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Federal Eminent Domain and Interstate Energy Infrastructure: Evidence from History*

Zachary Liscow **Joseph S. Shapiro** **Heidi Williams**

November 6, 2026

Abstract

We analyze a historical episode to generate evidence on how federal eminent domain authority affected construction of energy transportation infrastructure. The 1947 amendment to the Natural Gas Act gave federally approved interstate natural gas pipelines the power to acquire rights of way by eminent domain when negotiations with landowners failed. We compare construction of interstate gas pipelines with construction of oil pipelines and of within-state gas pipelines, neither of which was directly affected by the reform, using newly digitized historical government records and trade press listings. After 1947, annual additions to interstate gas pipeline mileage rose nearly sixfold while oil pipeline growth held steady, and the gain in interstate mileage was nearly five times the gain for within-state pipelines. Both comparisons suggest that the amendment substantially increased interstate gas pipeline construction. We discuss what this historical evidence implies for current congressional proposals to provide federal eminent domain authority for interstate electricity transmission.

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Building energy infrastructure can require obtaining rights of way from many landowners and approvals from multiple jurisdictions, each of which can delay or veto a project. That set of constraints is at the heart of current debates over electricity transmission, which is central both to the data center buildout and to efforts to expand clean energy generation (Gillett 2026; Jenkins et al. 2022).

A key policy question is whether this structure of permissions and approvals is a binding constraint on private investment. In this paper, we provide historical evidence on this question by analyzing the 1947 amendment to the Natural Gas Act, which provided the power of eminent domain to federally approved interstate gas pipelines. Under the amendment, a developer who could not agree with a landowner could acquire the right of way in federal court.[1] To assess how this amendment affected private investment, we compare construction of interstate gas pipelines with two types of pipeline that the amendment did not directly affect: interstate oil pipelines and within-state gas pipelines. We use newly digitized historical data on U.S. pipeline construction in the 1940s and 1950s from three sources: company-level mileage from the Federal Power Commission and the Interstate Commerce Commission, and listings of construction projects from the trade publication *The Oil Weekly*. We corroborate these with data from a fourth source: national mileage reported by the American Gas Association.

Both comparisons suggest that federal eminent domain authority under the 1947 amendment substantially increased interstate gas pipeline construction. Annual additions to interstate gas pipeline mileage rose nearly sixfold after 1947. Oil pipelines, by contrast, grew at similar annual rates before and after 1947. Put another way, interstate gas pipelines had about 10% less mileage than interstate oil pipelines in 1946 and similar trends up to that point, but about 30% more mileage by 1953.

A comparison against within-state gas pipelines paints a similar picture. Before 1947, construction of both types of pipeline was limited. After 1947, annual construction of interstate pipelines rose by nearly five times the increase for within-state pipelines.

We believe this is the first study to estimate the effect of the 1947 amendment on pipeline construction. Several legal and historical studies describe the amendment's legal context and the politics behind it (Klass and Meinhardt 2015; Ely 2020; Gocke 2023). None measures how the amendment affected pipeline construction.

We also add to a small but growing empirical literature on how permitting requirements

[1]Eminent domain is the power to take private property for public use with just compensation; governments can delegate this power to firms like pipeline companies. Condemnation is the court proceeding in which the holder of eminent domain power uses it to acquire property such as a right of way. A right of way is the property interest a project needs, in our setting typically an easement to build and operate the pipeline or transmission line across a strip of land.

affect private investment. Existing studies mostly examine project costs and completion times rather than the quantity of infrastructure built (Liscow 2025), and suggest meaningfully large effects of permitting on project costs and time-to-build (Bennon and Wilson 2023; Brooks and Liscow 2023). Fewer studies directly estimate the effects of permitting requirements on private investment, mostly for housing, land development, and energy (Liu 2025; Druckenmiller et al. 2026; Gabriel and Kung 2026; Soltas and Gruber 2026; Tabarrok 2026).

Our results also bear on the current congressional debate over the Bipartisan American Affordability and Jobs Act of 2026 (BAAJA). Among the most economically consequential components of BAAJA is federal preemption over siting interstate electricity transmission lines, which resembles the federal eminent domain authority for natural gas pipelines that we study. Many sources note the relevance of the natural gas experience to the proposed transmission reform. Blaug and Nichols (2025) develop this comparison in detail, drawing lessons from the Natural Gas Act's siting framework for federal transmission siting. We build on their work by estimating how much federal authority increased new construction. Several analyses of BAAJA compare its federal siting authority for interstate transmission lines with the Federal Energy Regulatory Commission's authority over interstate gas pipelines (Brenner 2026; Lawson 2026; Levine and Reed 2026; Mackenzie 2026; Zeger et al. 2026), which combines federal approval of a route with federal eminent domain. The 1947 amendment we study isolates the second of these powers—the Federal Power Commission already approved interstate pipelines, and the amendment added the power to condemn land. Current projections of BAAJA's effects (Millican et al. 2026; Rennert and Bergman 2026) have been constructed despite little direct evidence on how new federal authority has changed construction in the past.

Before proceeding, we note three limits of this evidence. First, the samples are small. Most of our regressions use 18 to 24 year-level observations, too few to cluster standard errors, so we put more weight on the figures than on the regressions. The main patterns are large enough to see in the raw data. Second, we discuss other postwar changes and cannot fully rule out a role for them, though we assess that they are unlikely to explain most of our results. Third, precision varies for alternative specifications that relax some assumptions, particularly for proportional growth estimates, since within-state construction began from nearly zero. These limitations call for careful interpretation. Still, the 1947 amendment is an important episode that many current policy analyses cite but that prior work has not analyzed quantitatively, and we believe these comparisons provide the best available evidence on it.

1 Institutional Context: The Natural Gas Act

Congress passed the Natural Gas Act in 1938 to regulate interstate gas companies that fell beyond the reach of state rate regulation. The Act gave the Federal Power Commission authority over interstate transportation and wholesale rates (Merrill 1980; Pierce 1995, 1988).

Until 1947, the Federal Power Commission approved interstate pipelines, but a pipeline's ability to use eminent domain depended on the law of each state it crossed. This division of authority was perceived as creating three problems for developers (U.S. House Committee on Interstate and Foreign Commerce 1947; Ely 2020; Gocke 2023). First, pipeline opponents whose objections the Federal Power Commission rejected could raise them again in each state along the route. Second, many states denied eminent domain to out-of-state corporations and to pipelines that crossed a state without serving its residents. Third, landowners could hold out for high prices. For example, one firm paid over $27,000 for an entire 93-acre farm to obtain a 3,200-foot strip of right of way that would normally have cost no more than $4,000 (U.S. House Committee on Interstate and Foreign Commerce 1947, p. 556).

The 1947 amendment sought to address these issues. The amendment applied to developers that held a certificate of public convenience and necessity (i.e., the Federal Power Commission's approval to build an interstate pipeline). If such a developer could not agree with a landowner on a price, the developer could acquire the right of way by eminent domain in federal court, and the court would set the compensation.

The design of the 1947 amendment lets us compare investment in interstate gas pipelines with two comparison groups. The first is interstate oil pipelines. Gas and oil pipelines used the same steel pipe and faced the same input shocks, but the 1947 amendment did not change how oil pipelines acquired rights of way.[2,3] The second is within-state gas pipelines, which the Act did not directly affect.

Some effects of the amendment could appear in 1947 for projects that already held a certificate when the amendment passed in July 1947. However, we expect the full effect on completed construction to appear a year or more after passage, because developers needed time to obtain a certificate from the Federal Power Commission and then to build the pipeline.[4]

[2]Oil pipelines never received permanent federal eminent domain and needed approval from each state they crossed (Klass and Meinhardt 2015). The Cole Act of 1941 granted federal eminent domain temporarily to pipelines needed for national defense, but the authority expired in 1943 (U.S. Congress 1941; Klass and Meinhardt 2015).

[3]We use "gas" to mean natural gas; we do not separately discuss gasoline.

[4]A few cases from Federal Power Commission dockets suggest that a certificate took five to six months to obtain (Federal Power Commission 1939, p. 546; 1941, p. 1044; 1946a, p. 633). Construction took around a year for the Tennessee Gas and Transmission Company's pipeline from Texas to West Virginia and for the government's Big Inch oil pipeline (Raley 2008; Palmer and Johnson 2023).

2 Data

We measure pipeline construction in the 1940s and 1950s with three sources that we believe no prior study has digitized: company-level pipeline mileage from the Federal Power Commission and the Interstate Commerce Commission, and listings of individual construction projects from the trade publication *The Oil Weekly*.[5] We use a fourth data source, national mileage from the American Gas Association's *Historical Statistics of the Gas Industry*, as corroboration, though these data are not rich enough to use in our main analyses. Appendix Table 1 provides a summary of key details on these data sources.

Interstate Natural Gas and Oil Companies Each year, the Federal Power Commission and the Interstate Commerce Commission published each regulated company's year-end pipeline mileage, compiled from mandatory reports; Appendix Figures 1 and 2 provide examples of what information is available from these sources. Separate agencies reported data on gas versus oil pipelines because Congress regulated the two fuels under separate laws.[6] We measure new construction as the year-over-year change in the national pipeline stock. A robustness check attempts to adjust for company entries and exits, which in principle could change reported mileage even if there were no real additions or removals of pipelines (see Appendix A.1).

The annual *Statistics of Natural Gas Companies* (Federal Power Commission 1942–1954), first published in 1942, reports each company's miles of gas transmission pipelines. We digitize the volumes for 1942–1953.[7] We end the sample in 1953 because the Hinshaw Amendment of 1954 exempted some pipeline companies from the Commission's jurisdiction; almost 30% of companies, with over 10,000 miles of transmission pipelines, dropped out of the 1954 report (Appendix A.1).

The *Statistics of Oil Pipe-Line Companies* (Interstate Commerce Commission, Bureau of Transport Economics and Statistics 1948–1954) reports the pipeline mileage of interstate common carriers of crude oil and refined products, which were required to carry oil for any shipper on equal terms. We digitize the same years, 1942–1953, to measure mileage of trunk pipelines, which are the oil counterpart of gas transmission pipelines—both carry fuel long distances after extraction (Appendices A.1 and A.2). Hereafter, "interstate gas pipelines" and "interstate oil pipelines" refer to these transmission and trunk pipelines. The totals

[5] *The Oil Weekly*, published by the Gulf Publishing Company, was renamed *World Oil* in 1947; for simplicity, we refer to both as *The Oil Weekly*.

[6] The Hepburn Act of 1906 placed interstate oil pipelines under the Interstate Commerce Commission, and the Natural Gas Act of 1938 placed interstate gas pipelines under the Federal Power Commission.

[7] We found no 1943 volume, likely because the Commission suspended the publication during World War II (U.S. House Committee on Appropriations 1946, p. 87).

may include within-state pipelines that interstate companies also operated, which cannot be separately measured in these data (Appendix A.1). The published data on interstate oil pipelines also lack information on pipeline diameter.

Project Construction Listings We digitize listings of individual pipeline construction projects from the annual yearbook issues of *The Oil Weekly*, a petroleum industry trade journal that, despite its name, also covered gas pipelines (Gulf Publishing Company 1943–1951). The yearbooks list proposed, planned, ongoing, and completed projects in a consistent annual format over the years 1942–1950. Before and after this period, the reporting scope varied significantly, and the data appear to be much less comprehensive.[8] These listings let us observe new construction directly rather than infer it from changes in total mileage (Appendix A.3). Appendix A.3.1 describes how we classify interstate versus within-state pipelines. The 1950 *Oil Weekly* yearbook describes the data as compiled from monthly surveys of contractors, pipeline companies, the Federal Power Commission, and other agencies, but does not assess how complete its coverage was or whether coverage varied over time. In Appendix A.4, we construct a comparison of these data against other sources.

Because the *Oil Weekly* listings often report pipeline diameters, our comparison of interstate and within-state gas pipelines analyzes capacity-weighted mileage as an outcome, which more comprehensively captures the economic value of each new mile of pipeline. We compute a capacity scaling factor equal to a pipe's diameter raised to the power of 2.5, which is roughly proportional to the pipe's flow capacity (Appendix A.3.2), and weight the mileage by this factor. We express the total in miles of 24-inch-equivalent pipe. Because we lack data on oil pipeline diameters, the comparison of interstate gas and oil pipelines uses unweighted mileage. To focus on transmission pipelines, we restrict the *Oil Weekly* sample to pipes at least 22 inches in diameter (Appendix A.3.1).

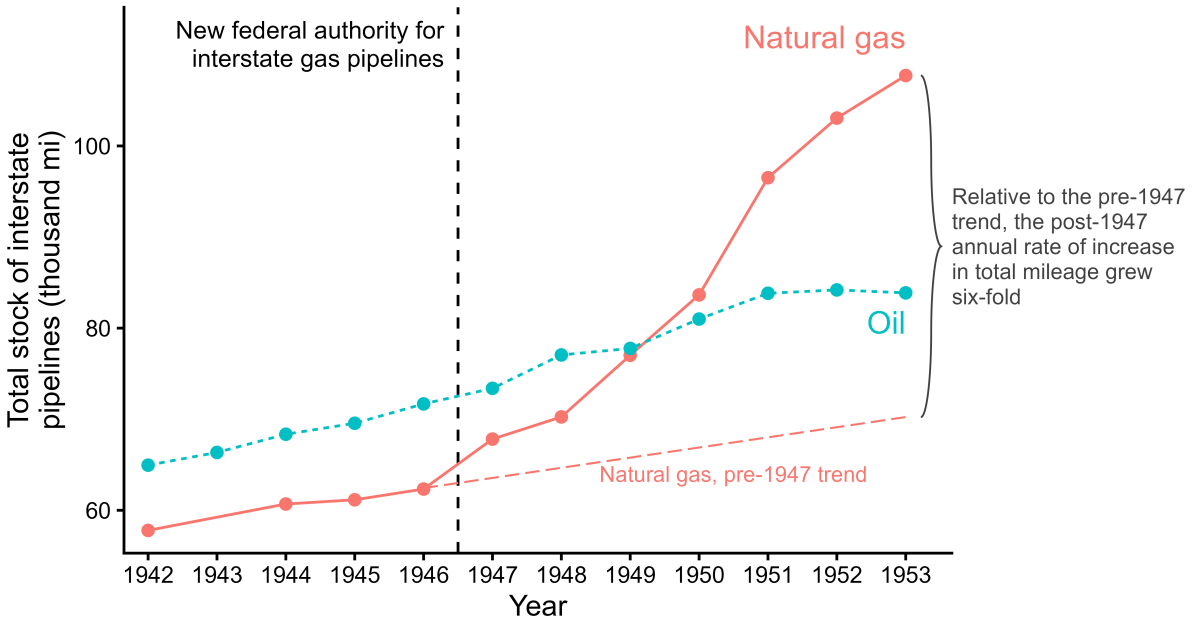
American Gas Association Statistics We use a fourth source only to corroborate the *Oil Weekly* listings. The *Historical Statistics of the Gas Industry* (American Gas Association 1961) reports the national year-end stock of gas mains. We take its data for 1942–1950 and measure new construction as the annual change in this stock. Before 1946, the data combine field, gathering, transmission, and distribution mains, so we cannot separate interstate from within-state pipelines in these data, and we do not use these data for our main estimates (Appendix A.4).

[8]Earlier yearbooks summarize only notable projects. From 1951, construction news moved out of the annual yearbook into monthly sections, and potential changes in reporting methodology are not clearly documented; by late 1952 the scope of sample inclusion had definitively changed to focus primarily on proposed, approved, and ongoing construction rather than completed projects.

3 Results

3.1 Interstate Natural Gas Versus Interstate Oil Pipelines

Figure 1: The Stock of Interstate Pipeline Miles for Natural Gas Grew Relative to Oil After the 1947 Amendment Provided Federal Eminent Domain for Gas



Note: Data are transmission pipeline miles from the Federal Power Commission's *Statistics of Natural Gas Companies* and trunk pipeline miles from the Interstate Commerce Commission's *Statistics of Oil Pipe-Line Companies*, summed across companies. Mileage is not adjusted for companies entering or leaving the reports (Appendix A.1). Federal Power Commission data are not available for 1943.

Figure 1 compares the annual national stock of interstate natural gas pipelines with the stock of interstate oil pipelines. Appendix Figure 4 shows the annual change in mileage, which is the slope of Figure 1.

Interstate gas pipelines grew much faster than oil pipelines after the 1947 amendment (Figure 1). Before 1947, interstate gas and oil pipelines grew at similar rates, with gas growing slightly more slowly. Beginning in 1947 and accelerating thereafter, interstate gas pipeline mileage expanded more rapidly. The gas pipeline stock was about 10% smaller than the oil pipeline stock in 1946 but about 30% larger by 1953. Appendix Figure 4 shows more directly that after 1947, annual additions to interstate gas pipeline mileage increased nearly sixfold, while annual additions to interstate oil pipeline mileage stayed nearly constant.

One way of quantifying the patterns in Figure 1 is with difference-in-differences regressions that compare interstate gas and oil pipeline mileage before versus after 1947, estimated by ordinary least squares with fixed effects for fuel and year. Because each regression has

only 20 to 24 year-fuel observations, we report HC2 heteroskedasticity-robust standard errors and compute p-values with the Bell–McCaffrey degrees-of-freedom adjustment, as Imbens and Kolesár (2016) recommend for small samples. With only two series, we cannot cluster to account for serial correlation within each series.

Consistent with the patterns that are visually apparent in Figure 1, these regression estimates suggest that the 1947 amendment substantially increased interstate gas pipeline mileage (Appendix Table 2, columns 1 and 2). In 1947 and subsequent years, natural gas added over 5,000 more miles of pipeline per year than oil, relative to the gap before 1947. Measured by year-end stocks, the gas pipeline stock grew by about 14,400 more miles than the oil stock after 1947, relative to the gap before 1947. This increase equals about a quarter of the 1942 gas pipeline stock of just under 60,000 miles. Both estimates are statistically significant at conventional levels.

These ordinary least squares estimates provide a transparent quantification of the changes in pipeline miles by fuel type over time plotted in Figure 1. An alternative quantification would be based on proportional models, and for completeness and comparability we also report Poisson pseudo-maximum likelihood estimates. These Poisson estimates imply a similar magnitude to the ordinary least squares estimates. Specifically, the linear model implies about 5,300 additional miles of gas pipeline per year (Appendix Table 2, column 2), and the Poisson estimate of 1.57 implies that gas construction ran about 4.8 times its counterfactual level (column 4).

Appendix Table 3 reports a robustness test that attempts to adjust both series for companies that enter or leave the reports. This alternative leaves the estimates for annual new pipeline additions nearly unchanged and lowers the year-end stock estimates by about 20 to 25% relative to the baseline magnitude. Estimated precision remains similar.

3.2 Interstate Versus Within-State Natural Gas Pipelines

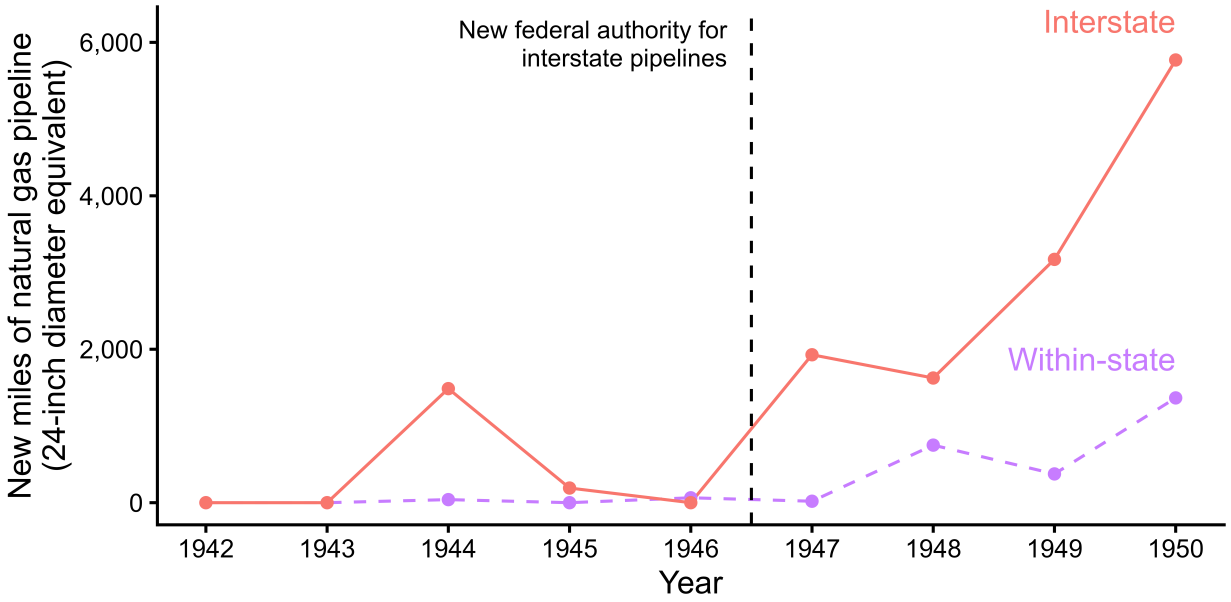
Figure 2 compares construction of interstate and within-state natural gas pipelines, using project-level data from *The Oil Weekly*. Each point shows the pipeline mileage completed in that year, measured in miles of 24-inch-equivalent pipe.

Before 1947, almost no large transmission pipelines were completed in most years (Figure 2).[9] Construction expanded rapidly after 1947 for both interstate and within-state pipelines. Annual interstate construction rose rapidly in capacity-weighted miles, while within-state construction rose much less (Appendix Table 8). Because within-state construction started

[9]Figure 1 shows steady growth in interstate gas mileage before 1947. The difference between Figures 1 and 2 partly reflects the 22-inch minimum diameter we use to proxy for transmission pipelines (Appendix A.4 and Appendix Figure 13).

from nearly zero, it grew faster in percentage terms, so we compare changes in miles rather than ratios. The gap between interstate and within-state pipelines widened over time. In 1950, the last year of the sample, new interstate construction exceeded new within-state construction by over 4,000 capacity-weighted miles.

Figure 2: For Natural Gas, Interstate Pipelines Expanded Relative to Within-State Pipelines Beginning in 1947



Note: Data are from the yearbook listings of *The Oil Weekly*. The sample covers completed new construction of pipeline segments at least 22 inches in diameter; it excludes segments with no reported diameter, pipeline conversions, and projects still under construction. Capacity-weighted mileage is reported in miles of 24-inch-equivalent pipe.

After 1947, interstate pipelines added about 2,200 more capacity-weighted miles per year than within-state pipelines did, relative to the gap before 1947 (Appendix Table 4). This estimate is statistically significant at conventional levels and represents an increase in capacity-weighted miles of about 230% over the counterfactual baseline. The estimate and its standard error are similar if we include all pipes at least 12 inches in diameter, a sample that likely mixes some distribution lines with transmission lines. Including pipes of all diameters, the estimated increase is smaller and less precise.

As with our quantification of the patterns in Figure 1, we focus our quantification of the patterns in Figure 2 on ordinary least squares estimates, which directly estimate changes in capacity-weighted miles in a way that matches our graphical presentation of the data. For completeness, we also report Poisson pseudo-maximum likelihood estimates (Appendix Table 5). The Poisson point estimates are negative, reflecting within-state construction that started from nearly zero before 1947, and have large standard errors that fail to reject either

the main estimates from Appendix Table 4 or an effect of zero.

4 Discussion and Alternative Explanations

The previous section presents evidence suggesting that interstate gas pipelines expanded rapidly after 1947, relative to both interstate oil pipelines and within-state gas pipelines. Each comparison has advantages. Gas and oil pipelines used similar inputs and had similar cost structures, so shocks to input costs such as steel prices or technological advancements affected both. For this reason, we view the gas-versus-oil estimates as slightly more informative. The interstate versus within-state comparison holds the fuel fixed, so changes in demand for gas relative to oil do not affect it. However, the interstate versus within-state comparison has the challenge that pipelines form networks. To the extent that a new interstate pipeline may induce construction of connected within-state pipelines, this would raise construction in the comparison group and would lead this comparison to understate the effects of the 1947 amendment. Restricting the sample to segments at least 22 inches in diameter removes most field, gathering, and distribution lines, which reduces but may not eliminate this concern. The pattern of smaller estimates when we loosen that restriction is consistent with these network effects understating this comparison.

We also consider explanations for these findings other than the eminent domain authority in the 1947 amendment. One alternative explanation is that U.S. demand for natural gas shifted outward after World War II. The Federal Power Commission attributed demand growth to gas space heating, higher prices and wartime shortages of other fuels, construction postponed during the war, and its own reductions in pipeline companies' wholesale rates (Federal Power Commission 1947; Federal Power Commission 1948). The Commission reported a postwar shortage of large-diameter steel pipe as well(Federal Power Commission 1948). Gas reserves were also declining in some populous and industrially productive areas, including Appalachia and California, so developers proposed long interstate pipelines from the South. Our comparison of gas against oil accounts for demand growth common to both fuels. The question is therefore whether demand grew more for gas than for oil.

If demand for gas rose relative to demand for oil, gas prices might have risen relative to oil prices. Wholesale and retail gas prices barely moved after the war while oil prices rose sharply (Appendix Figure 8), but regulators set these gas rates, so they say little about demand.[10] Wellhead gas prices, which the Federal Power Commission did not regulate before

[10]The Federal Power Commission regulated interstate wholesale gas rates from 1938 (U.S. Congress 1938) but did not regulate independent producers' wellhead sales before 1954 (Supreme Court of the United States 1954). Federal price ceilings on petroleum, in place since early in World War II, ended in 1946 (U.S. Congress 1946). Korean War price controls covered both oil and wellhead gas from 1951 to 1953 (Office of

1954, provide a cleaner comparison. From 1947 through 1950, when neither wellhead gas nor oil faced federal price ceilings, wellhead gas prices rose less than oil prices. This does not point to demand for gas substantially outpacing demand for oil, though prices also reflect supply: new pipelines and growing gas supply could have held down gas prices even if demand for gas grew faster.

Fuel consumption provides a second basis for assessment. In absolute terms, consumption of natural gas and oil rose by similar amounts after World War II, measured in British thermal units (Appendix Figure 9), which does not suggest a relative demand shock for gas. Because gas began from a smaller base than oil, though, its consumption grew faster in percentage terms. Consumption is also an imperfect test, because gas could reach new customers through new pipelines, so part of the growth in gas consumption may reflect the new pipelines themselves rather than demand. For this reason, we put somewhat more weight on the wellhead price comparison than on the consumption data.

A related concern is that oil could also move by rail or water, so suppliers could meet some postwar demand for oil without building pipelines. Gas, by contrast, could travel long distances in volume only by pipeline (Klass and Meinhardt 2015; Coleman and Klass 2019). In fact, Klass and Meinhardt (2015) argue that this dependence on pipelines is why Congress gave gas pipelines, but not oil pipelines, federal siting and eminent domain authority. This difference could help explain why oil pipeline mileage grew at about the same rate before and after 1947 (Figure 1). It would also bias the gas–oil comparison toward finding an effect of the 1947 amendment, since demand growth common to both fuels would raise gas pipeline construction more than oil pipeline construction. The comparison of interstate and within-state gas pipelines does not face this concern, since both types of pipeline carry gas.

Demand growth raises a different question for the interstate versus within-state comparison, which holds the fuel fixed: did postwar demand shift toward gas that had to cross state lines? Gas reserves were concentrated in a few southwestern states and declining in Appalachia and California (U.S. House Committee on Interstate and Foreign Commerce 1947), so growing demand in distant population centers required interstate pipelines. This shift would make the comparison overstate the amendment's effect. Such a shift would likely raise interstate construction gradually, though, while Figure 2 shows interstate construction pulling away from within-state construction beginning in 1947.

The winter of 1946–47 brought a sharper shock. Gas shortages in the Midwest and Appalachia led the Federal Power Commission to ration pipeline capacity and, as an emergency stopgap, to let the wartime Big Inch and Little Big Inch oil pipelines carry gas (Federal Power Commission 1938–1951). Our data exclude these conversions, but the shortages themselves

Price Stabilization 1951c,a,b, 1953).

could have spurred new gas pipeline construction after 1947. These shortages are hard to separate from the amendment, though, because supporters of the amendment blamed them partly on the difficulty of acquiring rights of way (U.S. House Committee on Interstate and Foreign Commerce 1947). If the right-of-way problem helped cause the shortages, then the construction that followed partly reflects the constraint the amendment removed, and belongs to the amendment's effect rather than to a separate confound.

Other regulatory changes around 1947 are, in our assessment, less likely to explain our findings. In 1946, the Federal Power Commission adopted an expedited process for certificate hearings, but this followed previous informal efforts to speed certificate grants and applied only to uncontested applications, which would have faced little resistance in any case, and did not make approval more likely (Federal Power Commission 1946b). A postwar crackdown by Texas regulators on flaring gas at oil wells may have provided a motivation to build out a transportation network for the new gas supply, but a rush to comply with the orders favored quicker within-state construction (Olien 1995), which would have narrowed the gap between interstate and within-state construction.

The historical data limit what these tests can show. Year fixed effects absorb shocks common to both groups, but with 18 to 24 observations we cannot add controls for changes that differ between them, as a study with modern microdata might. We instead use historical and institutional evidence. That evidence suggests that the alternative explanations above are unlikely to account for most of the increase in interstate gas pipelines, though we cannot rule out contributions from these other explanations.

5 Conclusion: Lessons for Permitting Electricity Transmission

The 1947 setting resembles interstate electricity transmission today in three ways. First, the 1947 amendment to the Natural Gas Act removed obstacles much like those facing transmission developers today. Before 1947, pipeline opponents who lost before the Federal Power Commission could relitigate their opposition in every state along a pipeline's route. Many states denied eminent domain to out-of-state corporations and to pipelines that crossed the state without serving local residents. Transmission developers report facing similar veto points. A power line may need separate approvals in each state it crosses, and each state reassesses whether the project is needed (Klass 2015). State law often lets state commissions approve only lines that benefit their own state, and some states deny condemnation powers to private transmission developers, which leaves developers exposed to landowner holdouts

(Klass 2015; Mackenzie 2026).[11]

Second, both settings involve moving energy from distant sources to growing markets. Postwar demand for gas grew steadily, and depleted reserves in Appalachia and California meant that new supply had to come from distant fields in the Southwest (Federal Power Commission 1938–1951). Today, low-cost renewable generation is often located far from population centers, and the grid increasingly moves electricity across state lines (Klass 2015), even as data centers drive rapid growth in electricity demand (Gillett 2026).

Third, the same federal agency regulates both types of lines. Interstate gas pipelines around 1947 and interstate transmission lines today recover costs through rates set by the Federal Energy Regulatory Commission, which succeeded the Federal Power Commission. BAAJA, the legislation currently under consideration by Congress, would also use a mechanism similar to the one in the 1947 amendment—allowing the Federal Energy Regulatory Commission to approve an interstate transmission line, with federal eminent domain, when a state denies the project or fails to act within a year and the Federal Energy Regulatory Commission finds the line to be in the national interest (Mackenzie 2026). BAAJA goes further than the 1947 amendment in one respect and less far in another. The 1947 amendment preempted only state control over condemnation, while under BAAJA the Federal Energy Regulatory Commission would also approve the route. But BAAJA's federal authority applies only as a backstop after the state process.

These parallels bear on a central question in the debate over BAAJA: how much transmission would federal siting authority create? Most evaluations of recent permitting legislation (Teplin et al. 2024; Rennert and Bergman 2026) and of transmission reforms more generally (Greenline Insights and Center for Climate and Energy Solutions 2026) rely on modeled scenarios that partly assume an answer. Energy modelers note that their models struggle to capture the effects of permitting reforms (Robertson et al. 2024). Our estimates offer ex post evidence on this question from one important historical precedent.

Important differences remain. Modern transmission projects face environmental review and complex regional planning processes that differ from pipeline siting in 1947. Utilities operate as regulated monopolies that can pass some costs to captive customers (Macey 2024), and they have incentives to favor local projects they control over regional lines whose costs must be divided among many beneficiaries (Mackenzie 2026). For these reasons, Elmendorf et al. (2025) argue that permitting reform without reform of utility incentives might have "much less effect" than the two reforms combined.

BAAJA pairs federal siting authority with several such complementary reforms: deadlines

[11]The Rock Island Clean Line, for example, lost its Illinois approval in 2017 because its developer did not qualify as a public utility under state law (Mackenzie 2026).

and litigation limits for environmental review, mandatory interregional planning using common methods to measure benefits, beneficiary-pays cost allocation reviewed by the Federal Energy Regulatory Commission, and penalties for utilities that favor inefficient local projects (Mackenzie 2026). In this respect BAAJA comes closer to the 1947 setting, where a federal framework for approving interstate pipelines and regulating their rates already existed when the amendment added condemnation power. It also comes closer than the backstop siting authority Congress created in 2005, which has never been used (Lawson 2026).

Our estimates do not forecast how much transmission BAAJA would add; that would require accounting for modern cost drivers, planning processes, utility incentives, and demand. But the last time Congress gave interstate energy infrastructure federal eminent domain, construction rose sharply within a few years, relative to both comparison groups. Together with the institutional parallels, this history suggests that BAAJA's siting provisions, combined with its planning and cost-allocation reforms, could markedly increase construction of interstate transmission.

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Appendix

The online appendix is available at: https://tinyurl.com/pipelines-appendix