its dormant Commerce Clause cases reflect a "central concern of the Framers" of "avoid[ing] the tendencies toward economic Balkanization that had plagued relations among the Colonies and later among the States under the Articles of Confederation."[120] Although the primary restrictions on state power arise under the Supremacy Clause—when Congress has affirmatively legislated to expressly or impliedly displace or "preempt" state law—"the dormant Commerce Clause is an implicit constitutional limitation on state authority."[121]

Notably, the Court acknowledged in 2019 that "[i]n recent years, some Members of the Court have authored vigorous and thoughtful critiques" of the use of the dormant Commerce Clause to invalidate state laws, with references to

115. U.S. CONST. art. I, § 8, cl. 3.

116. Tenn. Wine & Spirits Retailers Ass'n v. Thomas, 139 S. Ct. 2449, 2459 (2019) (quoting Comptroller of Treasury of Md. v. Wynne, 135 S. Ct. 1787, 1794 (2015)).

117. *Id.*; *see also* Felix Mormann, *Constitutional Challenges and Regulatory Opportunities for State Climate Policy Innovation*, 41 HARV. ENV'T L. REV. 189, 201–03 (2017) (discussing judicial use of the dormant Commerce Clause).

118. *Tenn. Wine & Spirits Retailers Ass'n*, 139 S. Ct. at 2459 (citing New Energy Co. v. Limbach, 486 U.S. 269, 273 (1988)).

119. *Id.* at 2460–61 (noting that the Court has limited the scope of the Import-Export Clause and Privileges and Immunities Clause of the U.S. Constitution in ways that prevent these provisions from acting as a check on state economic protectionism).

120. *Id.* at 2641 (quoting Granholm v. Heald, 544 U.S. 460, 472 (2005)); *see also* Pac. Merch. Shipping Ass'n v. Goldstene, 639 F.3d 1154, 1177 (9th Cir. 2011) (asserting that the Commerce Clause is undisputedly vital and was designed "to avoid the tendencies toward economic Balkanization" (quoting Hughes v. Oklahoma, 441 U.S. 322, 325 (1979)).

121. Farber, *supra* note 25, at 900 (discussing limits on state regulation under the dormant Commerce Clause and the Supremacy Clause).

dissenting opinions by Justices Scalia, Thomas, and Gorsuch.[122] These Justices argue that it is the role of Congress, not the courts, to decide whether to uphold the free market in the face of state economic-protectionist laws. Thus, in situations where Congress is silent, the Constitution should not serve as an independent limit on state and local economic regulation—even protectionist regulation. Under this reading, "the States are free to set the balance between protectionism and the free market."[123] Nevertheless, until that view garners a majority on the Court, dormant Commerce Clause doctrine remains a limit on state laws that interfere unduly with interstate commerce. In analyzing dormant Commerce Clause claims, the Court uses a variety of "tests" set forth below.

1. *Strict Scrutiny for Laws that Discriminate*

Under dormant Commerce Clause jurisprudence, if a state law discriminates on its face, in its purpose, or in its practical effect against "out-of-state goods or nonresident economic actors," the law is subject to strict scrutiny and the Court will uphold it only if it is "narrowly tailored" to promote "a legitimate local purpose."[124] This is because, as the Court has stressed, "[t]he principal objects of dormant Commerce Clause scrutiny are statutes that discriminate against interstate commerce."[125] Thus, the Court has invalidated state and local laws designed to exclude or place additional fees on the disposal of out-of-state hazardous or solid waste;[126] state and local laws that prohibit in-state waste from being disposed of in out-of-state landfills to ensure that private, in-state local waste processing facilities earn sufficient revenues;[127] and state laws that require in-state electric utilities to burn a certain percentage of in-state

122. *Tenn. Wine & Spirits Retailers Ass'n,* 139 S. Ct. at 2640 (citing concurring and dissenting opinions of Justices Scalia, Thomas, and Gorsuch in earlier cases); *see also* Pharm. Rsch. & Mfrs. of Am. v. Walsh, 538 U.S. 644, 683 (2003) ("[T]he negative Commerce Clause has no basis in the text of the Constitution, makes little sense, and has proved virtually unworkable in application." (quoting Camps Newfound/Owatonna, Inc. v. Town of Harrison, 520 U.S. 564, 610 (1997) (Thomas, J., dissenting))).

123. United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 354 (2007) (Thomas, J., concurring); *see also id.* at 348 (Scalia, J., concurring in part) ("The historical record provides no grounds for reading the Commerce Clause to be other than what it says—an authorization for Congress to regulate commerce.").

124. *Tenn. Wine & Spirits Retailers Ass'n*, 139 S. Ct. 2449, 2461 (2019) (citations omitted); *see also* Ky. Dep't of Rev. v. Davis, 553 U.S. 328, 338 (2008) ("A discriminatory law is 'virtually *per se* invalid.'" (quoting Or. Waste Sys. v. Dep't of Env't Quality, 511 U.S. 93, 99 (1994))).

125. CTS Corp. v. Dynamics Corp. of Am., 481 U.S. 69, 87 (1987) (citing Lewis v. BT Inv. Managers, Inc., 447 U.S. 27, 36–37 (1980); *see also* City of Philadelphia v. New Jersey, 437 U.S. 617, 623–24 (1978) (discussing the difference between legislation that promotes "economic isolation" and "protectionism" as compared to legislation that poses only "incidental burdens" on interstate commerce).

126. *See* Chem. Waste Mgmt., Inc. v. Hunt, 504 U.S. 334 (1992); Fort Gratiot Sanitary Landfill v. Mich. Dept. of Nat. Res., 504 U.S. 353 (1992); *City of Philadelphia*, 437 U.S. at 617.

127. *See* United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 357–58 (2007); C & A Carbone, Inc. v. Town of Clarkston, 511 U.S. 383, 392 (1994).

coal resources in power plants to support the in-state coal industry.[128] As a practical matter, courts rarely uphold state and local laws that they find discriminate against out-of-state interests in favor of in-state economic interests.[129]

2. *Pike Balancing Test for Nondiscriminatory Laws*

If a state or local law does not discriminate but instead regulates "evenhandedly" and imposes only an "incidental" burden on interstate commerce, the Court will apply what is known as the "*Pike* balancing test"[130] and uphold the law so long as the burden imposed on interstate commerce is not "clearly excessive in relation to the putative local benefits."[131] Thus, "not every exercise of state authority imposing some burden on the free flow of commerce is invalid."[132] Rather, "in the absence of conflicting legislation by Congress, there is a residuum of power in the state to make laws governing matters of local concern which nevertheless in some measure affect interstate commerce or even, to some extent, regulate it."[133] Notably, the Court has long recognized public health, the environment, and natural resources as legitimate matters of local concern; state laws intended to protect them justify a burden on interstate commerce so long as the laws are not motivated by an economic protectionist purpose.[134] In practice, courts rarely strike down state and local laws under the

128. *See* Wyoming v. Oklahoma, 502 U.S. 437 (1992).

129. *See* Granholm v. Heald, 544 US 460, 472 (2005) ("[I]n all but the narrowest circumstances, state laws violate the Commerce Clause if they mandate 'differential treatment of in-state and out-of-state economic interests that benefits the former and burdens the latter.'" (quoting Or. Waste Sys. v. Dep't of Env't Quality*,* 511 U.S. 93 99 (1994))). The Supreme Court has upheld a discriminatory state law only once—in Maine v. Taylor, 477 U.S. 131, 151–52 (1986)—discussed *infra* at notes 239–241 and accompanying text.

130. Pike v. Bruce Church, 397 U.S. 137, 142–43 (1970).

131. Minnesota v. Clover Leaf Creamery, 449 U.S. 445, 471 (1981) (citing Pike v. Bruce Church, 397 U.S. 137, 142 (1970)).

132. Hunt v. Wash. State Apple Advert. Comm'n, 432 U.S. 333, 349–50 (1977) (citations omitted).

133. *Id.* at 350 (quoting S. Pac. Co. v. Arizona, 325 U.S. 761, 767 (1945)).

134. *See* Bibb v. Navajo Freight Lines, 359 U.S. 521, 524 (1959) ("The regulation of highways 'is akin to quarantine measures, game laws, and like local regulation of rivers, harbors, piers, and docks, with respect to which the state has exceptional scope for the exercise of its regulatory power, and which, Congress not acting, have been sustained even though they materially interfere with interstate commerce.'" (quoting Southern Pacific Co. v. Arizona, 325 U.S. 761, 783 (1945))); Maine v. Taylor, 477 U.S. 131, 148 (1986) ("[T]he constitutional principles underlying the commerce clause cannot be read as requiring the State of Maine to sit idly by and wait until potentially irreversible environmental damages has occurred or until the scientific community agrees on what disease organisms are or are not dangerous before it acts to avoid such consequences." (alteration in original) (quoting United States v. Taylor, 585 F. Supp. 393, 397 (Me. 1984))); *Clover Leaf Creamery*, 449 U.S. at 471 (citing "environmental protection and resource conservation" as areas of "legitimate local concern" although such legislation is "limited by the Commerce Clause" and will not be upheld if it is "in reality 'simple economic protectionism'" (quoting City of Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978))).

Pike balancing test,[135] and some Justices on the Court have rejected the *Pike* test completely on the grounds that courts should not interfere with state economic prerogatives.[136]

3. Extraterritoriality Doctrine

Another basis on which courts can invalidate state laws under the dormant Commerce Clause is known as the "extraterritoriality" doctrine. Under this principle, a state law that does not discriminate against interstate commerce or out-of-state economic actors can still be held per se invalid if it has the effect of regulating commerce occurring wholly outside the state's borders.[137] Many cases involving the extraterritoriality doctrine involve state price-control laws—where a state places restrictions on pricing decisions for goods based on prices charged for that good in other states.[138]

The extraterritoriality doctrine as a separate strand of dormant Commerce Clause jurisprudence has been subject to criticism, particularly by Justice Gorsuch. In a 2015 case evaluating a Colorado mandate on renewable electricity, Justice Gorsuch, then a judge on the U.S. Court of Appeals for the Tenth Circuit, concluded that the doctrine should be limited to state price-control laws, to the extent it should have any application at all.[139] Moreover, in 2003, the Supreme Court declined to apply the extraterritoriality doctrine to a Maine law involving

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135. *See* Dep't of Revenue v. Davis, 553 U.S. 328, 339 (2008) (stating that "[s]tate laws frequently survive [] *Pike* scrutiny" and questioning whether the Court is "institutionally suited" to draw the conclusions necessary for the *Pike* analysis at all in certain cases).

136. *See, e.g.*, United Haulers Ass'n v. Oneida-Herkimer Waste Mgmt. Auth., 550 U.S. 330, 342, 348–49 (2007) (Scalia, J. concurring in part) (criticizing use of *Pike* balancing test on the grounds that "the balancing of various values is left to Congress—which is precisely what the Commerce Clause (the *real* Commerce Clause) envisions"); *id.* at 349 (Thomas, J., concurring in the judgment) ("The negative Commerce Clause has no basis in the Constitution and has proved unworkable in practice.").

137. *See* Healy v. Beer Inst., 491 U.S. 324, 336 (1989); Brown-Forman Distillers Corp. v. N.Y. State Liquor Auth., 476 U.S. 573, 582 (1986); Edgar v. MITE Corp., 457 U.S. 624, 642–43 (1982); Baldwin v. G.A.F. Seelig, 294 U.S. 511, 521–22 (1935).

138. *See Healy*, 491 U.S. at 328 (striking down state law that required beer distributors to affirm that prices they charged in Connecticut were no higher than prices charged in neighboring states); *Brown-Forman Distillers Corp.*, 476 U.S. at 575–76, 585 (invalidating a New York statute that required liquor distillers to charge New York wholesalers a price no higher than the lowest price charged to wholesalers in other states); Energy & Env't Legal Inst. v. Epel, 793 F.3d 1169, 1172–75 (10th Cir. 2015) (Gorsuch, J.). *But see* North Dakota v. Heydinger, 825 F.3d 912, 919–23 (8th Cir. 2016) (invalidating Minnesota law prohibiting import of new coal-fired power into the state, with one judge finding the law violated the extraterritoriality doctrine of the dormant Commerce Clause and the two other panel judges finding the law invalid because it was preempted by federal law but not because it violated the extraterritoriality doctrine); Nat'l Solid Waste Mgmt. Ass'n v. Meyer, 165 F.3d 1151, 1153 (7th Cir. 1999) (applying extraterritoriality doctrine to Wisconsin statute prohibiting solid waste from being disposed in the state unless the in-state or out-of-state community in which the waste was generated enacted a recycling ordinance that met Wisconsin's specifications); Legato Vapors, LLC v. Cook, 847 F.3d 825, 831, 837 (7th Cir. 2017) (invalidating on extraterritoriality grounds Indiana law imposing detailed requirements on the out-of-state manufacture and distribution of vapor pens and the liquids used in e-cigarettes sold in the state).

139. *Energy and Env't Legal Inst.*, 793 F.3d at 1173–75.

Medicaid drug rebates, finding that the law was not intended to control drug prices outside the state.[140] Scholars, too, have alleged that the extraterritoriality doctrine is "unsettled and poorly understood" and should not be used to apply strict scrutiny to state laws.[141] Nevertheless, courts have continued to apply the doctrine in price-control cases as well as more broadly.[142]

4. *Dormant Foreign Commerce Clause*

Finally, the Supreme Court has also recognized that the Commerce Clause contains an implicit limit on state interference with commerce with foreign nations. "It is a well-accepted rule that state restrictions burdening foreign commerce are subjected to a more rigorous and searching scrutiny" because of the importance of the federal government to "speak with one voice when regulating commercial relations with foreign governments."[143] In such cases alleging violation of the so-called "dormant Foreign Commerce Clause," courts have generally required the party challenging the law to show that the law "impair[s] federal uniformity in an area where federal uniformity is essential" and to provide the court with evidence of congressional intent regarding the need for federal uniformity.[144]

Notably, the Court has rejected the idea that executive branch policy statements regarding the need for federal uniformity in an area involving foreign commerce suffice to make that showing.[145] Scholars have criticized the doctrine on the grounds that the Court has "limited competence" in determining whether a state law interferes with foreign affairs as well as the fact that the dormant Foreign Commerce Clause "lacks a sound textual foundation because the grant

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140. Pharm. Rsch. & Mfrs. of Am. v. Walsh, 538 U.S. 644, 669 (2003); *see also* Brannon P. Denning, *Extraterritoriality and the Dormant Commerce Clause: A Doctrinal Post-Mortem*, 73 LA. L. REV. 979, 979 (2013) (citing to the Supreme Court's decision in *Pharmaceutical Research & Manufacturers* to declare that "[a]t this point, the extraterritoriality principle looks to be quite moribund").

141. *See* Jack L. Goldsmith & Alan O. Sykes, *The Internet and the Dormant Commerce Clause*, 110 YALE L.J. 785, 789 (2001) (critiquing the doctrine).

142. *See supra* notes 136–138 (citing cases).

143. South-Central Timber Dev., Inc. v. Wunnicke, 467 U.S. 82, 100 (1984) (citing Michelin Tire Corp. v. Wages, 423 U.S. 276, 285 (1976)); *see also* Japan Line, Ltd. v. County. of Los Angeles, 441 U.S. 434, 449 (1979); David H. Moore, *Beyond One Voice*, 98 MINN. L. REV. 953 (2014) (discussing various theories supporting the "one voice" doctrine, concluding that they fail to justify the doctrine, and that the doctrine should be abandoned).

144. Barclays Bank PLC v. Franchise Tax Bd., 512 U.S. 298, 320–28 (1994); *see also* Pac. Nw. Venison Producers v. Smitch, 20 F.3d 1008, 1010–14 (9th Cir. 1994) (holding state ban on possessing or importing "deleterious exotic wildlife" was not an area where national uniformity was important, and noting that most states and Canadian provinces ban some wildlife species and that the species banned differ from state to state).

145. The foreign affairs power has, however, been used to preempt state actions that are inconsistent with executive branch actions. *See generally* Leanne M. Wilson, *The Fate of the Dormant Foreign Commerce Clause After* Garamendi *and* Crosby, 107 COLUM. L. REV. 746, 746–49 (2007) (discussing the relationship between the dormant foreign Commerce Clause and the foreign affairs power); *Barclays Bank PLC*, 512 U.S. at 328–330.

of commerce authority to Congress does not necessarily bar state regulation of the same commerce."[146]

B. The Energy Export Cases

The three energy export cases discussed below are at different stages of litigation, involve different resources, and include both state and local government actors. In each case, however, courts must address the question of what role the dormant Commerce Clause plays in limiting the ability of the state or local government to advance a legislatively determined interest in protecting human health and the environment.

1. South Portland, Maine, Enacts "Clear Skies" Ordinance

This case concerns a local ordinance that restricted loading crude oil in the city. The plaintiff, a pipeline company, challenged the ordinance on the grounds that it was discriminatory on its face and in its effect. The U.S. District Court for the District of Maine held that the law was not discriminatory because there were no substantially similar local entities that benefitted from the law. Furthermore, the District Court held that the law was not discriminatory in effect because it was evenhanded and did not completely restrict the export of crude oil. This case is significant for the developing law of energy exports because it illustrates a narrow view of the relevant "market" for dormant Commerce Clause analysis that is well supported in the Supreme Court's jurisprudence on the topic.

In South Portland, Maine, a commercial hub for the state, three pipelines owned by the Portland Pipeline Corporation (PPLC) connect inland crude oil transportation to vessels docked in the South Portland Harbor. The pipelines, which are twelve-, eighteen-, and twenty-four-inch lines, have transported crude oil from South Portland to Montreal, Canada, nearly continuously since they were built in 1941, 1950, and 1965, respectively.[147] In 2008, anticipating an increase in Canadian crude oil production, PPLC invested $5 million to reverse the flow of the eighteen-inch pipeline to allow oil to travel from Canada to South Portland Harbor for export.[148] PPLC began the process to obtain the requisite

146. Ryan Baasch & Saikrishna Bangalore Prakash, *Congress and the Reconstruction of Foreign Affairs Federalism*, 115 MICH. L REV. 47, 65 (2016).

147. *See* Portland Pipe Line Corp. v. City of South Portland, 332 F. Supp. 3d 264, 272–73 (D. Me. 2018) (explaining the history of the pipelines in South Portland), *amended by* 2018 WL 4901162 (D. Me. Oct. 9, 2018) (amending the judgment to substitute parties); *see also About Us*, PORTLAND-MONTREAL PIPE LINE, http://www.pmpl.com/about-us/ [https://perma.cc/MQ2T-6B5Q] ("Since it first opened in the autumn of 1941, [the Portland-Montreal Pipe Line] has delivered over 5 billion barrels of crude oil to Canada.").

148. *See Portland Pipe Line Corp.*, 332 F. Supp. 3d at 274 ("PPLC invested substantial money and effort in advancing its flow reversal project, spending approximately $5 million on consultants to determine the necessary changes to its infrastructure, to model the economics, and to identify necessary permits.").

state and local permits but the 2008 financial crisis led PPLC to postpone the project.[149]

Although PPLC determined that the economic outlook had improved by 2013 and thus sought to pursue its plans with slight modifications,[150] the political climate at that time was less favorable. The South Portland City Council responded by enacting a temporary "Moratorium on Development Proposals Involving the Loading of Oil Sands/Tar Sands Products onto Tank Vessels Docking in South Portland" to give the City time to issue an appropriate ordinance on the topic.[151] Then, in 2014, the City Council enacted the "Clear Skies Ordinance," which prohibits the "'storing and handling of petroleum and/or petroleum products' for the 'bulk loading of crude oil onto any marine tank vessel'" in the city's commercial and shipyard zoning districts.[152] The ordinance halted PPLC's plan to export oil via South Portland. PPLC challenged the ordinance on multiple grounds, including violation of the dormant Commerce Clause and the dormant Foreign Commerce Clause, preemption under the Supremacy Clause based on multiple federal and state statutes, foreign affairs preemption, and violations of due process and equal protection.[153]

PPLC and the City disagreed over whether the ordinance was discriminatory. PPLC argued that the ordinance was discriminatory because "the practical effect of the Ordinance [was] to prevent the import of Canadian oil through pipelines for further export through the [Port of Portland Harbor], while allowing the import of non-Canadian crude oil, and carefully imposing no burdens on other local oil-related businesses."[154] In response, the City argued that the ordinance did not limit trade with Canada but instead was an evenhanded land use regulation, which only restricted the method of loading crude oil onto ships.[155] Furthermore, the City argued there were no "similarly situated" in-state

149. *Id.*

150. *Id.* at 276.

151. *Id.* at 281; South Portland, Maine, Ordinance 2-13/14 (repealed 2014) (enacting the temporary moratorium); *see also* David Harry, *South Portland Planners Endorse 180-Day Tar Sands Oil Moratorium Proposal*, BANGOR DAILY NEWS (Dec. 4, 2013), https://bangordailynews.com/2013/12/04/news/south-portland-planners-endorse-180-day-tar-sands-oil-moratorium-proposal [https://perma.cc/S346-ZABN] (explaining that the ordinance was sent to the City Council by the South Portland Planning Board by a 4-2 vote).

152. *Portland Pipe Line Corp.*, 332 F. Supp. 3d at 282 (quoting South Portland, Maine, Ordinance 1-14/15, at 8–10 (July 21, 2014)); *see also* South Portland, Maine, Ordinance 1-14/15 (July 21, 2014) (enacting the "Clear Skies Ordinance"); South Portland, Maine, Ordinance 2-14/15 (July 21, 2014) (repealing the temporary moratorium).

153. Complaint for Declaratory and Injunctive Relief at 21–34, *Portland Pipe Line Corp.*, 332 F. Supp. 3d 264 (No. 2:15-cv-00054-JAW).

154. Plaintiff's Post-Trial Reply Brief at 47, *Portland Pipe Line Corp.*, 332 F. Supp. 3d 264 (No. 2:15-cv-00054-JAW).

155. *See, e.g.*, *Portland Pipe Line Corp.*, 332 F. Supp. 3d at 309 (indicating that the ordinance continues to allow for loading of crude oil at Rigby Yard railyard).

and out-of-state interests, which would be required to establish a discriminatory effect.[156]

The U.S. District Court for the District of Maine granted summary judgment for the City on all counts. The district court agreed with the City and held that the dormant Commerce Clause analysis "assumes a comparison of substantially similar entities"[157] "In the absence of actual or prospective competition between the supposedly favored and disfavored entities in a single market there can be no local preference, whether by express discrimination against interstate commerce or undue burden upon it, to which the dormant Commerce Clause may apply."[158] Accordingly, it concluded, "[t]he fatal flaw in PPLC's discrimination argument is that there can be no disparate burden on interstate or foreign competitors when there are no such competitors."[159] The court also determined that the ordinance did not have the practical effect of completely blocking the flow of crude oil from Canada because (1) several other sources of Canadian oil entering South Portland continued and (2) "[j]ust because commerce in a market originates in another state or country does not mean that otherwise evenhanded regulations or prohibitions on that market automatically have the 'practical effect' of discriminating against interstate or foreign commerce."[160]

After concluding that the ordinance was not discriminatory, the court then applied the *Pike* balancing test to determine whether the ordinance's burden on interstate commerce was "clearly excessive in relation to the putative local benefits."[161] In doing so, the court found the ordinance provided local benefits by addressing multiple issues: local residents' concerns about air pollution and related public health risks associated with renewed use of the main tank farm, odor concerns associated with the tank farm, aesthetic and noise impacts at nearby recreational locations, renewed tanker traffic, reduced redevelopment opportunities due to renewed heavy industry in the area, and increased risks to nearby "local land and coastal environment and elevated public health risks from pipeline accidents or spills of crude oil derived from tar sands."[162] The court applied the *Pike* balancing test to conclude that these local benefits outweighed the "[f]inancial losses to shareholders and workers in the relevant industries" resulting from the ordinance.[163]

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156. *Id.* at 293 (explaining the City's arguments).

157. *Id.* at 300 (quoting Gen. Motors Corp. v. Tracy, 519 U.S. 278, 298 (1997)).

158. *Id.* (quoting *Tracy*, 519 U.S. at 298).

159. *Id.* at 300.

160. *Id.* at 302. The court also rejected the argument that literature distributed by ordinance proponents with the phrase "stop out-of-state big oil companies from building a tar sands export terminal in South Portland" as well as comments about "[foreign] oil" during the regulatory proceedings demonstrated that the City Council had a discriminatory intent in enacting the ordinance. *Id.* at 303.

161. *Id.* at 308; *see also* Pike v. Bruce Church, Inc., 397 U.S. 137 (1970), for an explanation of "*Pike*" balancing.

162. *Portland Pipe Line Corp.*, 332 F. Supp. 3d at 310.

163. *Id.* at 309.

Finally, PPLC argued that the ordinance violated the dormant Foreign Commerce Clause by interfering with the federal government's ability to "speak with one voice." PPLC suggested there is a potential for harmful regulatory fragmentation and retaliation by other nations if individual localities can stop international trade using local ordinances.[164] As evidence of a national policy encouraging international oil trade with Canada, PPLC cited the U.S.-Mexico-Canada Agreement and the North American Free Trade Agreement, as well as the 1977 Transit Pipelines Agreement.[165]

The district court rejected the argument, reasoning that "[e]ven if enacted in many other jurisdictions, there will be no inconsistent burdens requiring pipeline operators to choose between complying with one state or local command or another."[166] Though it recognized that there would be some effect on the oil industry in general and the Canadian oil industry in particular, the district court reasoned that could be true of any local regulation affecting a global industry. Thus, the mere fact that a locality regulates a global industry does not inherently interfere with the federal government's ability to "speak with one voice."[167] The case is on appeal to the First Circuit, which had stayed the proceedings and certified to the Maine Supreme Court the issue of whether state law governing permits for oil transfers in state waters expressly or impliedly preempted the local ordinance.[168] The Maine Supreme Court resolved the state law issues in favor of South Portland.[169]

2. *Portland, Oregon, Prohibits Bulk Fossil Fuel Terminals*

This case involves a local ordinance in Portland, Oregon, that restricted the size of fossil fuel export terminals. The plaintiff petroleum groups challenged the restriction as a violation of the dormant Commerce Clause on the grounds that it had discriminatory effects on out-of-state fossil fuel producers. The Oregon Court of Appeals rejected the plaintiffs' arguments, holding that a dormant Commerce Clause analysis requires a comparison of "substantially similar entities." Since no similar entities—fossil fuel producers—existed in Oregon, there could be no dormant Commerce Clause violation. Like the case of the ordinance in South Portland, Maine, this case highlights the importance of how courts define the "relevant market" for purposes of determining

164. *Id.* at 314–15; *see also* Brief of Appellants at 44, *Portland Pipe Line Corp.*, 332 F. Supp. 3d 264 (No. 2:15-cv-00054-JAW).

165. *Id.* at 35–38.

166. *Portland Pipe Line Corp.*, 332 F. Supp. 3d at 315.

167. *Id.* at 315–16 ("Any local regulation or prohibition on a large and important industry will inevitably touch on federal commerce in a broad sense, given the realities of a modern globalized economy. But that does not mean it impermissibly interferes with the government's ability to 'speak with one voice' when regulating foreign commerce.").

168. *See* Portland Pipe Line Corp. v. City of South Portland, 947 F.3d 11, 12–13 (1st Cir. 2020).

169. Portland Pipe Line Corp. v. City of South Portland, 240 A.3d 364, 365–66 (Me. 2020).

discrimination against interstate commerce and will be critical in evaluating many of the pending and future cases involving energy exports.

In 2015, the Portland City Council passed a resolution to "actively oppose expansion of infrastructure whose primary purpose is transporting or storing fossil fuels in or through Portland or adjacent waterways."[170] The City later amended its zoning ordinance to prohibit new "bulk fossil fuel terminals" and the expansion of current terminals.[171] Functionally, the city ordinance prohibited any new fossil fuel terminals capable of storing more than two million gallons of fossil fuel but allowed smaller facilities.[172]

These changes were intended, at least in part, to limit fossil fuel exports.[173] Less than two years before the City enacted the ordinance, the City was prepared to approve a plan to build a propane export terminal.[174] But, the mayor later changed course "amid a vocal backlash by activists and Portland residents worried about the potential environmental and public safety risks of the terminal and the trains that would be used to supply it."[175]

Petroleum trade groups and a local business coalition looking for another chance to build an export terminal, or at least expand current operations in Portland, challenged the ordinance by arguing that the City violated the dormant Commerce Clause.[176] Pursuant to state procedure, the first body to hear the claim was the Oregon Land Use Board of Appeals, which determined that the

170. Portland, Or. City Council Res. 37168 (adopted Nov. 12, 2015), https://www.portlandoregon.gov/citycode/article/557499 [https://perma.cc/P6BA-WVCU].

171. PORTLAND, OR., ORDINANCE NO. 188142 (2016).

172. *Id.*; Columbia Pac. Bldg. Trades Council v. City of Portland, 412 P.3d 258, 264 (Or. Ct. App. 2018).

173. Columbia Pac. Bldg. Trades Council v. City of Portland, 2017 WL 3333014, at *6 (Or. Land Use Bd. of Appeals July 19, 2017) ("[O]ne of the city's stated purposes of the FFT amendments is to effectively prohibit the siting of fossil fuel export terminals in the city."); *see also* Ted Sickinger, *Portland City Council Bans New Bulk Fossil Fuel Terminals*, OREGONIAN (Jan. 9, 2019) [hereinafter *Portland City Council Bans New Bulk Fossil Fuel Terminals*], https://www.oregonlive.com/portland/2016/12/portland_city_council_bans_new.html [https://perma.cc/JN9X-T24H] (discussing Portland Mayor Charlie Hales's concern about global warming and the city's role in responding "specifically about developing a fossil fuel export policy").

174. *See* Ted Sickinger, *Pembina Chief Provides First Details on Proposed Propane Export Facility in Portland*, OREGONIAN (Jan. 10, 2019), https://www.oregonlive.com/business/2014/09/pembina_chief_provides_first_d.html [https://perma.cc/4FPC-U85X] (discussing the planned export facility); Sickinger, *supra* note 173 ("Eighteen months ago, the city was on the brink of approving Calgary-based Pembina Pipeline Corp.'s plan to build a propane export terminal at the Port of Portland's Terminal 6, opposite West Hayden Island.").

175. Sickinger, *supra* note 173. The project failed when the mayor declined to bring a necessary zoning change, not as a result of the new ordinances.

176. *See Columbia Pac. Bldg. Trades Council*, 2017 WL 3333014, at *27; Gregory Scruggs, *Feature – On the Road to Zero Carbon, Portland Pinches Off Fossil Fuels*, REUTERS (Oct. 4, 2018), https://www.reuters.com/article/usa-climatechange-portland/feature-on-the-road-to-zero-carbon-portland-pinches-off-fossil-fuels-idUKL8N1WA3BK [https://web.archive.org/save/https://www.reuters.com/article/usa-climatechange-portland/feature-on-the-road-to-zero-carbon-portland-pinches-off-fossil-fuels-idUSL8N1WA3BK] ("Portland was hit by a legal challenge from petroleum trade groups and a local business coalition.").

ordinance violated the dormant Commerce Clause because "the city attempt[ed] to limit its participation in the traffic of fossil fuels, which the city clearly deem[ed] to be an undesirable commodity."[177] The Board acknowledged that the ordinance did not intend to bolster local industry to the detriment of similar interests in other states, but concluded that it nonetheless infringed upon a power intended for Congress.[178]

The Oregon Court of Appeals reversed the Board's decision, holding that the dormant Commerce Clause's discriminatory effect analysis requires comparison of "substantially similar entities."[179] Based on this, the court of appeals concluded that the Board improperly compared the ordinance's burden on out-of-state sellers of fossil fuels with favorable treatment toward in-state purchasers because it misidentified the relevant market.[180] Instead, since Oregon had no in-state producers of fossil fuels, the law could not be discriminatory in effect.[181] Furthermore, the court characterized the ordinance as one that was not about limiting fossil fuel exports, but about limiting the size of facilities in Portland, which the court found not discriminatory.[182] The Oregon Supreme Court declined to review the decision.[183]

3. *Washington State Blocks Millennium Bulk Coal Export Facility*

This Section considers Washington State's regulatory agency decisions to deny permits for a new coal export terminal. As described below, the dispute involves numerous state and federal legal challenges, including an original action in the Supreme Court filed by the states of Montana and Wyoming against Washington. While many of these lawsuits were still pending at the time of publication, the parties' arguments and the decisions to date are valuable for

177. *Columbia Pac. Bldg. Trades Council*, 2017 WL 3333014 at *27.

178. *See id.* ("While not a classic form of economic protectionism vis-à-vis out-of-state competitors, in our view a law that embodies the above goals represents a species of protectionism and burden-shifting that infringes on Congress's latent authority under the Commerce Clause.").

179. Columbia Pac. Bldg Trades Council v. City of Portland, 412 P.3d 258, 263 (Or. Ct. App. 2018) (citing Gen. Motors Corp. v. Tracy, 519 U.S. 278, 298–99 (1997)).

180. *Columbia Pac. Bldg. Trades Council*, 412 P.3d at 264 ("Here, it is inappropriate to compare out-of-state bulk *exporters* of fossil fuels (refineries and distributors of fuel) to in-state end *users* of bulk fossil fuels in a claim of economic discrimination. That is not the comparison that the United States Supreme Court has insisted upon when comparing 'substantially similar entities' in and out of state." (citing *General Motors Corp*., 519 U.S. at 298–99)).

181. *Id.* at 265 ("Oregon has no in-state economic entities that are involved in the refining or distribution of fossil fuels.").

182. *Id.* ("[T]he amendments do not bar the interstate delivery of out-of-state products, here fossil fuels, into Oregon. Indeed, the amendments do not prohibit fuel exports to or through Portland, but place restrictions on the size of certain fuel terminals that may be used as export facilities.").

183. Columbia Pac. Bldg. Trades Council v. City of Portland, 363 Or. 390 (Or. 2018) (denying cert.); *see* Steve Law, *Court Decision Means Portland Can Sharply Restrict Fossil Fuel Terminal Expansion*, PAMPLIN MEDIA GRP. (July 31, 2018), https://pamplinmedia.com/sl/402320-298953-court-decision-means-portland-can-sharply-restrict-fossil-fuel-terminal-expansion- [https://perma.cc/QU4D-A3SP] ("[T]he Oregon Supreme Court declined to review an Oregon Court of Appeals decision from January that upheld the city's constitutional right to enact the ordinance.").

purposes of developing the growing body of case law surrounding the application of the dormant Commerce Clause to energy exports. They are particularly useful regarding the intersection of dormant Commerce Clause doctrine with state and local authority over local land use decisions and environmental protection.

Millennium Bulk Terminals-Longview (Millennium Bulk) is located along the Columbia River in Longview, Washington.[184] For more than sixty years, the 540-acre site was home to an aluminum smelting facility.[185] In February 2012, Millennium Bulk's owner, Lighthouse Resources, began the process to sublease the aquatic lands at the site, which are owned by the State of Washington, and convert them to an export facility by applying for permits to lease and operate the site.[186] This prompted a nearly decade-long legal and regulatory battle with the State of Washington and Cowlitz County to obtain permits for the site. Notably, the coal industry has attempted to build several coal export facilities in Washington and Oregon over the past decade, but with the exception of Millennium Bulk, has abandoned virtually all of them in the face of local opposition.[187]

If built, Millennium Bulk would be the largest coal export terminal on the West Coast, with capacity to load forty-four million metric tons of coal per year for export to Asia.[188] The facility would offload coal from Utah, Montana, and

184. *See e.g. Millennium Bulk Terminals*, LIGHTHOUSE RES. INC., https://www.lighthouseresourcesinc.com/projects [https://perma.cc/4Q2G-EWWY] ("Millennium Bulk Terminals-Longview (MBT-Longview) is a bulk materials port on the Columbia River in Washington.").

185. *Description of the Proposed Action*, MILLENNIUM BULK TERMINALS-LONGVIEW, https://www.millenniumbulkeiswa.gov/project-details.html [https://perma.cc/ECV2-5SPQ]; *Millennium Bulk Terminals: Millennium Overview*, MILLENNIUM BULK TERMINALS-LONGVIEW, https://c7076723-01e9-4a2c-90f6-4ae413be482e.filesusr.com/ugd/8d16ad_a2eaa2dcb5a74d4a947e6a32ecb2fe07.pdf [https://perma.cc/A6VB-CY24].

186. *Millennium Bulk Terminals Longview*, WASH. STATE DEP'T OF ECOLOGY [hereinafter *Millennium Bulk Terminals Longview SEPA Analysis*], https://ecology.wa.gov/Regulations-Permits/SEPA/Environmental-review/SEPA-at-Ecology/Millennium#timeline [https://perma.cc/7ZW7-SLEE].

187. *See* KLASS & WISEMAN, *supra* note 13, at 39–45 (discussing proposed and abandoned West Coast coal export facilities).

188. *See Description of the Proposed Action*, *supra* note 185 (indicating forty-four million tons of export capacity); Cooper McKim, *WA Coal Export Terminal Reaches Significant Roadblock*, WYO. PUB. RADIO (Aug. 22, 2019), https://www.kunc.org/2019-08-22/wa-coal-export-terminal-reaches-significant-road-block [https://perma.cc/ZU2V-RL53] (explaining the terminal would ship approximately forty-four million tons of coal per year); Valerie Volcovici, *Company Sues Washington State for Blocking Coal Exports to Asia*, REUTERS (Jan. 4, 2018), https://www.reuters.com/article/us-usa-coal-export/company-sues-washington-state-for-blocking-coal-exports-to-asia-idUSKBN1ES1UG [https://perma.cc/QR96-PD5Q] (discussing that the terminal would ship coal mined in the Western U.S. to Asian markets). For comparison, in 2019, China consumed an estimated 3.89 billion metric tons of coal and India consumed 452 million tons of coal in 2018. *See, e.g.*, Michael Lelyveld, *China Increases Coal Use and Climate Concerns*, RADIO FREE ASIA (Mar. 25, 2019) https://www.rfa.org/english/commentaries/energy_watch/china-increases-coal-use-03252019111254.html [https://perma.cc/J6EB-K2VT]; *India Coal Consumption*, CEIC https://www.ceicdata.com/en/indicator/india/coal-consumption [https://perma.cc/T83G-PDM9].

Wyoming, with rail transportation to the terminal provided by either BNSF Railway Company or Union Pacific.[189] Millennium estimated $600 million of upgrades would be necessary to transform the facility into a coal export site and to conduct necessary environmental remediation.[190]

Development stalled because Washington State regulators refused to grant several required permits for the project: (1) Washington State Department of Natural Resources (DNR) denied a request to sublease; (2) Washington State Department of Ecology denied Section 401 Clean Water Act certification due to the facility's impacts on a range of environmental, aesthetic, and cultural resources; and (3) Cowlitz County denied two shoreline permits on environmental grounds. Lighthouse challenged these actions in state and federal court.[191]

The state suit concerns DNR's power to deny the request to sublease.[192] In 2019, the Washington Court of Appeals determined that DNR could deny the request to sublease because DNR had a constitutional duty to maintain land in the public trust and DNR had determined, in its agency discretion, that Millennium Bulk would not be a good tenant.[193]

Lighthouse filed a federal complaint in 2018, alleging that Washington's denial of Section 401 Clean Water Act certification violated the foreign and domestic Commerce Clause and the General Agreement on Trade and Tariffs and that it was preempted by various federal statutes, including federal laws regulating railroads.[194] BNSF Railway Company later intervened and added an explicit foreign affairs doctrine claim.[195] In two separate orders, the U.S. District

189. *See Description of the Proposed Action*, *supra* note 185 ("BNSF Railway Company (BNSF) or Union Pacific Railroad (UP) trains would transport coal in unit trains."); Volcovici, *supra* note 188 (explaining that the coal would come from the western United States); *see also* Appellants' Joint Opening Brief at 29 n.65, Lighthouse Res., Inc. v. Inslee, No. 19-35415, 2019 WL 5858329 (9th Cir. Oct. 30, 2019) (citing expert testimony estimating that "defendants' actions conservatively wreak *$18 billion* of havoc on Montana, Wyoming, Colorado, and Utah, costing *'over 3,900 jobs annually'*" (citations omitted)).

190. *See* MICHAEL HODGINS, JAY ROGERS & EMMY MCCONNELL, BERK, ECONOMIC & FISCAL IMPACTS OF MILLENNIUM BULK TERMINALS LONGVIEW iv (2012), https://c7076723-01e9-4a2c-90f6-4ae413be482e.filesusr.com/ugd/8d16ad_c5942b5b0555480fad31c2facfc3d862.pdf [https://perma.cc/7XD2-T78C] ("Millennium will be investing an estimated $600 million in this multi-year construction project which will result in a state-of-the-art facility to support the increasing global demand for coal.").

191. *Millennium Bulk Terminals Longview SEPA Analysis*, *supra* note 186.

192. Nw. Alloys, Inc. v. Dep't of Nat. Res., 447 P.3d 620, 628 (Wash. Ct. App. 2019).

193. *Id.* ("We reverse the superior court's order concluding that DNR acted arbitrarily and capriciously by denying NWA consent to sublease state-owned aquatic lands to Millennium, and we vacate the superior court's remedy order, and order the superior court to issue a new order affirming DNR's denial.").

194. Complaint for Declaratory and Injunctive Relief at 47–51, Lighthouse Res., Inc. v. Inslee, 429 F. Supp. 3d 736 (W.D. Wash. 2019) (No. 18-cv-5005), 2018 WL 316729.

195. Intervenor-Plaintiff BNSF Railway Company's Complaint in Intervention for Declaratory and Injunctive Relief at 20–25, *Lighthouse Res., Inc*, 429 F. Supp. 3d 736, (No. 18-cv-5005), 2018 WL 8112564.

Court for the Western District of Washington granted the state's motions for summary judgment on the federal preemption and foreign affairs claims.[196] Then, prior to completion of briefing on the motions for summary judgment on the dormant Commerce Clause and foreign dormant Commerce Clause claims, the court issued a stay in the lawsuit under the *Pullman* abstention doctrine until the state court proceedings were completed.[197] Lighthouse and BNSF appealed the dismissal of the preemption claims, as well as the propriety of the stay on the dormant Commerce Clause claims, to the U.S. Court of Appeals for Ninth Circuit.[198]

Many of the legal arguments in the federal lawsuit are similar to those in the South Portland, Maine, and Portland, Oregon, cases and thus are not detailed here. However, two new arguments arose in this case. Washington argued that, because the case concerned its actions pursuant to a federal statute—the Clean Water Act—the dormant Commerce Clause did not apply. Washington characterized the Clean Water Act as an unambiguous statement by Congress that Washington *could* interfere with interstate and foreign commerce.[199] Lighthouse also raised additional arguments in its appeal to the Ninth Circuit regarding the dormant Foreign Commerce Clause that are informative. In particular, Lighthouse argued that the mere existence of any federal policy statements implicates the "one voice" analysis that triggers heightened scrutiny for state action that interferes with foreign commerce.[200] Lighthouse pointed specifically to former Secretary of the Interior Ryan Zinke's Order 3348, which lifted an Obama-era moratorium on federal coal leases, as evidence of a federal policy to "export [coal] to U.S. allies," among other purposes.[201] Lighthouse also argued there is a "clear federal policy favoring coal exports" based on executive branch statements, which it asserted are sufficient to establish the need to "speak

196. Lighthouse Res., Inc. v. Inslee, No. 18-cv-5005, 2018 WL 6505372, at *1 (W.D. Wash. Dec. 11, 2018) (dismissing preemption claims); *Lighthouse Res., Inc.*, 429 F. Supp. 3d at 741–42 (dismissing foreign affairs preemption claims and concluding that an executive order by President Trump as well as general remarks by the President and others in his administration "favoring the development of the coal industry and the export of coal" did not create a conflict between a federal executive policy and the state's permit denials for the facility under the foreign affairs doctrine).

197. Lighthouse Res., Inc. v. Inslee, No. 18-cv-5005, 2019 WL 1572605, at *1 (W.D. Wash. Apr. 11, 2019).

198. Lighthouse Res., Inc. v. Inslee, 429 F. Supp. 3d 736 (W.D. Wash. 2019), *appeal docketed*, No. 19-35415 (9th Cir. May 10, 2019); *see also* Appellants' Joint Opening Brief, *supra* note 189, at 4.

199. State Defendants' Motion for Summary Judgment on Commerce Clause Issues at 14, *Lighthouse Res., Inc.*, 429 F. Supp. 3d 736 (No. 18-cv-5005), 2019 WL 1572605 ("In this case, Congress expressly and unambiguously authorized the state to deny certification under section 401 of the Clean Water Act. 33 U.S.C. § 1341(a). In section 401, Congress granted states a veto power over projects requiring federal permits. *Keating v. FERC*, 927 F.2d 616, 622 (D.C. Cir. 1991) ('Congress intended that the states would retain the power to block, for environmental reasons, local water projects that might otherwise win federal approval.').").

200. Plaintiffs Lighthouse Resources, et al., and Plaintiff Intervenor BNSF's Motion for Partial Summary Judgment on Foreign Commerce Clause Claims at 5–7, *Lighthouse Res., Inc.*, 429 F. Supp. 3d 736 (No. 18-5005), 2019 WL 1859206.

201. Complaint, *supra* note 194, at ¶¶ 196–98.

with one voice" under the Supreme Court's 1994 precedent in *Barclays Bank PLC v. Franchise Tax Board*.[202] In Lighthouse's reading, *Barclays Bank* stands for the proposition that executive branch policies cannot invalidate state laws that are "congressionally condoned"; but in the absence of congressional support, or where official congressional actions support executive branch policies, state laws contrary to executive branch policy are invalid.[203]

Finally, in 2020, the states of Montana and Wyoming sought leave to file an original action in the U.S. Supreme Court against Washington on the grounds that the state's denial of Section 401 Clean Water Act certification violated the dormant Commerce Clause and dormant Foreign Commerce Clause. They posited that the Supreme Court had Article III jurisdiction because the action was a dispute among states.[204] Montana and Wyoming argued that Washington's actions were discriminatory because one of its motivations for blocking the terminal was that the terminal would interfere with the export of the state's agricultural products, thus favoring its own export products over out-of-state export products, like coal.[205] In June 2020, Washington submitted a brief arguing that the Supreme Court should not take the case because, "this case is not a

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202. *See* Plaintiffs Lighthouse Resources et al. and Plaintiff Intervenor BNSF Railway Company's Reply in Support of Their Motion for Partial Summary Judgment on Foreign Commerce Claim at 8, *Lighthouse Res., Inc.*, 429 F. Supp. 3d 736 (No. 18-5005), 2019 WL 1859215 (referencing a 1970 congressional declaration that "it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in [] the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries"; a 1993 order by Congress to the Secretary of Commerce to prepare "a plan for expanding exports of coal"; and Congress's broadly delegated authority over foreign commerce and trade to the executive under the Trade Preferences Extension Act of 2015 to establish a "clear federal directive" of promoting coal exports); *see also* Barclays Bank PLC v. Franchise Tax Bd., 512 U.S. 298 (1994) (recognizing that a congressional desire for national uniformity can limit state taxing power under the dormant Foreign Commerce Clause, but finding that Congress had not expressed intent to bar the state action at issue in the case and thus the state tax was valid).

203. To support this argument, Lighthouse cites to two congressional actions. First, it cites a 1970 declaration that "it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in [industries including coal.]" Second, it refers to a 1993 congressional order to the Secretary of Commerce to prepare "a plan for expanding coal exports of coal mined in the United States." Lighthouse also references the Trade Preferences Extension Act of 2015. *See* Plaintiffs Lighthouse Resources et al. and Plaintiff-Intervenor BNSF Railway Company's Reply in Support of Their Motion for Partial Summary Judgment on Foreign Commerce Claim, *supra* note 202, at 8.

204. Motion for Leave to File Bill of Complaint, Bill of Complaint, and Brief in Support at 1, Montana v. Washington, 141 S. Ct. 229 (2020) (mem.) (No. 22O152) ("This case implicates an important purpose of the Commerce Clause: prohibiting coastal states from blocking landlocked states from accessing ports based on the coastal states' economic protectionism, political machinations, and extraterritorial environmental objectives."); *see also* Niina H. Farah, *Coal Export Battle Hinges on Commerce Clause*, E&E NEWS: ENERGYWIRE (Jan. 22, 2020), https://www.eenews.net/energywire/2020/01/22/stories/1062144851 [https://perma.cc/4LSU-RUKC] (reporting on lawsuit).

205. Motion for Leave to File Bill of Complaint, *supra* note 204, at 13–16, 18 (also suggesting that Washington favored in-state aerospace industry over the coal industry because aerospace "'brings thousands of jobs with those emissions; coal export doesn't'").

dispute between States. It is about the denial of one permit application . . . ."[206] As of the publication of this Article, the parties were awaiting a decision from the Supreme Court on whether it would take the case. In December 2020, Lighthouse filed for bankruptcy and sought court permission to sell the bulk terminal property to finance the reorganization, raising additional questions regarding the direction of the lawsuit.[207]

III.
THE LAW OF ENERGY EXPORTS

Part III explores in more detail the Supreme Court and federal appellate court Commerce Clause jurisprudence that will apply to the energy export cases summarized in Part II. It builds a framework for a law of energy exports that is both consistent with longstanding legal doctrine and addresses contemporary concerns over balancing state and local environmental protection and climate change goals with existing federal policies.

In doing so, this framework considers (1) the importance of defining the appropriate "market" for purposes of dormant Commerce Clause and dormant Foreign Commerce Clause analysis; (2) whether reducing GHG emissions from the energy sector is a local health and safety interest that can support a law's constitutionality; (3) when state and local laws impermissibly interfere with the physical free flow of commerce; and (4) whether presidential executive orders or other federal executive branch statements on energy policy are sufficient to implicate the dormant Foreign Commerce Clause, or whether such statements are irrelevant to judicial analysis.

First, this Section emphasizes that courts must begin their inquiry by analyzing the "relevant market." Controlling case law indicates that these markets should be defined fairly narrowly in terms of oil exports or coal exports, rather than broadly in terms of "commodity exports." This largely renders the

206. Washington's Brief in Opposition to Motion for Leave to File Complaint at 2, *Montana v. Washington*, 141 S. Ct. 229 (No. 220O152).

207. *See* Taylor Kuykendall, *Lighthouse Seeks Bankruptcy Court Approval for Fast Sale of Wash. Coal Terminal*, S&P GLOB. MKT. INTEL. (Dec. 10, 2020), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/lighthouse-seeks-bankruptcy-court-approval-for-fast-sale-of-wash-coal-terminal-61691174 [https://perma.cc/T87U-4DDX] (discussing bankruptcy and litigation over Millennium Bulk Terminal); *see also* Miranda Willson, *Lawsuit Highlights East-West Battle Over Coal*, E&E NEWS: ENERGYWIRE (Jan. 22, 2021), https://www.eenews.net/energywire/stories/1063723213?t=https%3A%2F%2Fwww.eenews.net%2Fstories%2F1063723213 [https://perma.cc/NXE2-CE7V] (discussing Lighthouse bankruptcy and reporting that Lighthouse did not receive any bids for the terminal); Camille Erickson, *Trump Administration Failed to File Opinion on Wyoming Coal Export Lawsuit*, CASPER STAR TRIB. (Mar. 12, 2021), https://trib.com/business/energy/trump-administration-failed-to-file-opinion-on-wyoming-coal-export-lawsuit/article_5c687cb0-2f52-5289-9036-02fa2ff7a21f.html [https://perma.cc/RJK8-8L27] (discussing Lighthouse bankruptcy as well as failure by Trump Administration Acting Solicitor General to file a brief expressing views of the United States in petition for review proceedings after Supreme Court formally requested it).

state and local governmental actions legitimate and nondiscriminatory. In other words, so long as the actions in question do not favor in-state coal or oil companies, they do not discriminate on their face, in their purpose, or in their effect.

Second, state and local governments may exercise their police power to limit or eliminate activities that will result in global climate change as well as more traditional local adverse environmental effects such as sea level rise, floods, hurricanes, air pollution, and the like. Thus, laws designed to limit GHG emissions should be considered a legitimate local health and safety justification for purposes of the *Pike* balancing analysis along with more traditional health and safety concerns that the courts have long recognized.

Third, with regard to the argument that state and local decisions to reject new oil and coal export terminals interfere with travel and shipping of goods in violation of the dormant Commerce Clause, it is not clear that the Supreme Court's precedent governing interstate movement of goods applies since the government actions at issue do not prohibit the interstate movement of goods. Thus, existing case law would not appear to automatically invalidate state or local laws that reject new export facilities for fossil fuels so long as the government action does not preference in-state commodities over out-of-state commodities competing in the same defined market.

Fourth, as for the dormant Foreign Commerce Clause, the Supreme Court case law is fairly clear that the evidence needed to show that the federal government must speak with "one voice" with regard to fossil fuel exports must come from Congress, not the executive branch. As a result, presidential executive orders, cabinet secretary statements, or agency rules promoting such exports should not impact courts' evaluation of this question. This Section explains each of these conclusions in detail in the context of the energy export cases, thus providing a framework for courts to analyze not only the pending energy export cases but others like them that are virtually certain to follow.[208]

A. Defining the Relevant Market and Discriminatory Effects

In the dormant Commerce Clause cases, including in the energy export cases, a critical issue for determining whether a facially neutral law is

208. *See, e.g.*, Levin Richmond Terminal Corp. v. City of Richmond, 482 F. Supp. 3d 944, 951 (N.D. Cal. 2020) (denying in part the City's motion to dismiss complaint on the grounds that plaintiffs fossil fuel companies and port operator alleged facts sufficient to assert legally cognizable dormant Commerce Clause, foreign Commerce Clause and federal preemption claims in connection with the city ordinance that prohibited handling coal and petroleum products on city property); *see also* Willson, supra note 207 (discussing lawsuit over City of Richmond ordinance and Utah's intervention in the lawsuit on the side of plaintiffs); Shawn Olson Hazboun & Hilary Boudet, *Companies Blocked from Using West Coast Ports to Export Fossil Fuels Keep Seeking Workarounds*, CONVERSATION (Nov. 28, 2018), https://theconversation.com/companies-blocked-from-using-west-coast-ports-to-export-fossil-fuels-keep-seeking-workarounds-106300 [https://perma.cc/D2Q8-3R8K] (listing export terminals that have been blocked by local opposition and describing ensuing legal fights).

discriminatory and subject to strict scrutiny is how the court defines the relevant market. For instance, the Oregon Court of Appeals in the City of Portland, Oregon, case stated that it had to properly "define the economic interests at stake" because any discrimination "assumes a comparison of substantially similar entities."[209] Relying on the U.S. Supreme Court's decisions in *General Motors Corporation v. Tracy*[210] and *Exxon Corporation v. Maryland*,[211] discussed below, the court disagreed with the challengers' characterization of the relevant market. Instead, the court found that the ordinance did not discriminate between "substantially similar out-of-state and in-state economic entities" and thus the law was valid.[212] The court concluded that the relevant market was limited to bulk exporters of fossil fuels and that there was no discrimination between out-of-state bulk exporters and in-state bulk exporters because there were no such companies in Oregon.[213]

Likewise, the district court in the South Portland, Maine, case cited *Tracy* and found that "[t]he fatal flaw" in PPLC's case was that "there can be no disparate burden on interstate or foreign competitors when there are no such competitors."[214] The court found that PPLC was "the only company seeking to load crude oil onto tank vessels" and that "there [were] no crude oil producers or refiners in South Portland or anywhere else in Maine."[215] Thus, "when there are no direct competitors to suffer a relative disadvantage from the supposedly protectionist state law, there is no risk of the kind of economic protectionism that the dormant Commerce Clause prohibits."[216]

1. Supreme Court Authority on the Relevant Market

There are several Supreme Court cases that address the "relevant market" issue, in both energy cases and non-energy cases, that are central to the resolution of the energy export cases. In general, the Court defines the market narrowly, considering only products or services that are actual replacements for each other in the market analysis. In the majority of the cases that discuss the "relevant market," the Supreme Court's narrow construction leads to the regulation being upheld. Only in rare cases is the Court unable to reconcile a narrow relevant market with a discriminatory law.

For instance, in *Tracy*, the Court upheld an Ohio law that imposed general sales-and-use taxes on all natural gas purchases except for sales by in-state

209. Columbia Pac. Bldg. Trades Council v. City of Portland, 412 P.3d 258, 263 (Or. Ct. App. 2018) (citing Gen. Motors Corp. v. Tracy, 519 U.S. 278, 298 (1997)).
210. 519 U.S. 278 (1997).
211. 437 U.S. 117 (1978).
212. *Columbia Pac. Bldg. Trade Council*, 412 P.3d at 264.
213. *Id.* at 262.
214. Portland Pipe Line Corp. v. City of South Portland, 332 F. Supp. 3d 264, 300 (D. Me. 2018).
215. *Id.*
216. *Id.*

natural gas utilities, known as local distribution companies (LDCs).[217] State law granted LDCs regulated monopoly status with regard to residential customers within the LDC's service territory, with prices set by the state public utilities commission. State law allowed industrial and commercial gas customers to purchase gas from independent gas producers and marketers but subjected those sales to the tax.

An industrial customer challenged the differential sales tax on dormant Commerce Clause grounds, alleging that it discriminated against out-of-state gas companies and in favor of in-state LDCs. The U.S. Supreme Court rejected the claim in 1997 on the grounds that the LDCs provided a different "product" to residential consumers consisting of gas bundled with state-regulated services and price protection that was different from the independent producers' and marketers' "unbundled" gas sold to industrial and commercial customers. The Court found that "any notion of discrimination under the Commerce Clause assumes a comparison of substantially similar entities" and that "the LDC's bundled product reflects the demand of a core market . . . neither susceptible to competition by the interstate sellers nor likely to be served except by the regulated natural monopolies that have historically supplied its needs."[218] Thus, with regard to that market "the dormant Commerce Clause has no job to do."[219]

Likewise, in *Exxon*, oil companies challenged a Maryland law prohibiting petroleum producers and refiners from operating their own retail gas stations in the state.[220] The oil companies argued the statute discriminated against interstate commerce because it served to protect in-state independent gas dealers from competition from out-of-state companies because all petroleum producers and refiners were located outside the state. The Supreme Court disagreed, finding in 1978 that the law did not discriminate between in-state and out-of-state independent gas dealers. It highlighted the fact there were several independent, interstate dealers of petroleum that owned or operated retail gas stations that were not affected by the law because they did not refine or produce gasoline. Simply because the burden of the law fell more heavily on out-of-state companies—because all gas producers and refiners were out-of-state companies—did not on its own establish discrimination against interstate commerce. Thus, the Court defined the relevant market as the marketing of petroleum products and found the law did not discriminate between in-state and out-of-state companies providing that service. By contrast, in dissent, Justice Blackmun defined the market more broadly to include all companies providing retail gasoline services and argued that prohibiting gasoline producers and refiners from selling gasoline at retail discriminated against interstate commerce because all of those companies affected by the law were from out of state.

217. Gen. Motors Corp. v. Tracy, 519 U.S. 278, 312 (1997).

218. *Id.* at 279.

219. *Id.*

220. Exxon Corp. v. Maryland, 437 U.S. 117, 123–24 (1978).

Finally, in *Minnesota v. Clover Leaf Creamery*,[221] milk sellers challenged a Minnesota law, on dormant Commerce Clause grounds, that banned the sale of milk in plastic, nonreturnable, nonrefillable containers, but allowed the sale of milk in paperboard or other non-plastic, nonreturnable, nonrefillable containers. The Court rejected the challenge in 1980 in part because it defined the relevant market to be milk retailers rather than milk container producers. As a result, the Court found that the law regulated "evenhandedly" by imposing requirements on all milk retailers "without regard to whether the milk, the containers, or the sellers are from outside the state."[222] Defining the market in this way rendered irrelevant the fact that the plastic resin used to make nonreturnable plastic milk jugs was produced exclusively outside the state while the pulpwood used for paperboard containers was a major Minnesota product.

The Supreme Court reached a different conclusion in 1977, in *Hunt v. Washington State Apple Advertising Commission*,[223] where it found that North Carolina interfered with the "competitive advantage" Washington had established with regard to apple grades in banning the display of state grades on apple packaging in the state. However, in that case, the Court found that the law had the direct effect of promoting the North Carolina apple industry at the expense of the Washington apple industry. Since businesses in both states participated in the same market, sales of apples, the Court found the law was "the very sort of protection against competing out-of-state products that the Commerce Clause was designed to prohibit."[224]

2. Defining the Relevant Market in the Lower Federal Courts

The lower federal courts have also addressed the issue of how to define the relevant market in ways that are relevant to the energy export cases. In *Norfolk Southern Corporation v. Oberly*,[225] companies seeking to operate a coal transfer service (called "coal lightering") off the coast of Delaware challenged a state law that banned bulk product transfer services in the Delaware coastal zone. The companies alleged that the statute was protectionist and violated the dormant Commerce Clause because it favored in-state uses of the coastal zone, like fishing and tourism, over competing uses of the coastal zone, like coal lightering, which did not contribute to the state economy because there were no companies in the state in that line of business. The U.S. Court of Appeals for the Third Circuit rejected that argument, holding in 1987 that the Supreme Court "has never adopted such a broad gauged view of a discriminatory effect" and that laws that are evenhanded on their face are only invalid "where the state law advantages in-state business in relation to out-of-state business in the same

221. 449 U.S. 456 (1981).
222. *Id.* at 471–72.
223. 432 U.S. 333 (1977).
224. *Id.* at 352.
225. 822 F.2d 388 (3d Cir. 1987).

market."[226] Thus, according to the Third Circuit, states may use their police powers to make choices between competing land uses and alternative environmental protection policies in ways that benefit the economic interests of the state without implicating the Commerce Clause so long as the state's choices do not discriminate between in-state and out-of-state market participants.[227]

The U.S. District Court for the Central District of California reached a similar conclusion in *North American Meat Institute v. Becerra*,[228] in the context of a California ban on selling veal or pork in the state where the animal was confined in a "cruel manner" as defined by state law. In that case, out-of-state meat sellers argued that the law discriminated against interstate commerce by effectively excluding them from California's market. The court upheld the law on the grounds that it applied equally to California meat producers and out-of-state meat producers and thus was not discriminatory in effect. The court rejected the idea that the law was similar to the one the Supreme Court struck down in *Hunt v. Washington State Advertising Commission*, where the state had forced the out-of-state apple industry to give up "the competitive and economic advantages it has earned for itself through its expensive inspection and grading system."[229] Instead, the court cited a Ninth Circuit case upholding a California ban on sales of foie gras,[230] along with a Sixth Circuit case involving county requirements for waste disposal facilities, for the proposition that an "equal-opportunity" burden on all targeted goods is not invalid under the dormant Commerce Clause.[231]

3. *Defining the Relevant Market for the Energy Export Cases*

These Supreme Court and lower court cases show that how the court defines the "market" that the state or local government regulates is critical to the outcome. For instance, in *Clover Leaf Creamery*, if the Court had defined the market as sellers of milk containers rather than sellers of milk, there would have been strong evidence of discriminatory effect since Minnesota companies dominated the paperboard container market and out-of-state companies dominated the plastic container market. The same is true for the Court's

226. *Id.* at 402 (citations omitted); *see also* Regan v. Hammond, 934 F.3d 700, 704 (7th Cir. 2019) (upholding local ordinance that required residential property owners to hire a licensed contractor for repairs but exempted homeowners making repairs to residences they occupied, and stating, "laws that draw distinctions between entities that are not competitors do not 'discriminate' for purposes of the dormant commerce clause" (citations omitted)).

227. *Norfolk Southern Corp*., 822 F.2d at 407.

228. 420 F. Supp. 3d 1014 (C.D. Cal. 2019).

229. *N. Am. Meat Inst*., 420 F. Supp. 3d at 1026–27 (quoting Hunt v. Wash. St. Apple Advert. Comm'n, 432 U.S. 333, 351, 352 (1977)).

230. Ass'n des Eleveurs de Canards et d'Oies du Quebec v. Harris, 729 F.3d 937, 941–42 (9th Cir. 2013).

231. *N. Am Meat Inst.*, 420 F. Supp. 3d at 1027–28 (quoting Maharg, Inc. v. Van Wert Solid Waste Mgmt. Dist., 249 F.3d 544, 553 (6th Cir. 2001)).

articulation of the relevant markets in *Exxon* (independent gas stations) and *Tracy* (retail natural gas sales), which were narrow in scope.

Moreover, these cases support the idea that a regional variation in energy resources—with fossil fuel-producing states wishing to profit from those resources and states without such resources wishing to prohibit them for environmental or other reasons—does not, on its own, constitute discrimination that is per se invalid under the dormant Commerce Clause. This is increasingly important as a growing number of jurisdictions enact aggressive clean energy standards that serve to favor renewable energy resources and disfavor fossil fuel resources.

As an example, in *Energy and Environment Institute v. Epel*,[232] the U.S. District Court for the District of Colorado found that Colorado's renewable energy standard requiring in-state utilities to source a certain percentage of electricity sales from renewable energy sources did not violate the dormant Commerce Clause simply because the law harmed coal interests in neighboring states, like Wyoming. The court held that the fact that the law "may negatively impact the profits of out-of-state generators whose electricity cannot be used to fulfill the Quota does not make the Renewables Quota invalid."[233] Citing the Supreme Court's decision in *Exxon*, as well as other Supreme Court precedent, the court noted that "[t]he dormant Commerce Clause neither protects the profits of any particular business nor the right to do business in any particular manner."[234]

These cases tend to bolster the conclusion that laws restricting fossil fuel export terminals do not discriminate simply because companies within the regulating jurisdiction do not profit from the production of fossil fuels like those in other states. Instead, they provide strong support for the idea that activity bans and other regulatory policies that may reduce the competitive advantage of industries in other states are valid so long as they regulate evenhandedly and are not enacted with a discriminatory purpose or intent. This standard preserves the balance between states' interests, so that no state can commandeer another to promote its own interests.

This precedent will weigh heavily in the courts' review of the denial of permits for fossil fuel export facilities in the South Portland, Portland, and Washington cases. If the courts define the relevant market broadly as "export facilities," or "industrial facilities," it is more likely they will find the laws have a discriminatory effect on out-of-state companies because, in each case, the energy resources proposed for export come from out of state. This is precisely the argument the states of Wyoming and Montana made in their petition to the Supreme Court to invalidate the Washington permit denial for the Millennium

232. Energy & Env't Legal Inst. v. Epel, 43 F. Supp. 3d 1171, 1180 (D. Colo. 2014), *aff'd on other grounds*, 793 F.3d 1169 (10th Cir. 2015).

233. *Energy & Env't Legal Inst.*, 43 F. Supp. 3d at 1180.

234. *Id.* (citations omitted).

Bulk Terminal.[235] Montana and Wyoming argued that the relevant market is akin to "commodity exports," and thus Washington is hoarding its valuable port real estate for its own agricultural commodities and discriminating against Montana and Wyoming's fossil fuel commodities.[236]

However, there is no Supreme Court precedent to support such a broad approach to defining the relevant market. As a result, courts should view the efforts by litigants to define the relevant market in this way with significant skepticism.

Moreover, these attempts to use the dormant Commerce Clause to invalidate state and local actions to protect their coastal resources run directly contrary to the very purpose of dormant Commerce Clause. This is because invalidating these state and local actions would allow Wyoming, Montana, and other landlocked states to use the dormant Commerce Clause as a sword to commandeer coastal states' resources for the benefit of their own economic interests. Wyoming and Montana contend that the dormant Commerce Clause requires Washington to not simply treat similar commodities from other states on an equal footing with their own, for instance, apples from other states with apples from Washington. They argue instead that Washington must set aside its limited and valuable coastal lands and waters to build physical infrastructure to facilitate the exports of out-of-state commodities, in this case coal from Wyoming and Montana, even if such infrastructure interferes with Washington's own economic and land use policy choices. There is nothing in dormant Commerce Clause doctrine that would require a state to boost the economic interests of other states over its own; instead it must merely refrain from discriminating against the interests of other states when regulating commodities that exist in both states. While Congress can certainly enact a law to create a federal permitting process to facilitate certain types of import or export infrastructure, as it did for LNG import and export facilities in the Energy Policy Act of 2005, the dormant Commerce Clause cannot accomplish the same result.

B. Local Environmental, Health, and Safety Purposes and the Role of Climate Policy

Regardless of whether the court applies strict scrutiny or the *Pike* balancing test, the purported local benefits of the law are relevant. If a statute discriminates against interstate commerce on its face, in its purpose, or in its effect, it is subject to strict scrutiny and is per se invalid unless the state establishes a "legitimate local purpose" that cannot be met by nondiscriminatory means.[237] If, however, the statute "regulates even-handedly," the court applies the *Pike* balancing test

235. *See supra* notes 204–205 and accompanying text.
236. *Id.*
237. Maine v. Taylor, 477 U.S. 131, 138 (1986).

and will only invalidate the law if the incidental "effects on interstate commerce" are clearly excessive to the local benefits of the law.[238]

For decades, the Supreme Court has recognized a wide range of health, safety, and environmental purposes as legitimate "local benefits" that can justify a nondiscriminatory state or local law that nevertheless burdens interstate commerce. This Section discusses cases recognizing the local benefits of traditional environmental protection measures as well as the question of whether recent state and local laws designed to limit GHG emissions and climate change also provide "local benefits" for purposes of dormant Commerce Clause analysis.

1. Environmental Protection as a Legitimate Local Benefit

Courts have routinely held that environmental protection is a legitimate local benefit. In 1986, in *Maine v. Taylor*, the Supreme Court upheld a Maine statute that prohibited the importation of baitfish into the state despite the fact that it was facially discriminatory because the state lacked nondiscriminatory alternatives.[239] The state justified the ban on the grounds that live baitfish from out of state posed a significant threat to Maine's "unique and fragile fisheries" through parasites prevalent in out-of-state baitfish but not common to wild fish in Maine and because of the potential to disturb the state's aquatic ecology.[240] On this record, the Court upheld the law despite the fact that it was discriminatory on its face and subject to strict scrutiny because Maine lacked nondiscriminatory alternatives available to protect the state's environment. The Court quoted the district court's decision in the case, stating that "the constitutional principles underlying the commerce clause cannot be read as requiring the State of Maine to sit idly by and wait until potentially irreversible environmental damage has occurred or until the scientific community agrees on what disease organisms are or are not dangerous before it acts to avoid such consequences."[241]

By contrast, in *Chemical Waste Management v. Hunt*, the Supreme Court invalidated an Alabama fee on out-of-state hazardous waste disposed in state landfills that was higher than the fee imposed on in-state hazardous waste for being discriminatory.[242] The Court found that the law was discriminatory but made clear that a complete ban or a cap on all hazardous waste to protect the state's environment that did not discriminate on the basis of origin would be upheld.[243] The Court reasoned that, unlike in *Maine v. Taylor*, Alabama provided no evidence that out-of-state waste was any more dangerous than waste

238. Pike v. Bruce Church, Inc., 397 U.S. 137, 142 (1970).
239. *Taylor*, 477 U.S. at 151–52.
240. *Id.* at 140–41.
241. *Id.* at 148.
242. Chem. Waste Mgmt. v. Hunt, 504 U.S. 334, 336–37 (1992).
243. *Id.* at 345-46.

generated within the state, and thus the differential fee could not survive strict scrutiny.[244] Nevertheless, the Court was clear that protecting the state's environment through hazardous waste regulation was a legitimate local purpose and could be advanced through a nondiscriminatory law even if it still adversely affected interstate commerce.[245]

Finally, in *Clover Leaf Creamery*, discussed above, the Court found first that the law banning milk sales in plastic, nonreturnable, non-recyclable containers was nondiscriminatory.[246] Then, in applying the *Pike* balancing test, it found the burden on interstate commerce was not excessive "in light of the substantial state interest in promoting conservation of energy and other natural resources and easing solid waste disposal problems."[247] In reaching that conclusion, the Court referred to an earlier section of the opinion, where it had upheld the law in the face of a claim that it violated the Equal Protection Clause of the Fourteenth Amendment. In that analysis, the Court went into significant detail regarding the purposes of the law that are highly relevant to the energy export cases discussed in Part II as well as future state and local efforts to transition to renewable energy and limit investment in long-lived fossil fuel infrastructure.[248]

To justify the law, Minnesota argued that eliminating "popular" plastic milk jugs would "encourage the use of environmentally superior containers."[249] The Court agreed that "[t]here is no serious doubt that the plastic containers consume energy resources and require solid waste disposal, nor that refillable bottles and plastic pouches are environmentally superior."[250] The State had argued that the ban on plastic nonreturnable bottles will "buy time during which environmentally preferable alternatives may be further developed and promoted."[251] On that point, the Court quoted from the state senate debate over the law, in which one senator argued that "[t]his bill is designed to prevent the beginning of another system of non-returnables that is going to be very difficult [to stop] once it begins" because of "all the investment and all the vested interest" in that system.[252]

In response to the argument that it was unlikely that the state would actually take steps to develop more sustainable milk packaging beyond the paperboard cartons favored under the current law, the Court noted that the state "need not 'strike at all evils at the same time or in the same way.'"[253] With regard to the

244. *Id.* at 348.
245. *Id.*
246. Minnesota v. Clover Leaf Creamery, 449 U.S. 456, 471 (1981).
247. *Id.* at 473.
248. *Id.*
249. *Id.* at 465.
250. *Id.*
251. *Id.*
252. *Id.*
253. *Id.* at 466 (citations omitted).

concerns over path dependency if plastic milk bottles were allowed, the Court cited testimony from a state representative stating that the law was designed to discourage Minnesota's dairies from investing "large amounts of capital in plastic container production" that would put the state on a path away from sustainable milk containers.[254] The Court also supported the state's attempt to use the law to conserve energy, citing to legislative statements that plastic milk jugs are "made from [non-renewables] whereas paperboard milk cartons are primarily composed of pulpwood, which is a renewable energy resource."[255] Although the Minnesota Supreme Court had found that the law was "not a sensible means of conserving energy," the Supreme Court reversed that decision, upheld the law, and concluded that "it is up to legislatures, not courts, to decide on the wisdom and utility of legislation."[256]

The *Clover Leaf Creamery* case is notable because it shows significant deference by the Court, as early as 1981, to states attempting to conserve energy, promote renewable resources, and avoid path dependency associated with investing in fossil fuel-based products.[257] The Court found that whether or not the law would actually accomplish these goals was far less relevant than whether the law regulated evenhandedly and attempted to promote a legitimate interest in protecting the state's environment.[258] These same themes are present in both the energy export cases and other state and local regulation of the use of fossil fuels facing dormant Commerce Clause claims. Under *Clover Leaf Creamery*, legislation may be entitled to deference regardless of whether or not state and local environmental protection actions will accomplish all of their intended goals.[259]

2. *Recognizing Climate Policy as a Legitimate Local Benefit*

The Supreme Court has not yet addressed whether state and local laws designed to reduce global GHG emissions serve a legitimate "local" purpose in the context of the dormant Commerce Clause. However, at least one federal appellate court has addressed the issue and concluded that climate policy was indeed a legitimate local purpose because of the local adverse effects associated with global climate change. In 2019, in *Rocky Mountain Farmers Union v. Corey*, the U.S. Court of Appeals for the Ninth Circuit upheld (for the second

254. *Id.* at 467.
255. *Id.* at 468.
256. *Id.* at 469 (quotations omitted).
257. *See id.* at 459–60 (stating that the law's proponents "stressed the need to stop introduction of the plastic nonreturnable container before it became entrenched in the market"). Notably, the Supreme Court reaffirmed the legitimate local interest associated with recycling and environmental protection in 2007, in upholding a county flow control and recycling program, stating that the ordinances in question "increase recycling in at least two ways, conferring significant health and environmental benefits upon the citizens of the Counties." United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 346–47 (2007).
258. *Clover Leaf Creamery*, 449 U.S. at 459–60.
259. *Id.*

time) California's low-carbon fuel standard law designed to reduce GHG emissions in vehicle fuels by evaluating the life cycle GHG emissions associated with producing those fuels, particularly ethanol.[260]

After finding that the law did not regulate extraterritorially, the court turned to the law's purported local benefits, both in the analysis as to whether the law discriminated against interstate commerce and also as to whether it satisfied the *Pike* balancing test. The court stated that "California has attempted to address a vitally important environmental issue with vast potential consequences"; that the Supreme Court recognized in *Massachusetts v. EPA* that states have a "legitimate interest in combatting the adverse effects of climate change on their residents"; that it is "clear beyond dispute that potential climate change poses one of the most difficult challenges facing all civilizations worldwide for the twenty-first century"; and that, through its law, "California has offered a potential solution to the perverse incentives that would otherwise undermine any attempt to assess and regulate the carbon impact of different fuels."[261] The court stated that California was not attempting to regulate activities in other states but instead was legislating "from a concern for the effects of the production and use of these fuels on California's own air quality, snowpack, and coastline."[262]

In response to arguments that the California standard discriminated against states that produced ethanol using coal-fired electricity, the court responded that "the Constitution does not require California to shut its eyes to the fact that some ethanol is produced with coal and other ethanol is produced with natural gas because these kinds of energy production are not evenly dispersed across the country or because other states have not chosen to regulate the production of greenhouse gases."[263] Thus, the court concluded not only that reducing GHG emissions from fuels used in the state was a legitimate local purpose, but also that the fact some states were more heavily burdened by the law because they relied on fossil fuel resources to produce ethanol did not render the law discriminatory or otherwise invalid under the Commerce Clause.[264]

3. *State and Local Government Power to Restrict Energy Exports to Protect the Local Environment and Reduce GHG Emissions*

State and local defendants in the energy export cases have focused primarily on local environmental and land use harms they wish to avoid in

260. Rocky Mountain Farmers Union v. Corey, 913 F.3d 940, 958 (9th Cir. 2019).

261. *Id.* at 955; *see also* Am. Fuel & Petrochemical Mfrs. v. O'Keefe, 903 F.3d 903, 913 (9th Cir. 2018) (upholding Oregon low-carbon fuels law modeled after California law and stating that "[i]t is well settled that the states have a legitimate interest in combating the adverse effects of climate change on their residents" (citations omitted)).

262. *Rocky Mountain Farmers Union*, 913 F.3d at 953.

263. *Id.* at 955–56.

264. The court also noted that "[i]f the Midwest were to undergo a green revolution in its energy production, [the law] would act as a competitive drag on California energy producers." *Id.* at 956.

rejecting the coal and oil export facilities at issue.[265] The Supreme Court and lower court precedent strongly supports the ability of state and local governments to make these decisions with regard to climate change as well. This is particularly true because unlike the other cases discussed in this Section, where the governmental entity was primarily regulating markets, the defendants in the energy export cases are making land use decisions to avoid physical, adverse impacts to state lands, state waters, and nearby residential and commercial properties. State and local police power is at its strongest in these types of zoning and land use decisions designed to protect human health and the environment.[266]

However, the defendants in the energy export cases have focused less on the reduction of GHG emissions as a local interest in the litigation to date.[267] This is not surprising, as the case law in this area is more limited and there is no direct Supreme Court authority on the topic. However, climate science has increasingly connected global GHG emissions with specific, localized adverse impacts to human health and the environment, such as flooding, fires, hurricanes, and sea level rise.[268] As the Ninth Circuit recognized in *Rocky Mountain Farmers Union*, climate change is a global problem with local impacts.[269] Thus, state and local policy to address climate change would appear to fit fairly well into the *Pike* analysis and support state and local regulation.

C. State and Local Laws that Limit the Flow of Goods in Interstate Commerce

Another potential dormant Commerce Clause argument against state and local restrictions on fossil fuel export facilities is that such laws restrict the physical flow of goods in interstate commerce even if they do not preference in-state economic interests over out-of-state economic interests. However, the Supreme Court precedent in this area is quite deferential to state policies designed to protect legitimate local health and safety interests under the *Pike* balancing test and generally only invalidates such policies when it finds uniformity among the states is required or when the state has failed to establish any legitimate health or safety goal.

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265. *See supra* Part III.B.

266. *See* Pike v. Bruce Church, 397 U.S. 137, 143 (1970) (noting the Court has been most reluctant to invalidate under the Commerce Clause "state legislation in the field of safety where the propriety of local regulation has long been recognized" (citations omitted)); Huron Portland Cement Co. v. Detroit, 362 U.S. 440, 442 (1960) ("The ordinance was enacted for the manifest purpose of promoting the health and welfare of the city's inhabitants. Legislation designed to free from pollution the very air that people breathe clearly falls within the exercise of even the most traditional concept of what is compendiously known as the police power.").

267. *See supra* Part II.B.

268. *See* 1 CLIMATE SCIENCE SPECIAL REPORT: FOURTH NATIONAL CLIMATE ASSESSMENT, ch. 3 (Donald J. Wuebbles, David W. Fahey, Kathy A. Hibbard, David J. Dokken, Brooke C. Stewart & Thomas K. Maycock eds., 2017), https://science2017.globalchange.gov/chapter/3/ [https://perma.cc/4AGY-E7M7] (chapter on detection and attribution of climate change).

269. *See supra* notes 260–263 and accompanying text.

Moreover, this Supreme Court precedent focuses almost exclusively on state laws that hinder the movement of goods from state to state rather than those that may burden the export of such goods overseas. As a result, courts should reject efforts to use the dormant Commerce Clause cases described in this Section to invalidate state and local laws governing coal and oil export facilities. Instead, a judicial analysis under the dormant Foreign Commerce Clause, as discussed in Part III.D, would be more appropriate.

Some of the earliest Supreme Court cases on the free flow of goods in interstate commerce involved state regulation of trucks. For instance, in *Bibb v. Navajo Freight Lines*,[270] the Supreme Court in 1959 struck down an Illinois statute that required a certain type of mudguard on trucks and trailers. The Court began the opinion by emphasizing that the power of a state to regulate its highways is "broad and pervasive" and is "akin to quarantine measures . . . and like local regulations of rivers, harbors, piers, and docks with respect to which the state has exceptional scope for the exercise of its regulatory power" in the absence of Congressional action to the contrary.[271] Despite this deference to state regulation in this area, the Court found the law violated the dormant Commerce Clause because of evidence showing that the trucks complying with the mudflap requirements of Illinois could not meet the mudflap requirements in other states and vice versa.[272] The practical effect of these conflicting regulations would make it necessary for shippers to shift their cargo to different trucks at state lines.[273] Just as important, the Court found there was no added safety benefit to the Illinois mudflap requirement as compared with those that complied with other states' requirements.[274] Focusing on the state's inability to establish a safety rationale to justify departing from the requirements in other states, the Court stated that "[t]his is one of those cases—few in number—where local safety measures that are nondiscriminatory place an unconstitutional burden on interstate commerce."[275]

Likewise, in 1981, in *Kassel v. Consolidated Freightways Corporation*, the Court invalidated an Iowa regulation prohibiting the use sixty-five-foot double trailer trucks on interstate highways in the state, with some narrow exceptions.[276] A trucking company challenged the law as an unconstitutional burden on interstate commerce, and Justice Powell, writing for a plurality of the Court, invalidated the law.[277] The Court began by confirming that "regulations that

270. 359 U.S. 520 (1959).
271. *Id.* at 523–524.
272. *Id.* at 523.
273. *Id.* at 526.
274. *Id.* at 525 ("[T]he District Court in its opinion stated that it was 'conclusively shown that the contour mud flap possesses no advantages over the conventional or straight mud flap previously required in Illinois and presently required in most of the states.'").
275. *Id.* at 529.
276. Kassel v. Consol. Freightways Corp., 450 U.S. 662, 665–66 (1981).
277. *Id.* at 675–78.

touch upon safety—especially highway safety—are those that 'the Court has been most reluctant to invalidate.'"[278]

However, the Court also relied on its decision in a 1978 case with almost identical facts, *Raymond Motor Transportation v. Rice*, holding that if the state could not establish more than a marginal safety benefit in support of a regulation that interfered substantially with interstate commerce, the Court could invalidate the law under the *Pike* balancing test.[279] In reviewing the record, the Court found that the Iowa law was "out of step" with all other neighboring states and thus "substantially burdens the interstate flow of goods by truck."[280] Moreover, the Court found there was no evidence that sixty-five-foot double trailers were any more dangerous on state highways than the fifty-five-foot single trailers allowed under the law. Finding no legitimate safety reason to support the law, the Court turned to the burden on interstate commerce. It found that the need to reroute sixty-five-foot double trucks around Iowa, or detach them, cost the industry about $12.6 million each year, required more highways miles to be driven each year, and might even increase the number of highway accidents.[281]

The Court in *Kassel* also found that some of the law's exemptions supported the argument that the law was not actually a safety measure at all, but was intended instead to discourage interstate truck traffic, resulting in the Court giving less deference to the state's legislative judgment.[282] In a concurring opinion, Justices Brennan and Marshall agreed with the result, but on the grounds that the law in fact discriminated against interstate commerce because it was an intentional effort to reduce the amount of interstate truck traffic on the state's highways rather than for any safety reason at all.[283]

These cases stand for the proposition that nondiscriminatory laws that regulate the flow of interstate commerce are valid under the dormant Commerce Clause so long as they are justified by a local health or safety rationale. Indeed, in each case in which the Supreme Court invalidated a state trucking law, it stressed that the result was an anomaly based on the failure of the state to put forward any legitimate safety rationale to justify creating a patchwork of regulations that would interfere with the free flow of commerce. In general, the Court emphasized, state highway safety laws are valid under the dormant Commerce Clause if they have a legitimate health and safety purpose.

278. *Id.* at 670 (quoting Raymond Motor Transp. v. Rice, 434 U.S. 429, 443 (1978)).

279. *Id.* at 670–71 (citing *Raymond*, 434 U.S. at 443).

280. *Id.* at 671.

281. *Id.* at 674. Justice Powell also recognized, earlier in the opinion, that Iowa sits at the center of major trucking routes "on Interstate 80, the principal east-west route linking New York, Chicago, and west coast, and on Interstate 35, a major north-south route." *Id.* at 665.

282. *Id.* at 675–76.

283. *Id.* at 681–85 (Brennan, J. concurring); *see also* Am. Trucking Ass'ns v. Larson, 683 F.2d 787, 791–95, 801 (3d Cir. 1982) (discussing the decisions in *Bibb*, *Raymond*, and *Kassel* in evaluating a Pennsylvania motor vehicle inspection law and finding that the law did not violate the dormant Commerce Clause because there was evidence to support the law as a highway safety measure).

The Supreme Court has also addressed the issue of state interference with the free flow of goods across states in the energy context. In *Exxon Corporation v. Maryland*, the Court rejected the argument that North Carolina could not regulate the retail marketing of gas "because the economic market for petroleum products is nationwide."[284] The Court noted that "this Court has only rarely held that the Commerce Clause itself pre-empts an entire field from state regulation, and then only when a lack of national uniformity would impede the flow of interstate goods."[285] Instead, "[i]n the absence of a relevant congressional declaration of policy, or a showing of specific discrimination against, or burdening of, interstate commerce, we cannot conclude that the States are without power to regulate in this area."[286]

More recent federal appellate court decisions show the extent to which states may regulate the movement of commerce absent a contrary federal statute so long as the regulations do not discriminate against out-of-state economic interests. In *Norfolk Southern Corporation v. Oberly*, the Third Circuit recognized that there is a Commerce Clause interest in federal uniformity "in cases addressing state regulation of the means of interstate transportation."[287] The court cited *Bibb* for the proposition that, in these cases, the point is to avoid "contradictory and inconsistent state regulation of vehicles engaged in interstate transportation."[288] Nevertheless, the court upheld Delaware's ban on coal transfer facilities in the coastal zone.[289]

The court stated that even if the state law served to completely block the flow of coal at the Delaware border, the law would still be valid because the Supreme Court had only struck down state laws that "imposed an import or export embargo which precluded interstate commerce in a specified good while leaving unaffected the state trade in that good."[290] Thus, "[i]t is the discrimination against interstate versus intrastate movements of goods, rather than the 'blockage' of the interstate flow *per se*, that triggers heightened scrutiny in such cases."[291] The court appeared to draw a distinction between laws that create inconsistent regulations governing the transportation of articles of commerce through the state and laws that prohibit the article of commerce completely. The Ninth Circuit reached a similar conclusion in *Pacific Northwest Venison Producers v. Smitch*, where it recognized the interest in avoiding "the disruption of travel and shipping due to a lack of uniformity in state laws" but upheld the state's ban on exotic wildlife nevertheless.[292] Thus, this case law

284. Exxon Corp. v. Maryland, 437 U.S. 117, 128 (1978).
285. *Id.*
286. *Id.* at 128–29.
287. Norfolk S. Corp. v. Oberly, 822 F.2d 388, 399 (3d Cir. 1987).
288. *Id.* at 399.
289. *Id.* at 407.
290. *Id.* at 401 (citing Philadelphia v. New Jersey, 437 U.S. 617, 624 (1978)).
291. *Id.*
292. Pac. Nw. Venison Producers v. Smitch, 20 F.3d 1008, 1015 (9th Cir. 1994).

supports a state or local government refusal to grant permission to build a local facility needed to export a particular product, such as coal or oil, in two circumstances. First, the refusal must not prohibit the movement of goods between the states. Second, the refusal must not discriminate between in-state companies and out-of-state companies exporting the product.

In this way, such government actions are similar to the Delaware ban on coal transfer facilities that the Third Circuit upheld and different from the truck regulation cases, *Bibb, Kassel,* and *Raymond*. Moreover, the Supreme Court's decisions in the truck cases focus primarily on laws that would have impeded the free flow of goods from one state to another state rather than laws that prohibit a good from leaving a state for export to another country. With regard to the latter issue, case law on the dormant Foreign Commerce Clause, discussed below, may be more applicable.

D. Reassessing the Role of the Dormant Foreign Commerce Clause: When Must the Nation Speak with "One Voice"?

While the interstate trucking cases may not be highly applicable to laws restricting U.S. exports, cases involving the dormant Foreign Commerce Clause apply directly to state and local laws that may interfere with the ability of companies to ship their goods overseas from coastal states. In the energy export cases discussed in Part II, there is no federal permitting process that governs oil export terminals or coal export terminals like there is for LNG import and export terminals.[293] Thus, the question is whether, despite the lack of a federal statute that requires uniformity among the states, there is sufficient evidence of the need for the nation to "speak with one voice when regulating commercial relationships with foreign governments."[294] In such cases, the party challenging the law must establish that "national uniformity is important" in the area of regulation to invalidate the state or local law.[295]

The Supreme Court has decided few cases involving the dormant Foreign Commerce Clause but has used it to invalidate state laws in areas where federal uniformity is "essential" and the nation must "speak with one voice."[296] In *South-Central Timber Development v. Wunnicke*,[297] the Court struck down an Alaska law that required that all timber taken from state lands be processed within the

293. *See supra* note 14 (discussing federal authority over LNG import and export facilities that preempts state permitting requirements).

294. South-Central Timber Dev. V. Wunnicke, 467 U.S. 82, 100 (1984) (citing Michelin Tire Corp. v. Wages, 423 U.S. 276, 285 (1976) and Japan Line, Ltd. v. County. of Los Angeles, 441 U.S. 434 (1979)).

295. *See, e.g.*, Pac. Nw. Venison Producers v. Smitch, 20 F.3d 1008, 1014 (9th Cir. 1994) (holding state ban on possessing or importing "deleterious exotic wildlife" was not an area where national uniformity was important, and noting that most state and Canadian provinces ban some wildlife species and that the species banned differ from state to state).

296. Barclays Bank PLC v. Franchise Tax Bd., 512 U.S. 298, 298–300 (1994).

297. South-Central Timber Dev. v. Wunnicke, 467 U.S. 82, 100 (1984).

state prior to export outside the state. An Alaska corporation, which sold timber exclusively to Japan, challenged the processing requirements on dormant Foreign Commerce Clause grounds. The Court found that "[i]t is a well-accepted rule that state restrictions burdening foreign commerce are subjected to a more rigorous and searching scrutiny" because of the nation's need to "speak with one voice" in matters of foreign trade.[298]

In *Barclays Bank PLC v. Franchise Tax Board*,[299] the Court discussed more specifically the evidence required to show a national need for uniformity in a particular area of regulation that warrants displacing state law. In that case, a foreign corporate taxpayer challenged California's worldwide combined reporting requirement for calculating corporate franchise taxes. The Supreme Court held that the state's calculation method did not violate the dormant Foreign Commerce Clause. With regard to the "one voice" argument, it found no "specific indications of congressional intent" barring the state's action and noted that Congress had the opportunity on numerous occasions to enact legislation but had failed to do so.[300] The Court also rejected the argument that a series of executive branch statements and federal government amicus briefs constituted a "clear federal directive" limiting the state's ability to use the reporting requirement in question.[301] The Court stated that the Constitution grants Congress, not the President, the "power to 'regulate Commerce with foreign Nations'" and thus legislation, press releases, letters, or amicus briefs from the executive branch on the topic are "not evidence that the practice interfered with the Nation's ability to speak with one voice."[302]

How should courts apply this precedent in the energy export cases? Although *Barclays Bank* is a tax case and thus subject to a tax-specific jurisprudence in the dormant Commerce Clause realm, the Court's discussion regarding the evidence required to show the need for federal uniformity is applicable in non-tax cases. For its part, *South-Central Timber Development* involved a law that overtly favored in-state interests over out-of-state interests in the same market and thus is factually distinct from the energy export cases discussed in Part II, which do not contain the same express preference for in-state industries over out-of-state industries. As a result, these cases help establish the evidentiary burden plaintiffs must meet when challenging state or local laws involving foreign commerce, though they are factually distinct from the energy export cases.

The lower federal courts, however, have addressed dormant Foreign Commerce Clause claims more factually similar to the energy export cases. In *Norfolk Southern Corporation v. Oberly*, the Third Circuit rejected the idea that

298. *Id.* (citations omitted).
299. 512 U.S. 298.
300. *Id.* at 321.
301. *Id.* at 328.
302. *Id.* at 328–30 (citation omitted).

"any state action adversely affecting foreign commerce burdens such commerce sufficiently to invoke heightened scrutiny."[303] According to the court, all state regulation of goods destined for foreign markets affects the cost of the goods and, consequently, the quantity sold in foreign markets. "If such effects were sufficient to trigger Commerce Clause review under the heightened scrutiny standard, however, the Commerce Clause would become a far more restrictive limit on state legislative power than it has traditionally been."[304] The court thus refused to invalidate the Delaware coal transfer facility ban on that ground despite its potential impact on overseas coal exports.[305]

Likewise, in *Pacific Merchant Shipping Association v. Goldstene*,[306] a shipping corporation challenged California regulations seeking to address significant air pollution in coastal areas. The regulations required ocean-going vessels to use cleaner marine fuels in their engines when operating within twenty-four nautical miles off the California coastline. After finding that neither the federal Clean Air Act nor the federal Submerged Lands Act preempted the regulations, the Ninth Circuit also found no Commerce Clause violation. The court recognized "the importance of uniformity as well as the unique role of the federal government in matters of foreign relations and international trade."[307] Nevertheless, the court upheld the law because it was not an attempt to regulate conduct in another state (such as a law "requiring automobiles driving from Arizona to switch to certain kinds of fuel twenty-four miles from the California border") and did not regulate conduct in the territory or waters of a foreign nation (such as a law requiring fuel switching "hundreds or even thousands of miles from the state's coast.").[308] Thus, the state's strong interest in protecting human health and the environment, which the law implemented in a nondiscriminatory manner, outweighed "any countervailing federal interests."[309]

These cases support the conclusion that the dormant Foreign Commerce Clause should not limit state and local laws governing coal and oil exports in the absence of a clear statement from Congress that all ports must allow such exports or that a uniform law on such exports is required.[310] In addition, Congress could create exclusive federal authority over coal export terminals and oil export terminals to prevent state and local interference with such exports. Congress did this when it enacted the Energy Policy Act of 2005 to create exclusive federal

303. Norfolk S. Corp. v. Oberly, 822 F.2d 388, 404 (3d Cir. 1987).
304. *Id.* at 405.
305. *Id.*
306. 639 F.3d 1154 (9th Cir. 2011).
307. *Id.* at 1179.
308. *Id.* at 1180.
309. *Id.* at 1181.
310. *See* Wilson, *supra* note 145, at 748–49 (arguing that courts should abandon or disfavor the dormant Foreign Commerce Clause in favor of using preemption doctrines that are based more firmly in express Congressional action); *cf.* Mobil Oil Corp. v. Comm'r of Taxes, 445 U.S. 425, 448 (1980) (stating that the Court could not find that the dormant Foreign Commerce Clause required all states to treat taxation of foreign entities identically "[a]bsent some explicit directive from Congress").

permitting authority over LNG terminals and eliminate state and local interference with natural gas imports and exports.[311]

In the Millennium Bulk Terminal case in Washington, Lighthouse cited former Secretary of the Interior Ryan Zinke's order lifting the Obama-era moratorium on federal coal leases as evidence of a "clear federal policy favoring coal exports" that established the need to "speak with one voice" under *Barclays Bank*.[312] The parties will likely make similar arguments in the South Portland, Maine, and Portland, Oregon, cases. Nevertheless, such executive branch statements likely would not meet the standard set forth in *Barclays Bank* to override state and local autonomy regarding land use decisions that do not give preference to in-state economic interests over out-of-state economic interests participating in the same market.

Finally, a question remains whether the growth in U.S. energy production will impact how courts will view the balance of state and federal authority over energy resources themselves. In many of the dormant Commerce Clause and dormant Foreign Commerce Clause disputes, courts consider whether the area in question has historically been a matter of state interest or federal interest.[313] Energy production and energy use have, for the most part, been a matter of state concern with pockets of federal regulation in discrete areas such as nuclear safety, interstate natural gas pipelines, natural gas exports, and the wholesale sale and transmission of electricity in interstate commerce.[314] But because of the country's increasing ability to export its abundance of energy resources, opponents of state regulation will undoubtedly argue that the policy balance should shift more strongly from the states to the federal government because such exports are in the nation's economic interests. However, so long as Congress remains silent, significant room for state energy policy remains under applicable legal doctrine.

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311. *See supra* notes 45–47 and accompanying text (discussing creation of federal authority for LNG terminals).

312. Plaintiffs Lighthouse Resources, et al. and Plaintiff Intervenor BNSF Railway Company's Reply in Support of their Motion for Partial Summary Judgment on Foreign Commerce Clause (Count I) at 7–8, Lighthouse Res. Inc. v. Inslee, 429 F. Supp. 3d 736 (W.D. Wash. 2019) (No. 3:18-cv-05005) (referencing a 1970 congressional declaration that "it is the continuing policy of the Federal Government in the national interest to foster and encourage private enterprise in the development of economically sound and stable domestic mining, minerals, metal and mineral reclamation industries"; a 1993 order by Congress to the Secretary of Commerce to prepare "a plan for expanding exports of coal"; and Congress's broadly delegated authority over foreign commerce and trade to the executive under the Trade Preferences Extension Act of 2015 to establish a "clear federal directive" of promoting coal exports).

313. *See supra* Part IV.B.1 (discussing longstanding judicial recognition of legitimate state interests in highway safety, wildlife, and environmental protection, among others).

314. *See* James W. Coleman, *Importing Energy, Exporting Regulation*, 83 FORDHAM L. REV. 1357, 1367 (2014) ("Although there are important federal energy regulations, the fifty states remain the focus of energy regulation and the most important energy policy innovators.").

IV.
BEYOND THE ENERGY EXPORT CASES

This Section applies the framework developed in Part III to other contemporary state and local energy policy initiatives, such as state renewable portfolio standards (RPSs), state 100 percent clean energy mandates,[315] and recent local bans on the use of natural gas in new buildings.[316] This Section also discusses the possibility that the future resolutions of both the energy export cases and state energy policy cases may ultimately lead the Supreme Court to adopt a "softer" approach to the dormant Commerce Clause that more securely protects state and local governments from the threat of litigation over their energy policy choices. State and local governments can facilitate the development of a more favorable dormant Commerce Clause doctrine if they are careful not to favor in-state economic interests over out-of-state economic interests in their land use decisions and energy policies.

A. State Renewable Portfolio Standards, 100 Percent Clean Energy Laws, and Local Natural Gas Bans

How a court defines the "relevant market" will continue to impact state RPS laws, the growing number of state 100 percent clean energy laws, and related state and local laws designed to reduce the use of fossil fuels to generate electricity and power the transportation sector. States began enacting RPS laws

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315. *See* Alexandra B. Klass, *Eminent Domain Law as Climate Policy*, 2020 WIS. L. REV. 49, 53–55 (2020) (discussing increasing number of state laws creating 100 percent "clean" energy standards); Coleman, *supra* note 314, at 1368–69 (detailing the range of state innovative energy policies including "renewable power standards, cap-and-trade systems, utility rate decoupling, coal-power phaseouts, renewable energy subsidies, and low-carbon fuel standards."); Federal Power Act, 16 U.S.C. §§ 824 (a)–(b) (declaring "the transmission of electric energy in interstate commerce and the sale of such energy at wholesale interstate commerce" subject to federal regulation); Natural Gas Act, 15 U.S.C. § 717b(e)(1) ("The Commission shall have the exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal."); Atomic Energy Act, 42 U.S.C. § 2011 *et seq*. (declaring federal regulatory authority will govern atomic energy development, establishing the Atomic Energy Commission, and granting the commission regulatory authority over atomic energy development); Energy Policy Act of 2005, Pub. L. No. 109-58, § 311, 119 Stat. 594, 685 (amending the Natural Gas Act to extend jurisdiction to the importation or exportation of natural gas in foreign commerce and to liquefied natural gas import and export terminals).

316. *See, e.g*., Jane Margolies, *"All Electric" Movement Picks Up Speed, Catching Some Off Guard*, N.Y. TIMES (Feb. 4, 2020), https://www.nytimes.com/2020/02/04/business/all-electric-green-development.html [https://perma.cc/3NK3-PU55] (discussing growing number of municipal bans on natural gas in new buildings); Phil McKenna, *These Cities Want to Ban Natural Gas. But Would it Be Legal?*, INSIDE CLIMATE NEWS (Dec. 12, 2019), https://insideclimatenews.org/news/12122019/natural-gas-ban-cities-legal-cambridge-brookline-massachusetts-state-law-berkeley-california [https://perma.cc/WC87-SCQS] (discussing municipal natural gas bans and questions regarding whether they are legal under state building codes and utility laws). Notably, California has also mandated the use of solar in new residential construction as of 2020. *See* Ann C. Mulkern, *Calif. Requires Solar on New Homes, A First for U.S.*, E&E NEWS: CLIMATEWIRE (Jan. 14, 2020), https://www.eenews.net/stories/1062074093 [https://perma.cc/ELE2-4QFY].

primarily in the 1990s, and they now exist in thirty states.[317] These laws require electric utilities in the state to obtain a certain percentage of the electricity they sell to customers from renewable energy resources by a set date, such as 20 percent by 2025 or 15 percent by 2030.[318] Some states have increased their percentage targets over time, with California now requiring utilities to obtain 60 percent of electricity sales from renewable resources by 2030, Nevada requiring 50 percent by 2040, and Hawai'i requiring 100 percent by 2045.[319]

So-called "100 percent clean energy laws" are of a more recent vintage, with state legislatures in Maine, Nevada, New Mexico, New York, Washington, California, and Hawai'i requiring electricity utilities to eliminate all carbon emissions from the electricity they sell to customers by 2050. Such laws require electric utilities to transition completely to carbon-free energy resources like renewable energy; hydropower; and, in some cases, nuclear energy or new technologies, like carbon capture and sequestration, which potentially enable the use of fossil fuels to generate electricity if that can be accomplished without GHG emissions.[320] Some of these laws also impose carbon reduction mandates on the transportation sector and buildings within the state.[321]

When states first enacted RPSs, they often contained requirements that electric utilities obtain a certain percentage of renewable energy from in-state renewable energy sources.[322] When out-of-state renewable energy generators threatened to challenge those laws, many states quickly removed those in-state requirements. Those states believed that a court would likely find that they discriminated against out-of-state interests on their face, as well as in purpose and effect, based on a market defined as "renewable energy."[323] At least at that point in time, the states seemingly had no evidence that wind, solar, or other renewable energy resources from neighboring states were any less effective in meeting the state's renewable energy goals than energy from in-state renewable energy resources. Thus, these in-state requirements were no more than economic protectionism.[324]

317. *See Renewable & Clean Energy Standards*, DATABASE OF ST. INCENTIVES FOR RENEWABLES & EFFICIENCY (DSIRE) (2020), https://s3.amazonaws.com/ncsolarcen-prod/wp-content/uploads/2020/09/RPS-CES-Sept2020.pdf [https://perma.cc/CV7Y-6TVT] (providing summary map).

318. *Id.*

319. *Id.*

320. *Id.*; *see also* Klass, *supra* note 315 (discussing state 100 percent clean energy laws).

321. *See* Klass, *supra* note 315, at 53 (discussing state laws that include economy-wide carbon reduction mandates).

322. *See* Felix Mormann, *Market Segmentation vs. Subsidization: Clean Energy Credits and the Commerce Clause*, 93 WASH. L. REV. 1853, 1856–58 (2018) (discussing state RPS laws with in-state preferences).

323. *Id.* at 1857 (stating that policymakers generally revised their RPS laws with in-state preferences rather than defend them in court).

324. *See, e.g.*, Illinois Com. Comm'n v. Fed. Energy Regul. Comm'n, 721 F.3d 764, 775–76 (7th Cir. 2013) (statement by Judge Posner, in dicta, that Michigan RPS requiring 10 percent of renewable electricity to come from in-state facilities discriminates against out-of-state renewable energy and

Using a fairly narrow "market" defined as "renewable energy resources" as opposed to "electricity" is what has so far supported facially neutral RPSs. Although courts do not always expressly discuss the appropriate "market" in these cases, one can argue that they implicitly conclude that the relevant market is renewable energy, which doesn't include coal, natural gas, and other fossil fuel resources. A narrow definition of the relevant market thus results in no violation of the dormant Commerce Clause.[325] For instance, in *Energy & Environment Institute v. Epel*, Justice Gorsuch, then on the U.S. Court of Appeals for the Tenth Circuit, wrote the opinion affirming the lower court's dismissal of a trade association's challenge to Colorado's RPS law on dormant Commerce Clause grounds.[326] Although the plaintiff had alleged in its complaint that the law discriminated against interstate commerce and regulated extraterritorially, the appeal was limited solely to the issue of extraterritoriality, and thus that is the only question the Tenth Circuit addressed. In finding the law did not regulate extraterritorially, Justice Gorsuch began by asking rhetorically why the dormant Commerce Clause would be at all relevant to a state policy "affecting Colorado energy consumption preferences and Colorado consumer prices."[327] In answer to his own question, he explained:

> Most everyone accepts that [the Commerce Clause] grants Congress authority to pass laws concerning interstate commerce and to direct courts to disregard state laws that impede its own. . . . Yet some see even more than that here. For many years . . . the Supreme Court has read the clause as embodying a sort of judicial free trade policy. Employing what's sometimes called "dormant" or "negative" commerce clause jurisprudence, judges have claimed the authority to strike down state laws that, in their judgment, unduly interfere with interstate commerce. Detractors find dormant commerce clause doctrine absent from the Constitution's text and incompatible with its structure. [Citing opinions by Justices Scalia and Thomas criticizing the dormant Commerce Clause.] But as an inferior court we take Supreme Court precedent as we find it and dormant commerce clause jurisprudence remains very much alive today . . . .[328]

violates the dormant Commerce Clause); Mormann, *supra* note 322, at 1867–68 (discussing the legal vulnerability of in-state generation requirements for state RPS laws).

325. *See, e.g.*, Energy & Env't Inst. v. Epel, 793 F.3d 1169, 1171 (10th Cir. 2015) (upholding Colorado RPS despite adverse impact on out-of-state coal interests). The same analysis holds true for the cases involving state nuclear plant subsidies and state renewable energy credit policies. *See, e.g.*, Allco Fin. Ltd. v. Klee, 861 F.3d 82, 91, 93 (2d Cir. 2017) (upholding Connecticut RPS that preferred in-region renewable energy credits based on *General Motors v. Tracy* and concluding that credits generated within the region served a different "market" than credits generated outside the region); Elec. Power Supply Ass'n v Star, 904 F.3d 518, 525 (7th Cir. 2018) (upholding Illinois zero emission credit program designed to support nuclear plants in the state); Coal. for Competitive Elec. v. Zibelman, 906 F.3d 41, 46 (2d Cir. 2018) (upholding similar New York program).

326. *Energy & Env't Inst.*, 793 F.3d at 1171.

327. *Id.* at 1170.

328. *Id.* at 1171 (citations omitted).

After this introduction to dormant Commerce Clause jurisprudence, Justice Gorsuch held that the Colorado RPS was not the type of price control regulation that the Supreme Court has invalidated under the extraterritoriality line of dormant Commerce Clause cases.[329] He then stated:

> To be sure, fossil fuel producers like EELI's member will be hurt. But as far as we know, all fossil fuel producers in the area served by the [electric] grid will be hurt equally and all renewable energy producers in the area will be helped equally. If there's any disproportionate adverse effect felt by out-of-state producers or any disproportionate advantage enjoyed by in-state producers, it hasn't been explained to this court.[330]

In this passage, Justice Gorsuch appears to recognize two separate markets—one for electricity generated by fossil fuels and another for electricity generated by renewable energy. Although dicta, this discussion is consistent with Justice Gorsuch's general skepticism of the dormant Commerce Clause as a barrier to state economic policy and is the only published federal court of appeals decision to date addressing a dormant Commerce Clause challenge to a facially neutral RPS.[331] Similar reasoning would seemingly apply to other states' RPS laws and 100 percent clean energy laws so long as they do not favor in-state renewable energy resources.

With regard to natural gas, numerous cities have begun to prohibit the use of natural gas in new residential and commercial buildings to transition to electricity-based heating and cooking and reduce dependence on fossil fuels.[332] In 2019, the City of Berkeley, California, became the first city to implement a total ban on natural gas connections to new buildings.[333] By the start of 2021, dozens of cities, mostly, but not exclusively, in California, had followed suit.[334]

Beyond state-specific statutes preempting such local bans,[335] nothing in the Natural Gas Act or any other federal law would appear to prohibit such a local

329. *Id.* at 1173.

330. *Id.* at 1174.

331. *See* Mormann, *supra* note 322, at 1867–74 (discussing legal challenges to different types of RPS laws and laws governing renewable energy credits and zero emission credits); *see also* Allco Fin. Ltd. v. Klee, 861 F.3d 82, 91 (2d Cir. 2017) (upholding as nondiscriminatory Connecticut law requiring utilities to obtain renewable energy credits to satisfy RPS requirements from generation facilities within multi-state region).

332. *See*, *e.g.*, Jeffrey Tomich, *Gas Ban Backlash Spreads Across the U.S.*, E&E NEWS: ENERGYWIRE (Feb. 2, 2021), https://www.eenews.net/energywire/2021/02/02/stories/1063724065 [https://perma.cc/W9Z5-ZH8R] (discussing cost and climate-related reasons for local laws mandating that new buildings switch from natural gas to electricity for heating and cooking and state legislative action to preempt such local laws).

333. Jonathan Mingle, *To Cut Carbon Emissions, a Movement Grows to "Electrify Everything*," YALE ENV'T 360 (Apr. 14, 2020), https://e360.yale.edu/features/to-cut-carbon-emissions-a-movement-grows-to-electrify-everything [https://perma.cc/PN52-SQCX].

334. *See*, *e.g.*, Tomich, *supra* note 332 (reporting on the dozens of cities that have prohibited natural gas infrastructure in new buildings since 2019).

335. *See id.* (discussing the growing number of states that have enacted or proposed legislation to prohibit such local natural gas bans, including laws in Tennessee, Oklahoma, Arizona, and Louisiana).

policy. But it is possible that natural gas producers or sellers would attempt to challenge such laws on the grounds that they discriminate against the natural gas industry and thus violate the dormant Commerce Clause. Such challenges should meet the same fate as RPS challenges that disfavor coal or other fossil fuel resources as they do not interfere directly with the physical movement of the resource or regulate outside the local government's borders but instead regulate the use of fuels within the relevant jurisdiction.

B. Opportunities for the Supreme Court to Refine Its Dormant Commerce Clause Jurisprudence

The energy export cases or the energy cases that follow them may serve as attractive opportunities for the more conservative justices on the Supreme Court to attack dormant Commerce Clause jurisprudence that threatens the ability of states to make economic, environmental, and land use decisions. Certainly, based on their dormant Commerce Clause opinions to date, Justices Thomas and Gorsuch would welcome the opportunity and may find allies in some of the more liberal justices who have emphasized in other contexts the autonomy of the states to protect their lands and waters from environmental degradation and the impacts of climate change.[336]

A movement in this direction could allow the dormant Commerce Clause to still serve as a check on discriminatory state and local laws, as Justice Scalia ultimately accepted at least in part when he was on the Court.[337] But in the absence of facial discrimination, it would be up to Congress to police state laws and enact legislation under its express Commerce Clause authority to limit state and local bans or restrictions on the generation, use, transport, or export of particular energy resources, as it has already chosen to do for certain natural gas facilities (pipelines and LNG terminals) but not for other types of energy resources or facilities. Congress would also continue to decide whether it was critical for the nation to "speak with one voice" with regard to sales of energy with foreign nations rather than the courts giving deference to executive branch

336. *See* Massachusetts v. EPA, 549 U.S. 497, 518–19 (2007) (recognizing Massachusetts' interest in "preserv[ing] its sovereign territory" and quoting Georgia v. Tennessee Copper Co., 206 U.S. 230, 237 (1907), for the proposition that "'the State has an interest independent of and behind the titles of its citizens, in all the earth and air within its domain. It has the last word as to whether its mountains shall be stripped of their forests and its inhabitants shall breathe pure air'"); Hughes v. Talen Energy Mktg., LLC, 136 S. Ct. 1288, 1299 (2016) (holding that the Federal Power Act preempted Maryland law designed to subsidize new electric generation facilities in the state by altering wholesale rates paid for those facilities' generation of electricity, but emphasizing that the opinion does not call into question "the permissibility of various other measures States might employ to encourage development of new or clean generation, including tax incentives, land grants, direct subsidies, construction of state-owned generation facilities, or re-regulation of the energy sector").

337. *See* United Haulers Ass'n v. Oneida-Herkimer Solid Waste Mgmt. Auth., 550 U.S. 330, 348 (2007) (Scalia, J., concurring in part) (stating his willingness to enforce application of the dormant Commerce Clause to invalidate facially discriminatory laws on stare decisis grounds but confirming his view that "the so-called 'negative' Commerce Clause is an unjustified judicial invention").

statements or orders on the subject. Whether the Court moves in this direction remains to be seen. Regardless of whether or how soon the Supreme Court takes up the question, lower courts will almost certainly develop their own "law of energy exports" through resolution of the current and future controversies. In doing so, the courts should draw on existing legal doctrine regarding the relevant market and state and local authority over land use and environmental protection within their borders. This way, the courts can both avoid discrimination against interstate commerce while still allowing state and local governments to fully exercise their well-recognized authority over land use and environmental protection for the benefit of their citizens.

CONCLUSION

This Article illustrates that the energy export cases pending in multiple jurisdictions have the potential to shape the future jurisprudence of the dormant Commerce Clause and dormant Foreign Commerce Clause in significant ways. Resolution of the lawsuits over energy exports will significantly strengthen or weaken the ability of states and local governments to enact policies that affect a broad range of energy markets. The law of energy exports will also impact legal doctrines that apply to trade with other nations. The Supreme Court jurisprudence in this area contains significant tools to protect state and local government autonomy to enact new laws that reduce the climate impacts of energy use and protect their citizens from localized environmental harms associated with fossil fuel facilities. This is especially true because current doctrine narrowly defines the "market" for the purpose of dormant Commerce Clause analysis. However, state and local governments must avoid favoring in-state economic interests in enacting those laws and articulate specific environmental and public health justifications for their regulations and land use decisions. Decades of Supreme Court case law, along with more recent, fact-specific appellate court case law, provide a helpful roadmap for states and local governments wishing to pursue this path. Likewise, the energy exports cases and the ones that will follow may provide an opportunity for Justices on the Supreme Court to diminish the role of the dormant Commerce Clause in a manner that shifts more authority for policing state economic protectionism to Congress and away from the judicial and executive branches of government.