

No. 25-170

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IN THE

**Supreme Court of the United States**

SUNCOR ENERGY (U.S.A.) INC., ET AL.,

*Petitioners,*

v.

COUNTY COMMISSIONERS OF BOULDER COUNTY, ET AL.

*Respondents.*

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**On Writ of Certiorari to the  
Supreme Court of Colorado**

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**BRIEF OF *AMICUS CURIAE*  
PROFESSOR JASON JOHNSTON  
IN SUPPORT OF PETITIONERS**

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## STATEMENT OF INTEREST<sup>1</sup>

Professor Jason Johnston is the Blaine T. Phillips Distinguished Professor in Environmental Law and Director of the Olin Program in Law and Economics at the University of Virginia School of Law. He has authored numerous peer-reviewed articles and books on environmental law, energy policy, and the economic implications of regulatory frameworks. His scholarship has been cited by courts and policymakers in the United States and abroad.

Professor Johnston submits this brief as *amicus curiae* to offer the Court an economic and legal perspective on the far-reaching consequences of climate-change litigation. His interest in this case stems from a longstanding academic commitment to analyzing the intersection of law, economics, and energy policy, particularly as it relates to the national and global effects of fossil-fuel regulation. He has no personal or financial stake in the outcome of this litigation.

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<sup>1</sup> Pursuant to Supreme Court Rule 37.6, undersigned counsel states that no counsel for a party authored this brief in whole or in part, that no counsel for a party or party made a monetary contribution intended to fund the preparation or submission of the brief, and that no entity or person other than *amicus curiae* and his counsel made such a monetary contribution.

## **INTRODUCTION AND SUMMARY OF ARGUMENT**

This case presents a question of exceptional national importance: whether state and local governments may invoke state and local law to impose sweeping liability on fossil-fuel producers for global climate change. The claims advanced by Respondents—seeking to hold energy companies liable for the alleged cumulative, worldwide effects of the lawful production and sale of fossil fuels—are emblematic of a broader litigation trend that threatens to destabilize the national economy, undermine energy security, and erode federalism.

If permitted to proceed, these suits will expose producers to retroactive liability for decades of lawful conduct, chilling investment, curtailing supply, and driving up prices across sectors that depend on affordable and reliable energy. The economic consequences would be severe and far-reaching, affecting everything from transportation and agriculture to manufacturing and consumer goods.

What is more, the lawsuits risk exacerbating the very harms that they purport to redress. Because they would shift production to less regulated jurisdictions, they would likely increase global emissions—a phenomenon known as “emissions leakage”—while punishing domestic producers. Put differently, these cases would enable municipalities to externalize the costs of local adaptation onto non-resident taxpayers and businesses, distorting incentives and

paradoxically increasing the alleged harm from adverse weather events. Additionally, by shifting costs onto non-residents with no electoral voice in influencing adaptation decisions by plaintiff jurisdictions, such interstate cost-shifting also raises serious concerns about democratic accountability.

This Court has long served as a guardian of the national marketplace, ensuring that matters of interstate and international consequence are governed by a uniform rule of law. This Court should reverse the Supreme Court of Colorado's decision, taking the opportunity that this case presents to reaffirm the constitutional limits on state authority and to prevent an assortment of local judgments from dismantling the national energy framework.

### **ARGUMENT**

Respondents' claims in this case arise from the production and sale of fossil fuels—which have played a central role in the world's economies for decades—and seek to impose liability on fossil-fuel companies because of their production and sale of this vital resource. If successful, Respondents' claims—and similar claims that have been asserted in a number of climate-change lawsuits pending across the Nation—will have a significant, detrimental impact on the national and global economies, as well as the Nation's energy security.

**I. CLIMATE-CHANGE LAWSUITS WILL LIKELY SHRINK DOMESTIC FOSSIL-FUEL SUPPLY, INCREASE CONSUMER PRICES, AND JEOPARDIZE U.S. NATIONAL ENERGY SECURITY**

State-law claims seeking relief for injuries allegedly caused by the effects of interstate and international greenhouse-gas emissions implicate a uniquely federal interest that is governed by federal law, not the divergent tort law of the fifty States. Indeed, this Court’s decision in *American Electric Power, Inc. v. Connecticut*, 564 U.S. 410, 421–24 (2011), recognized the special federal character of greenhouse-gas emissions and the displacement of federal common law by the Clean Air Act. And the Second Circuit’s decision in *City of New York v. Chevron Corp.*, 993 F.3d 81, 98–100 (2d Cir. 2021), correctly held that displacement does not revive state-law claims by artful relabeling of emissions injuries as product, marketing, or upstream claims. The uniquely federal interest implicated by these state-law claims is confirmed by the fact that, if successful, these claims would have a significant, detrimental impact on domestic fossil-fuel supply, resulting in increased consumer prices and jeopardizing the Nation’s energy security.

This case is one of many lawsuits pending throughout the Nation that seek to impose liability on certain members of the fossil-fuel industry related to greenhouse-gas (“GHG”) emissions under various common law and/or statutory theories of liability.

Some such suits have alleged that fossil-fuel producers' GHG emissions constitute a public nuisance (*see, e.g., City of Oakland v. BP PLC*, 969 F.3d 895 (9th Cir. 2020); *Delaware v. BP Am. Inc.*, No. N20C-09-097 (Del. Super. Ct.)), while others allege that fossil-fuel producers' failure to warn consumers about the potential harms of GHG emissions constituted negligence (*see, e.g., Minnesota v. Am. Petroleum Inst.*, No. 62-CV-20-3837 (Minn. Dist. Ct.)). But regardless of the specific claims asserted, each lawsuit seeks to impose liability for the same alleged harms: an increase in GHG emissions and alleged resulting harm to the climate.

The City of Boulder, Colorado, for example, seeks monetary damages for past and expected future costs allegedly incurred to analyze, evaluate, mitigate, and abate climate change. *See* J.A. 1–140. According to Boulder, the “impacts” of climate change include virtually every extreme weather event that one could imagine, ranging from wildfires and droughts to floods, some of which (the City does not specify) have caused physical damage to Boulder's buildings and roads. *See id.*

Although the City of Boulder plaintiffs have not set forth any particular sum that they seek to collect, a recent study estimates that by 2040, municipalities in Pennsylvania will spend about \$1 billion per year adapting to the various impacts of climate change.<sup>2</sup>

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<sup>2</sup> *Pennsylvania's Looming Climate Cost Crisis: The Rising*

According to this study, by 2040 the average climate-change adaptation cost per capita in Pennsylvania municipalities will be \$4,930.<sup>3</sup> This does not include the cost of adapting to wildfire impact,<sup>4</sup> a serious natural hazard in areas of the West. *See* J.A. 8, 41, 46. Rounding up the 2040 Pennsylvania per capita figure to \$5,000, to account at least somewhat for wildfire adaptation, and multiplying by the current U.S. population, if all U.S. municipalities, counties, or states sought to recover for the same costs, the aggregate *annual* liability imposed on fossil-fuel defendants would be \$1.675 *trillion*.

By contrast, according to the U.S. Energy Information Administration, the total value of domestic U.S. oil production in 2024 was in the range of \$300 billion.<sup>5</sup> Thus, were such suits allowed to proceed, the annual liability imposition could reach 5 times the value of aggregate U.S. domestic oil production. It is therefore not an exaggeration to say that the climate lawsuits pose an existential threat to U.S. domestic oil production.

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*Price to Protect Communities from Extreme Heat, Precipitation, and Sea Level Rise*, Ctr. for Climate Integrity, at 4 (July 2023), <https://perma.cc/CFZ4-V3A5>.

<sup>3</sup> *See id.* at 7.

<sup>4</sup> *See id.* at 5.

<sup>5</sup> *See* Naser Ameen, *U.S. crude oil production rose by 2% in 2024*, Energy Info. Admin. (Apr. 16, 2025), <https://perma.cc/TT54-UL86>.

**A. Retroactive Climate-Change Liability Will Reduce Domestic Fossil Fuel Supply and Increase U.S. Retail Prices.**

Even if the climate lawsuits result in aggregate damages awards that do not exceed the value of U.S. domestic oil production, the retroactive liability and damages threatened by these cases are likely to have a significant, detrimental impact on the national economy by causing a reduction in domestic fossil fuel production. Massive retroactive liability is precisely what the state and local climate lawsuits threaten. One basis that has been discussed for determining a particular fossil-fuel company's share of any liability is that company's past production—*i.e.*, its aggregate emissions over the past several decades.<sup>6</sup>

Imposing a scheme of retroactive joint liability via litigation is functionally equivalent to imposing a fine for energy companies' past fossil-fuel production. Proponents of such fines frequently argue that such fines will have no impact on oil production and prices.<sup>7</sup> It is true that, as a matter of basic economics,

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<sup>6</sup> *E.g.*, *Rhode Island v. Chevron Corp.*, No. PC-2018-4716, Compl. ¶¶ 96–98 (R.I. Super. Ct. Jul. 2, 2018) (alleging that emissions “attributable to Defendants” can be calculated “by quantifying the amount and type of fossil fuels each Defendant extracted and placed into the stream of commerce,” multiplied by the fuel's carbon factor).

<sup>7</sup> *See, e.g.*, Peter H. Howard and Minhong Xu, *Enacting the “Polluter Pays” Principle: New York's Climate Change Superfund*

fixed costs—costs that do not vary with output—typically should not affect future pricing decisions, because a company cannot change what happened in the past and is always working to optimize its pricing decisions in the present.<sup>8</sup> But this standard assertion is inapt with respect to the sort of massive retroactive liability that suits such as Boulder’s would likely impose.

As Professor Johnston has shown in recently published peer-reviewed work, multi-state retroactive damages, fines or other monetary awards relating to fossil-fuel production or corresponding GHG emissions—whether through statute or litigation—will likely have two effects: (1) they will bankrupt many fossil-fuel producers, and (2) they will cause those producers who remain viable to cut back drastically on exploration and drilling.<sup>9</sup>

To understand the first effect, consider an existing oil well. The value of that well is determined by the profits that it will generate in the future, minus the costs it carries. If retroactive liability is imposed on

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*Act and Its Impact on Gasoline Prices*, N.Y.U. Inst. Pol’y Integrity, at 1, 7, 13 (Nov. 22, 2022), <https://perma.cc/5NUN-QHRD>.

<sup>8</sup> See Gary S. Becker, *Economic Theory* 79–83 (2d ed. 2007) (explaining that whether a cost is fixed depends upon the time horizon relevant to the choice under consideration).

<sup>9</sup> Jason S. Johnston, *Fossil Fuel Production Under Liability for Climate Change*, 32 Int’l J. Econ. Bus. 411, 413–14, 420–21 (2025).

the owner of an oil well for alleged harms relating to GHG emissions, every oil well will, in effect, be charged for its past production activities. The longer a well has been in production, the bigger its accumulated liability cost, and the shorter its remaining productive lifetime and future value.<sup>10</sup> Because retroactive liability increases while the present value of future production declines as a well ages, for every well, retroactive liability will eventually exceed the value of future production. Thus, under retroactive liability, *every* oil and gas well, even those producing large net positive social value in every period, eventually becomes a negative net value asset. In other words, every business that consists of owning and operating oil or natural gas wells will eventually face retroactive liability that exceeds the present value of its assets. Thus, retroactive liability will eventually cause the firms to become insolvent.<sup>11</sup> In bankruptcy, retroactive liability claimants would become the owners of the firms, cancelling out all existing equity holders.<sup>12</sup>

The second effect of retroactive liability will be delay in drilling and production. Production from an

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<sup>10</sup> *Id.* at 413–16 (explaining that the “oldest, longest producing fields are the first to become negative net present value assets due to the imposition of cumulative liability”).

<sup>11</sup> Note that it is possible that production from such negative net value assets would still be economic. This would be true if the price per barrel exceeds baseline marginal cost plus the continuing liability charge per barrel. *See id.* at 412–13, 415–16.

<sup>12</sup> *Id.* at 413, 427.

oil or gas well is determined by the geology of the field and the type of well that has been drilled (horizontal versus conventional).<sup>13</sup> Once an oil or gas well is drilled, production from that well decreases with declining well pressure.<sup>14</sup> Supply therefore cannot be varied up and down simply by incurring the marginal cost of supply change, as is true in the production of typical goods. Drilling a new well is a commitment involving substantial sunk cost, and in deciding when to drill, producers trade off the benefit of waiting (potential technological change that reduces the cost or increases the productivity of drilling<sup>15</sup>) against the cost of waiting (foregone revenue from sales). But uncertainty about retroactive liability alone reduces

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<sup>13</sup> See Norman J. Hyne, *Nontechnical Guide to Petroleum Geology, Exploration, Drilling, and Production*, at 423–442 (3d ed. 2012).

<sup>14</sup> Ryan Kellogg and Mar Reguant, *Energy and environmental markets, industrial organization, and regulation*, 5 *Handbook of Industrial Organization* 615, 626–27 (2021) (explaining that “the production rate from drilled wells [is] subject to a capacity constraint that is proportional to the remaining reserves available to the well” because of declining well pressure).

<sup>15</sup> In the U.S., since 2022, technological advances, such as electronic hydraulic fracturing technologies, automated drilling processes, and artificial intelligence, have increased the productivity of drilling rigs and allowed U.S. production to increase the number of wells drilled even as the number of drilling operations (rigs) has decreased. See Merek Roman, *Improved efficiency is enabling record U.S. crude oil production from fewer rigs*, Energy Info. Admin. (Dec. 23, 2024) <https://perma.cc/RC2D-FKJ3>.

the incentive to drill new wells,<sup>16</sup> and lowers the present owner's expected future net revenue from a newly drilled well. Since the primary cost of delaying new drilling is deferring receipt of net revenue from newly drilled wells, the reduction in expected future profits due to potential climate-change liability lowers the cost of waiting to drill and tilts the owner's cost-benefit calculus in favor of such delay. Delays in drilling are equivalent to reductions in future supply.<sup>17</sup>

This effect of uncertainty over potential future retroactive liability is even greater where future damages are so high that a loss of ownership is expected. When the imposition of retroactive liability is likely to cause insolvency and thus lead to a transfer of ownership through bankruptcy to various claimants, present owners' expected future revenue fall all the way to zero. With this very real possibility, the cost of delaying drilling is even lower; correspondingly, the risk of incurring the sunk cost of drilling is even higher.

These supply-side impacts of retroactive GHG liability will surely, among other things, cause a

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<sup>16</sup> Cf. Ryan Kellogg, *The Effect of Uncertainty on Investment: Evidence from Texas Oil Drilling*, 104 Am. Econ. Rev. 1698, 1699 (2014) (finding that "when the expected volatility of the future price of oil increases, drilling activity decreases").

<sup>17</sup> See Johnston, *supra* n.9, at 413.

direct increase in fossil-fuel prices and in the overall rate of consumer price inflation.

This may seem implausible. Some may surmise that because oil and natural gas are produced and refined across the world and traded and sold on international markets, even if retroactive GHG liability substantially reduced U.S. fossil fuel supply it would not affect fossil fuel prices paid by U.S. consumers and firms. This supposition vastly underestimates the global significance of U.S. fossil fuel production.

Economists have traditionally described the global oil market as one in which a dominant cartel, OPEC (since 2016, OPEC+), led by a dominant low-cost producer, Saudi Arabia, manipulates production to control global oil prices.<sup>18</sup> Over the past decade, however, OPEC+'s ability to control prices has been weakened by an enormous increase in U.S. production. The vast majority of the increase in U.S. oil production since 2015 has come from fracking, with the share of U.S. oil production from fracking increasing to account for two-thirds of total U.S. oil production by 2022.<sup>19</sup> As drilling and fracking

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<sup>18</sup> See Rolf Golombeck et al., *OPEC's market power: An empirical dominant firm model for the oil market*, 70 *Energy Econ.* 98, 111–12 (2018) (finding that "OPEC exerted substantial market power between 1986 and 2016," and noting that Saudi Arabia has increased oil supply to counteract lower production).

<sup>19</sup> *How much oil is produced in the US?*, USA Facts (Aug. 21, 2023), <https://perma.cc/3WYJ-WXZB>.

technologies have improved, costs have fallen and U.S. production has soared.<sup>20</sup> That revolution has made the U.S. a leading producer and even exporter of oil and liquid natural gas.<sup>21</sup> As shown in Figure 1 below, even before the 1970s, the U.S. was never a significant exporter of oil. With the advent of fracking, that changed dramatically, as U.S. oil exports increased from a mere 1 million barrels exported in January 2010 to about 121 million barrels in January 2026.<sup>22</sup>

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<sup>20</sup> See W.D. Walls and Xiaoli Zheng, *Fracking and Structural Shifts in Oil Supply*, 43 *Energy J.* 1, 30–31 (2022).

<sup>21</sup> See *The United States exported 30% of the energy it produced in 2024*, Energy Info. Admin. (Aug. 12, 2025), <https://perma.cc/RYH8-NY43>.

<sup>22</sup> *U.S. Exports of Crude Oil*, Energy Info. Admin. (Apr. 30, 2026), <https://perma.cc/6USB-QGTT>.

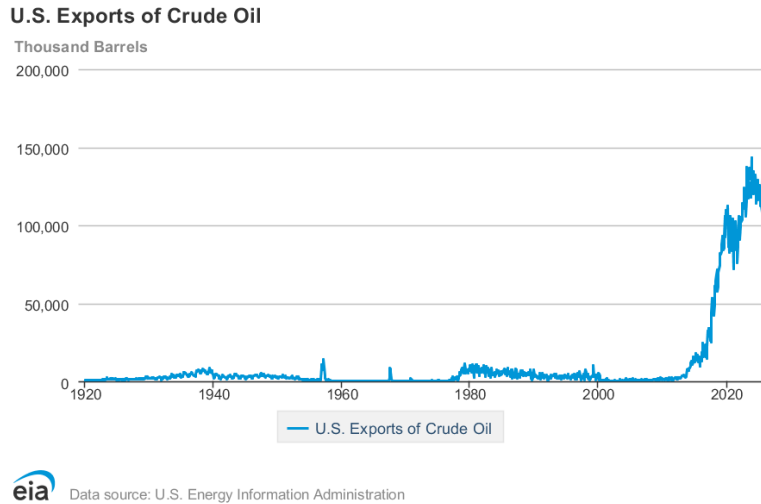


Figure 1. U.S. Crude Oil Exports<sup>23</sup>

Not only has the fracking boom accounted for a huge share of the increase in U.S. production, it has also created a new industry segment that is enormously responsive to attempts by OPEC+ to raise global prices.<sup>24</sup> In Texas, for example, oil supply

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<sup>23</sup> *Id.*

<sup>24</sup> Walls and Zheng, *supra* n.20, at 31 (explaining that U.S. oil producers have become more responsive to price increases since the shale oil boom and the “changed supply relation for U.S. oil producers . . . is consistent with the ineffectiveness of OPEC policies to increase and stabilize the world price of crude oil”).

became more than three times more responsive to price increases after the fracking boom.<sup>25</sup>

When OPEC+ raises prices, U.S. shale producers quickly drill new wells and raise production, forcing prices back down.<sup>26</sup> The effect is large, with one recent study finding that the increase in shale oil production accompanying the so-called shale revolution will ultimately lower oil prices by 48 percent once the shale oil transition is complete.<sup>27</sup> Many Permian Basin shale oil wells are owned by oil companies who are defendants in suits such as Boulder's.<sup>28</sup> By causing the shutdown of wells owned by these producers and by the postponement of supply increase brought about by drilling new wells, the retroactive liability imposed by climate-change lawsuits such as Boulder's would eliminate what has become an effective market check on OPEC+'s ability to raise oil prices.

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<sup>25</sup> *Id.* at 8–13.

<sup>26</sup> See Walls and Zheng, *supra* n.20, at 31.

<sup>27</sup> Nathan S. Balke et al., *The Shale Revolution and the Dynamics of the Oil Market*, 134 *Econ. J.* 2252, 2259 (2024).

<sup>28</sup> See *Top Permian Oil and Gas Producers: Five-Year Production*, Rextag (Apr. 29, 2024) (listing ConocoPhillips, Chevron, Devon Energy, Exxon, and Occidental Petroleum as top-ten oil and gas producers in the Permian Basin), <https://perma.cc/2Z3Z-MYS2>; see, e.g., *Delaware v. BP Am. Inc.*, No. N20C-09-097, First Amended Compl., at 1–2 (Del. Super. Ct. Jul. 28, 2025) (naming Chevron, ConocoPhillips, Exxon Mobil, Occidental Petroleum, and Devon Energy as defendants).

**B. The Impact of Retroactive Liability for Fossil-Fuel Production on Oil and Natural Gas Supply and Prices Will Reverberate Across the U.S. Economy in Higher Prices for Many Goods and Services.**

Another significant economic consequence of imposing retroactive liability for GHG emissions and fossil-fuel production is that prices for many goods and services will increase substantially.

Oil is essential to interstate and international transportation. In 2023, transportation alone contributed \$1.8 trillion to the U.S. gross domestic product (about 6.5 percent).<sup>29</sup> When diesel, aviation fuel, or oil prices increase, those price increases ripple across the entire economy.<sup>30</sup> Recent work finds that gasoline price shocks in particular explain 54 percent of headline CPI inflation.<sup>31</sup>

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<sup>29</sup> *Transportation Economic Trends: Contribution of Transportation Services to the Economy and the Transportation Satellite Accounts*, U.S. Dep't of Transp., Bureau Transp. Stat., <https://perma.cc/3AGF-MHRT>.

<sup>30</sup> Kangni R. Kpodar and Boya Liu, *The Distributional Implications of the Impact of Fuel Price Increases on Inflation*, Int'l Monetary Fund, at 13–16 (Nov. 12, 2021) (estimating the pass-through of fuel price increases to consumer price inflation), <https://perma.cc/4T45-9JDD>.

<sup>31</sup> Lutz Kilian and Xiaoqing Zhou, *A broader perspective on the inflationary effects of energy price shocks*, 125 *Energy Economics*, at 5–6 (Sept. 2023).

Likewise, fossil fuels are estimated to provide 93 percent of the energy used in the American food system,<sup>32</sup> both directly—as fuel for the machinery used in crop planting, harvesting, and irrigation—and indirectly—by providing the source of energy for the production of fertilizers, pesticides, and herbicides. Oil prices and agricultural commodity prices are closely related in the medium- to long-run.<sup>33</sup>

The process of refining crude oil also generates a number of petrochemical feedstocks such as naphtha (from crude oil) and ethane (from natural gas) that are processed into a large variety of products,<sup>34</sup> including plastics (such as polyethylene, polypropylene, and polystyrene plastics used in bottles, bags, containers, toys, water pipes, packaging, etc.); nylon and polyester fibers for clothing, carpets, and upholstery; acrylic resins for

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<sup>32</sup> Patrick Canning et al., *The Role of Fossil Fuels in the U.S. Food System and the American Diet*, U.S.D.A., at 8–12, 21 (Jan. 2017), <https://perma.cc/CUV7-YRQ4>.

<sup>33</sup> While short-term price movements for agricultural commodities can be explained primarily by short-run shifts in supply and demand caused by factors such as growing-season weather, oil prices and agricultural-commodity prices are closely linked over longer periods. See Kevin M. Camp, *The relationship between crude oil prices and export prices of major agricultural commodities*, U.S. Bureau of Labor Statistics (April 2019), <https://perma.cc/FZ28-NX6D>.

<sup>34</sup> See, e.g., Kalen Goodluck, *10 Everyday Products Derived from Petroleum*, PBS SoCal (Apr. 27, 2019), <https://perma.cc/944M-P82H>.

dentures and various medical products; medical plastics used in things such as syringes, tubing, and bottles; resins used in drug production; and other derivatives used in food preservatives and flavor additives (such as vanillin, benzaldehyde, and paraffin wax for coating candy and fruits), cosmetics and fragrances (lipsticks, perfumes, makeup, aftershaves, and shampoos often containing paraffin wax and other derivatives), detergents, adhesives, rubbers, dyes, and paints.<sup>35</sup> As illustrated once again by market changes since 2022, an abrupt decrease in fossil-fuel supply causes not only an increase in fossil-fuel prices but also an increase in the general price level.<sup>36</sup>

Perhaps the most dangerous consequence of reductions in fossil fuel supply caused by retroactive liability is the impact of supply disruption on the cost and reliability of electricity. It is impossible to incorporate large amounts of electricity from wind and solar and still retain the reliability of electricity supply without heavy reliance on natural gas.<sup>37</sup> Across the globe, every jurisdiction that has become heavily reliant on wind and solar as sources of energy for electric power—from California to Germany—has

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<sup>35</sup> *See id.*

<sup>36</sup> Harun Alp et al., *Second-Round Effects of Oil Prices on Inflation in the Advanced Foreign Economies*, Bd. Governors Fed. Rsrv. Sys. (Dec. 15, 2023), <https://perma.cc/63MH-YATU>.

<sup>37</sup> *See, e.g., Natural Gas: The Backbone of Reliable Power*, Nw. Gas Ass'n (Apr. 9, 2025), <https://perma.cc/K83V-TN2A>.

also become completely reliant upon natural gas to provide power when the wind doesn't blow and the sun doesn't shine.<sup>38</sup> Natural gas supply restrictions will threaten the reliability of electricity supply in such places, and natural gas price increases will be passed on directly to electric utility customers.

In the aftermath of Congressional investigations into several catastrophic electric grid blackouts during the 1960s, the large investor-owned U.S. electric utilities created the North American Electric Reliability Corporation.<sup>39</sup> Today, the regional reliability councils created by this corporation ensure the reliability of the regionally interconnected U.S. electricity production and distribution system.<sup>40</sup> No single state or city could do this job. If allowed to impose retroactive liability on the U.S. fossil-fuel industry, individual states and cities would likely severely harm or even destroy the existing interstate system for U.S. electricity production and transmission, as well as other interstate U.S. industries.

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<sup>38</sup> See Jason S. Johnston, *Climate Rationality: From Bias to Balance* 149–85 (2021).

<sup>39</sup> *Id.* at 154–55.

<sup>40</sup> *Id.* at 155.

**C. Retroactive GHG Liability Will Significantly Reduce U.S. Energy Security, Making the U.S. Dependent on Foreign Fossil-Fuel Supply and Wiping out America's Energy Independence.**

Imposing retroactive liability on businesses for GHG emissions and fossil-fuel production will also make the United States more dependent on foreign fossil fuel, jeopardizing the Nation's energy independence.

State GHG regulations that are applied solely to in-state activities, such as retail gasoline taxes and the regulation of in-state production and refining, affect supply and prices within the state. Unlike federal gas taxes, which are borne roughly equally by consumers (who pay a higher price at the pump) and wholesalers (who get a lower wholesale price), state gasoline taxes are borne by in-state consumers, in the form of higher retail prices.<sup>41</sup>

The same is true of state command-and-control regulation. With the explicit goal of ending oil extraction in California, that state has promulgated regulations that impose large lump sum costs.<sup>42</sup> One

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<sup>41</sup> See Hayley Chouinard and Jeffrey M. Perloff, *Incidence of federal and state gasoline taxes*, 83 Econ. Letters 55 (2004).

<sup>42</sup> See *California Further Restricts Oil Production with Three New Bills*, Inst. Energy Rsch. (Oct. 3, 2024), <https://perma.cc/MH28-UEZW>.

California law, Cal. Pub. Res. Code § 25354.4, empowers the State Energy Resources Conservation and Development Commission to require refiners to maintain minimum inventories of refined fuels. Another California law, the California Global Warming Solutions Act of 2006,<sup>43</sup> empowers the State Air Resources Board to create a Low Carbon Fuel Standard (“LCFS”),<sup>44</sup> which then forces refineries to blend fuels and to buy credits if carbon targets are not met. *See Rocky Mt. Farmers Union v. Corey*, 730 F.3d 1070, 1080 (9th Cir. 2013) (explaining that the LCFS “established a declining annual cap on the average carbon intensity of California’s transportation-fuel market” and that “[c]redits may be used to offset deficits” in “carbon intensity”).

These laws are costly and have already caused reduction of fossil fuel production and refining in California. The cost of complying with California’s regulations was among the reasons for the closure of refineries in California—closures reducing that state’s refining capacity by 17.5 percent.<sup>45</sup>

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<sup>43</sup> Cal. Health & Safety Code, §§ 38500, *et seq.*

<sup>44</sup> Cal. Code Regs. tit. 17, §§ 95480, *et seq.*

<sup>45</sup> Josh Delfosse, *How to Navigate the Impact of Closing Oil Refineries in California*, Breakthrough (Oct. 28, 2025), <https://perma.cc/5J4S-M5XE>; Nicole Jao, *Valero to shut Benicia refinery due to tough regulatory environment, high costs*, Reuters (Apr. 24, 2025) (quoting Valero CEO’s statement about California’s policies “to move away from fossil fuels” and its

Despite passing so many laws imposing costs on the fossil fuel industry, California still consumes between 850,000 and 900,000 barrels of gasoline per day, and it imports between 20 and 40 percent of all its gasoline, diesel, and jet fuel.<sup>46</sup> California produces very little oil in-state, with total production falling over the last forty years from about 1 million barrels per day to only 250,000 barrels per day.<sup>47</sup> With vanishing refining capacity and very little in-state production but continuing heavy consumption, California imports the vast majority of its crude oil from outside the U.S., with Iraq as its single biggest supplier as of 2024.<sup>48</sup> Indeed, while only thirty years ago, California imported only 10 percent of its crude oil, since 2023, California has imported more than 60 percent of its oil from abroad.<sup>49</sup> As refiners have closed, California has become increasingly reliant on foreign refineries for its refined crude oil products. For example, in November 2025, OPIS reported that “over the last two years,” India—whose refineries process mostly Russian crude oil—supplied 6.56

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“stringent and difficult” regulatory environment), <https://perma.cc/AER4-BKM4>.

<sup>46</sup> Erick Parel, *California is within weeks of a shutdown*, Energy News Beat (Apr. 23, 2026), <https://perma.cc/A453-5A5R>.

<sup>47</sup> *California Field Production of Crude Oil*, Energy Info. Admin. (Apr. 30, 2026), <https://perma.cc/Q395-4KJD>.

<sup>48</sup> Philip MacFarlane, *Viewpoint: California Must Consider Emissions from Foreign Oil*, California Energy J. (Oct. 22, 2025), <https://perma.cc/H7C3-YHUR>.

<sup>49</sup> *Id.*

million barrels of gasoline to California.<sup>50</sup> Because there are no U.S. pipelines that bring gasoline to California, California gets its gasoline from foreign countries.<sup>51</sup>

California has thus pursued policies that have made it completely dependent upon imported fossil fuels and subject to the vicissitudes of international fossil fuel markets. The danger of this dependence has been made all too clear by the Iran war. With the closure of the Strait of Hormuz, California's short-run refined oil product supply is limited to that from refineries located primarily in South Korea, Singapore, India, and Japan.

As California teeters insecurely on the brink of energy shortages, the U.S. economy as a whole is highly energy secure. Since 2018, not only has the U.S. produced more crude oil than any other country in the world, but in reaching a national capacity of 13 million barrels per day in 2023, it achieved a production capacity that exceeds even that of Saudi Arabia.<sup>52</sup> Aside from a drop during COVID-era

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<sup>50</sup> Shaheer Naveed and Eric Weiser, *As Reliance on Imported Gasoline Rises, California Adapts to a 'New World'*, OPIS (Nov. 4, 2025), <https://perma.cc/ELH9-J4KM>.

<sup>51</sup> Capital & Main, *As prices climb, California imports more gasoline made from Russian oil*, Daily Kos (Apr. 22, 2026), <https://perma.cc/V4JG-BLNT>.

<sup>52</sup> Erik Kreil, *United States produces more crude oil than any country, ever*, Energy Info. Admin. (Mar. 11, 2024), <https://perma.cc/L7UT-TWHX>.

economic dislocations, U.S. crude oil production has generally steadily increased since 2013, and in 2025 set a new annual production record of 13.6 million barrels per day.<sup>53</sup> Since beginning to export liquified natural gas (LNG) in 2016, the U.S. has risen to become the world’s leading producer and exporter of LNG, exporting to 48 countries around the world, with Europe the leading importing region.<sup>54</sup> The U.S. exported about 12 billion cubic feet per day (Bcf/d) of LNG in 2024, and according to the Department of Energy, U.S. LNG exports will more than double, to 26 Bcf/d by the end of this decade.<sup>55</sup> As a result, the Nation’s LNG export capacity “is expected to . . . exceed the export capacity of the second largest LNG exporter, Qatar, by 40 percent.”<sup>56</sup>

The state climate lawsuits are part of a concerted effort to reverse this remarkable transformation in American fossil-fuel production. The goals and strategies of this type of group effort were set out at a “Workshop on Climate Accountability” held in

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<sup>53</sup> Naser Ameen, *U.S. crude oil production rose in 2025, setting new record*, Energy Info. Admin. (Mar. 31, 2026), <https://perma.cc/AMF5-UGHA>.

<sup>54</sup> *U.S. Liquefied Natural Gas (LNG) Exports Fact Sheet*, U.S. Dep’t of Energy (Mar. 2025), <https://perma.cc/6YJ7-HFHW>.

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

California in 2012.<sup>57</sup> According to the Report on that workshop, the model for litigation against the fossil fuel industry was earlier litigation against tobacco companies.<sup>58</sup> Workshop participants reached “nearly unanimous agreement on the importance of legal actions” to, among other things, “maintain[] pressure on the industry that could eventually lead to its support for legislative and regulatory responses to global warming.”<sup>59</sup> As one workshop participant explained, “[e]ven if your ultimate goal might be to shut down a company, you still might be wise to start out by asking for compensation . . . .”<sup>60</sup>

To be sure, public statements by state and municipal plaintiffs do not explicitly say that bankrupting or shutting down fossil fuel companies is the goal of climate suits, but publicly stated objectives make clear that ending the defendants’ fossil fuel production is the end goal. For example, California Governor Gavin Newsom’s office has put out statements that, by making oil companies pay for “the costs of their impacts,” California seeks to “protect the state against the harms that climate change will cause in years to come,” to “[p]rohibit oil companies

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<sup>57</sup> See Climate Accountability Institute and Union of Concerned Scientists, *Establishing accountability for climate change damages: Lessons from Tobacco Control* (June 14, 2012), <https://perma.cc/7F59-UHF5>.

<sup>58</sup> See *id.* at 7–10.

<sup>59</sup> *Id.* at 27.

<sup>60</sup> *Id.* at 13 (internal quotation marks omitted).

from engaging in further pollution,” and to “[l]evy financial penalties on Big Oil . . . .”<sup>61</sup> Since carbon dioxide is an inevitable by-product of oil production and refining, the only way to “prohibit” what California calls “pollution” is to end the defendants’ business activities.<sup>62</sup>

As explained earlier, the magnitude of potential liability in state climate lawsuits is easily large enough to push fossil-fuel company defendants into insolvency. Through bankruptcy proceedings, tort claimants would gain control of such companies. They could then exercise their control rights to either shut down such firms or use firm revenues to fund whatever public projects they wish. *See supra* pp. 8–11.

However, ending fossil fuel production and refining by major American firms could have catastrophic national consequences. About 20 percent of global oil and 15 percent of liquified natural gas passes through the Strait of Hormuz.<sup>63</sup> Its closure during the Iran war is generally believed to have effectively eliminated all LNG supply through the

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<sup>61</sup> Governor Gavin Newsom, *People of the State of California v. Big Oil* (Sept. 16, 2023), <https://perma.cc/ZQ4U-4UPU>.

<sup>62</sup> *See id.*

<sup>63</sup> Ayana Isles, *Why the Strait of Hormuz Is More Than an Energy Crisis*, Georgia Tech News Center (Apr. 3, 2026), <https://perma.cc/LME4-RQV9>; *Five key impacts of LNG supply disruption via Hormuz*, Timera Energy (Mar. 2, 2026), <https://perma.cc/7XJ8-USPP>.

Strait.<sup>64</sup> The reduction of LNG global supply had significant effects, causing increases in prices globally<sup>65</sup> and economic dislocation.

For example, Southeast Asia was forced to ration scarce energy, with the Philippines imposing a four-day work week for certain government units and ordering that air conditioners be set at no lower than 24 degrees Celsius (approximately 75 degrees Fahrenheit) for government offices,<sup>66</sup> and Thailand banning fuel exports to conserve its reserves.<sup>67</sup> India, the second-largest LNG importer, cushioned the blow caused by LNG shortages to households, but LNG shortages were already affecting restaurants and hotels there.<sup>68</sup> In lower-income African countries, where “food accounts for about 36 per cent of consumption on average,” the impact was severe.<sup>69</sup>

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<sup>64</sup> See *Five key impacts of LNG supply disruption via Hormuz*, *supra* n.63.

<sup>65</sup> *Id.*

<sup>66</sup> Office of the President of the Philippines, *President Marcos orders temporary 4-day workweek in some gov't agencies* (Mar. 6, 2026), <https://perma.cc/6NQS-2H3Q>.

<sup>67</sup> Jonathan Yee, *Thailand bans fuel exports amid Mideast crisis*, ICIS (Mar. 4, 2026), <https://perma.cc/43GV-A5JM>.

<sup>68</sup> Anton L. Delgado and Aniruddha Ghosal, *Iran war pushes countries into energy triage as they conserve power and curb soaring prices*, Associated Press (Mar. 17, 2026), <https://perma.cc/BKN2-R5QQ>.

<sup>69</sup> Mohamed K. Omer, *Iran War Exposes Africa's Vulnerability to Global Energy Shocks*, *The Pan African Review* (Apr. 17, 2026), <https://perma.cc/GM5X-AW5B>.

Transportation costs in Africa make up a high fraction of food costs, so when fuel prices increase transportation costs, food prices go up disproportionately.<sup>70</sup> With very limited refining capacity, higher prices and shortages due to the Iran war hit East Africa especially hard.<sup>71</sup> Ethiopia's Prime Minister Abiy Ahmed "advised citizens to use fuel sparingly and prioritiz[e] it for essential purposes," and the government instructed all public and state-owned enterprises to place non-essential employees on annual leave "in an attempt to mitigate the fuel shortage suffocating transportation across the country."<sup>72</sup>

The Iran war has driven these energy-insecure countries back to the days of the 1970s energy crisis. In the United States, by contrast, while increases in the forward price of oil have increased gasoline prices at the pump, there are no physical shortages, and thus no need to ration or limit energy use. And natural gas for electricity production remains so abundant that natural gas prices have fallen to rock-bottom levels.<sup>73</sup> Were the climate-change lawsuits to

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<sup>70</sup> See *id.* (noting that more expensive "fuel makes shipping, generating electricity, driving tractors and powering factories more expensive").

<sup>71</sup> See *id.*

<sup>72</sup> *Id.*

<sup>73</sup> In the Permian Basin, because more gas is being produced than can be transported through existing pipelines, the WAHA hub Midland area spot price reached a low of minus \$9.52 per

achieve their ultimate aim, the U.S. could be put in the position of countries who are completely dependent upon imported oil and natural gas.

## II. CLIMATE-CHANGE LAWSUITS WILL INCREASE THE SOCIAL COST OF CLIMATE CHANGE, FURTHER BURDENING THE NATIONAL AND GLOBAL ECONOMIES

Boulder maintains it is not regulating the emissions of out-of-state fossil fuel production and refining but is instead only seeking compensation for the in-state harms caused by climate change. J.A. 139. But *ex post* damages inevitably have a significant, prospective effect in regulating future conduct. The attempt by Boulder and similar state and local governments to hold defendants liable for the costs of global climate change is inherently an attempt to change how defendants operate.

Perversely, in punishing defendant fossil-fuel producers and refiners, state and local climate-change lawsuits will quite directly harm the defendant companies' employees and shareholders, as

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million British thermal units (MMBtu) on April 16, 2026. See John Abeln, *New Low Reached for Permian Natural Gas Prices*, RBN Energy LLC (Apr. 16, 2026), <https://perma.cc/Y2FR-S68D>. The Henry Hub one-month forward price for US natural gas entered April at around \$3/MMBtu, and is predicted to average less than \$4 for all of 2026. See *US Natural Gas Prices in 2026: Henry Hub Outlook, LNG Export Boom, and What It Means for Global Markets*, EnergyPrices.Net (Apr. 2, 2026), <https://perma.cc/APX8-ZW3U>.

well as the consumers of fossil-fuel-based products<sup>74</sup>—many of whom reside outside the plaintiff states and municipalities. The lawsuits would force non-residents of plaintiff jurisdictions to fund all sorts of public projects undertaken by those jurisdictions. They thus are inimical to the system of democratic federalism enshrined in the Constitution of the United States.

Not only are cities such as Boulder attempting to foist the cost of public projects on non-voting non-residents, but their lawsuits also ignore their own contribution to whatever costs they may incur due to changing climate.<sup>75</sup> Fossil-fuel companies produce and refine only to meet market demand. They do not design or produce the autos and other internal-combustion-fired products that burn fossil fuels. They

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<sup>74</sup> Recent work has shown that between 25 and 75 percent of an increase in firm energy costs are passed through in the form of higher prices to consumers, with firms (which include shareholders and employees) bearing the remainder. See Sharat Ganapati et al., *Energy Cost Pass-Through in US Manufacturing: Estimates and Implications for Carbon Taxes*, 12 Am. Econ. J.: Applied Econ. 303 (2020).

<sup>75</sup> According to the Australian Institute for Disaster Resilience, local government land-use planning that considers natural hazards, including decisions such as prohibiting development in known hazard areas and preserving open space, is the “single most important mitigation measure” for minimizing future disaster losses due to weather events. See *Land Use Planning for Disaster Resilient Communities*, Austl. Inst. Disaster Resilience, Dep’t of Home Aff., at vii (1st ed. 2020), <https://perma.cc/K74T-56VG>.

do not make decisions about how to generate electricity. They have nothing to do with construction and design decisions that determine cities' vulnerability to weather events. Climate-change lawsuits essentially exclude every entity responsible for determining the demand for fossil fuels and the costs of any climate change attributable to GHG emissions.

In addition, the climate-change lawsuits exclude most past and present fossil-fuel producers—specifically, OPEC+ members. In fact, the major OPEC+ fossil-fuel producers are state-owned, with very few exceptions.<sup>76</sup> If successful, climate-change lawsuits will cut or eliminate OPEC+'s competition, likely increasing output by fossil-fuel producers in OPEC+.<sup>77</sup> In this way, climate-change lawsuits will likely boost the economies of OPEC+ members such as Russia, Iran, and Venezuela. Few OPEC+ countries have GHG reduction policies with teeth.<sup>78</sup> Thus shifting production from the firms targeted by climate-change litigation to OPEC+ producers may well generate a net increase in global GHG emissions,

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<sup>76</sup> See Abigail Gerry, *Inside the Oil Alliance: OPEC vs. OPEC+*, Mansfield Energy (Apr. 14, 2025), <https://perma.cc/WJB8-NYNX>.

<sup>77</sup> See Johnston, *supra* n.9, at 422–24.

<sup>78</sup> See A. Damodaran and Shamta Thakkar, *A Preliminary Survey of the Climate Policy of OPEC and OPEC+ Countries - Discussion Paper* (Dec. 10, 2020), <https://perma.cc/S9L9-VR23>.

a well-known phenomenon called “emissions leakage.”<sup>79</sup>

Defenders of climate-change litigation may argue that what matters is ensuring that the costs of adapting to changing climate are borne by some responsible entity, and that even if many such responsible entities carry no share of the burden, what matters is funding climate adaptation by whatever means necessary. Beyond the fundamental unfairness of such an argument, the argument ignores the destructive incentives created by these lawsuits’ liability-sharing scheme. From an economic point of view, optimal climate adaptation occurs when the actor that benefits from adaptation internalizes the costs of adaptation. If the actor choosing adaptation expenditures bears only a fraction of the costs, and is compensated for damages it has incurred because it has failed to optimally adapt, then it will not have the correct economic incentive and may either spend too little<sup>80</sup> or too wastefully on

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<sup>79</sup> For a succinct but accurate definition, see *Emissions Leakage*, Sustainability Directory (Apr. 7, 2025), <https://perma.cc/DS2J-F97Z>.

<sup>80</sup> A vivid example of this problem is provided by the empirical analysis by Francis Annan and Wolfram Schlenker, *Federal Crop Insurance and the Disincentive to Adapt to Extreme Heat*, 105 Am. Econ. Rev. 262, 264–66 (2015), who find that federal crop insurance subsidies have cut the incentives of U.S. corn and soybean farmers to adapt to extreme heat.

adaptation.<sup>81</sup> The climate lawsuits create precisely such perverse incentives: they foist the cost of adaptation on a small set of fossil-fuel producers and refiners who have no control over plaintiffs' climate adaptation choices, while making those choices cost-free for the plaintiffs.

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As illustrated above, this case and the other climate-change lawsuits pending throughout the Nation may have a significant, detrimental impact on the U.S. economy as well as on this Nation's economic security. Specifically, state-law claims like those asserted by Boulder, seeking relief for injuries allegedly caused by the effects of GHG emissions on the global climate, directly threaten the interstate and global economies, as well as the Nation's energy independence. To allow climate-change lawsuits such as Boulder's to proceed is to risk the economic health and national security of the United States, gambling that these cases will not begin a cascade of judgments that lead to the contraction of fossil-fuel supply and price increases across the entire economy.

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<sup>81</sup> William F. Shughart II, *Disaster Relief as Bad Public Policy*, 15 *Indep. Rev.* 519, 521, 529–531 (2011) (explicating harmful effects of disaster-relief programs, including incentivizing continued overdevelopment of disaster-prone areas), <https://perma.cc/9AXP-97NS>.

## CONCLUSION

This Court should reverse the decision of the Supreme Court of Colorado.

Respectfully submitted,

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May 21, 2026