Electric Cars in Coal Country: Why Kentucky Must Approach Gas Tax Legislation Carefully

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Without an increase in federal and state gas taxes, vital infrastructure and maintenance projects may no longer be viable in the United States.¹ Since 1993, the tax rate has remained the same, but it has lost value because the federal gas tax has been unable to keep up with inflation.² Furthermore, as cars and trucks become more efficient, drivers fill up less, further diminishing infrastructure coffers.³ Electric vehicles, while not yet mainstream, are experiencing increased sales and are predicted to outpace conventional auto sales by 2038, further complicating the effectiveness of today's gas taxes.⁴ Facing the reality of an underfunded Highway Trust Fund, President Trump advocated for raising the federal gas tax by twenty-five cents per gallon.⁵ Kentucky's House Bill 609 ("HB 609"), which aims to increase the gas tax and implement fees on hybrid and electric cars, fails to account for Kentucky's unique status as a coal state.⁶

While it remains unknown if the federal government will raise taxes on gasoline, some states have already enacted increases to shore up much-needed funds. Since 2013, thirty-one

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¹ Ashley Halsey III, *Gas tax increase is debated after White House turns to Congress for infrastructure help*, WASH. POST (Mar. 7, 2018, 6:00 PM), https://www.washingtonpost.com/local/trafficandcommuting/gas-tax-increase-is-debated-after-white-house-turns-to-congress-for-infrastructure-help/2018/03/07/b2af6bd2-2235-11e8-badd-7c9f29a55815_story.html?noredirect=on [https://perma.cc/UEK6-H55T].

² *Id.*

³ Justin Fox, Why Gas Taxes Aren't Paying the Bills Anymore, BLOOMBERG: BLOOMBERG OPINION (Feb. 15, 2018, 2:46 PM),

https://www.bloomberg.com/opinion/articles/2018-02-15/gas-taxes-aren-t-paying-the-bills-for-roads-anymore~[https://perma.cc/S7J8-ADL4].

⁴ *Id.*

 $^{^5}$ Lauren Gardner et al., Trump endorses 25-cent gas tax hike, lawmakers say, POLITICO (Feb. 14, 2018, 3:44 PM) https://www.politico.com/story/2018/02/14/trump-gas-tax-409647 [https://perma.cc/48EW-QQC3].

⁶ Ky. H.B. 609, 2018 Gen. Assemb., Reg. Sess. (Ky. 2018).

⁷ See Recent Legislative Actions Likely to Change Gas Taxes, NAT'L CONF. OF STATE LEGISLATURES (Aug. 23, 2019) http://www.ncsl.org/research/transportation/2013-

states increased their gas tax.⁸ Kentucky, however, was not one of those thirty-one states⁹ and instead chose to amend its gas tax laws in 2015 to prevent further losses in revenue.¹⁰ The legislature minimized the effect of falling gas prices by changing the law to hold taxes to a minimum rate of 24.6 cents per gallon.¹¹

Preventing a loss of revenue was not enough to fund the state's infrastructure needs. In February 2018, the Kentucky legislature introduced HB 609, a bill aimed at increasing the gas tax by ten cents a gallon, as well as implementing higher annual fees on hybrid and electric cars, to combat Kentucky's shrinking infrastructure fund. Kentucky has more than one billion dollars in overdue infrastructure projects and is in dire need of infrastructure funding. With bipartisan support, HB 609 may be the quickest way to implement changes that will affect Kentucky's bottom line.

Raising the gas tax appears to be a guaranteed way to raise money for the state, and by raising the minimum gas tax collected, Kentucky stands to benefit from increased gasoline prices. However, raising taxes does not account for other factors that could ultimately result in less revenue for the state. Studies show that when gas prices are high, Americans tend to drive less. ¹⁵ Consumers also gravitate towards more fuel-efficient

and -2014-legislative-actions-likely-to-change-gas-taxes.aspx [https://perma.cc/DQ5E5HXL].

⁸ *Id.*

⁹ See id.

¹⁰ H.B. 299, 2015 Gen. Assemb., Reg. Sess. (Ky. 2015).

¹¹ Justin Fox, Why Gas Taxes Aren't Paying the Bills Anymore, Bloomberg (Feb. 15, 2018, 2:46 PM), https://www.bloomberg.com/opinion/articles/2018-02-15/gas-taxes-aren-t-paying-the-bills-for-roads-anymore [https://perma.cc/S7J8-ADL4].

 $^{^{12}}$ Adam Beam, Bipartisan bill would boost Kentucky's gas tax by 10 cents, ASSOCIATED PRESS (Feb. 27, 2018),

 $https://apnews.com/8dd93777b4ee4578939a26e92a9a982d/Bipartisan-bill-would-boost-Kentucky's-gas-tax-by-10-cents [https://perma.cc/7YMY-VKTA]; \\ see also Ky. H.B. 609.$

¹³ *Id.*

¹⁴ See id.

¹⁵ Jeffrey M. Jones, *High Gas Prices Affecting Many Americans' Driving and Travel Plans*, Gallup News (June 20, 2000), https://news.gallup.com/poll/2806/high-gas-prices-affecting-many-americans-driving-travel-plans.aspx [https://perma.cc/E8HL-ZBJD]; see also Lev Borodovsky, *The Daily Shot: Americans Are Driving Less as Higher Gas Prices Sting*, Wall St. J. (July 26, 2018, 2:48 AM),

https://blogs.wsj.com/dailyshot/2018/07/26/the-daily-shot-americans-are-driving-less-as-higher-gas-prices-sting/ [https://perma.cc/9D4P-B6SJ].

vehicles when prices spike.¹⁶ While Kentucky would collect more money per gallon with higher gas prices, there is no guarantee that the increased tax would cover the downturn in driving or the reduced fuel consumption of fuel-efficient cars.

Due to the increasing popularity of both electric and fuel-efficient cars, policy experts have begun to encourage the adoption of usage taxes.¹⁷ A usage tax would not remain tied to the price of gasoline, but rather, is determined by the number of miles a driver travels.¹⁸ While this approach would ensure that hybrid and electric car drivers pay their fair share towards the roads they use, legislation remains vulnerable to fluctuating gasoline prices until the majority of vehicles rely on electric power. If implemented today, mileage taxes could cause drivers to travel less, mirroring the issue facing gasoline taxes as prices rise. Until gas prices are unaffected by constituents' driving habits, legislators must find other solutions.

Increased demand for electric cars has led state legislators to impose higher registration fees on electric and hybrid vehicles. Like the mileage tax mentioned previously, registration fees ensure that drivers of electric cars contribute to infrastructure costs even though they use a reduced amount of gas (or none at all in the case of electric cars). While pragmatic, this solution is also problematic; higher registration fees or annual fees could discourage the purchase of these fuel-efficient cars, and in Kentucky, where coal powers the electric grid, this situation would be a symbolic rebuke of the state's pro-coal mantra.

Although the coal industry has declined when compared to natural gas over the past few years, it is still an attractive field

¹⁶ Jason Unrau, *The Correlation Between Fuel Prices and Auto Sales*, CBT AUTOMOTIVE NETWORK (May 17, 2018), https://www.cbtnews.com/the-correlation-betweenfuel-prices-and-auto-sales [https://perma.cc/L2SZ-R58X].

¹⁷ Brian A. Weatherford, Distributional Implications of Replacing the Federal Fuel Tax with per Mile User Charges, 2221 J. OF THE TRANSP. RES. BOARD 19, 19 (2011). ¹⁸ See id.

¹⁹ Jeff Plungis, *More States Hitting Electric Vehicle Owners With High Fees, a Consumer Reports Analysis Shows*, CONSUMER REPORTS (Sept. 11, 2019) https://www.consumerreports.org/hybrids-evs/more-states-hitting-electric-vehicle-owners-with-high-fees/ [https://perma.cc/4KYZ-996E].

²⁰ Beam, supra note 12.

for many Kentuckians.²¹ It is not uncommon for miner's salaries, including overtime pay, to reach as much as one hundred thousand dollars per year.²² However, with increased challenges facing Kentucky coal jobs—including automation, competition from "cheaper, low-sulfur coal out West," decreased coal supplies, and increased regulations—coal mining and coal usage have waned.²³ This decline in the coal industry has inspired efforts to increase public support, creating organizations like Friends of Coal.²⁴ Friends of Coal aims to educate the citizens of West Virginia and surrounding states about the importance of coal by providing "a united voice for an industry that has been and remains a critical economic contributor to West Virginia."²⁵

Kentucky has a unique opportunity to protect the coal industry while also encouraging the purchase of efficient vehicles. This Note will show that by allowing for a temporary "Friends of Coal" waiver on electric and hybrid car registration fees, legislators could successfully frame a tax increase as an effort to protect coal. A pro-coal production waiver could decrease public opposition to increased taxes. Additionally, by not imposing any fees on electric vehicles, Kentucky consumers would not be dissuaded from purchasing electric cars. To prevent a decrease in revenue as the use of electric vehicles becomes more widespread. the legislature should pay attention to both the amount of infrastructure funds and the registration of electric vehicles. If, eventually, electric cars constitute a majority of Kentucky vehicles, the legislature could institute a usage tax. Combined with an increased, fixed-rate gas tax, Kentucky could ensure an adequately funded infrastructure.

This Note will argue why Kentucky's position as a coal state allows latitude to approach gas taxes uniquely. Part I will demonstrate the state of infrastructure funds and gas taxes in

 $^{^{21}}$ Steve Inskeep, In Kentucky, The Coal Habit Is Hard To Break, NAT'L PUB. RADIO (Jan. 12, 2016, 5:11 AM), https://www.npr.org/2016/01/12/462695139/in-kentucky-coal-country-a-mining-life-in-flux [https://perma.cc/WF6K-L7RC].

 $^{^{22}}$ Id

²³ Brad Plumer, Here's why Central Appalachia's coal industry is dying, WASH. POST (Nov. 4, 2013, 4:52 PM),

https://www.washingtonpost.com/news/wonk/wp/2013/11/04/heres-why-central-appalachias-coal-industry-is-dying/ [https://perma.cc/YK92-LTBY].

²⁴ See FRIENDS OF COAL, https://www.friendsofcoal.org/about-foc/who-we-are.html html (last visited Aug. 28, 2019) [https://perma.cc/N3UP-S597].
²⁵ Id

the United States, both at the federal and state level. Part II will explore individual states' changes to gas tax laws and measure the effectiveness of the revised laws to increase revenue for infrastructure projects, incentivizing the purchase of efficient or alternative fuel vehicles and public support. Part III will explore the status of Kentucky's infrastructure needs, history of gas tax legislation, public private partnerships, and legislative efforts to protect or support the coal industry. Attention will be given to HB 609–the 2018 bill proposed to increase the gas tax and implement fees for electric and hybrid vehicles. Part IV will assert the approach that best suits Kentucky: new legislation setting an increased fixed gas rate and imposing annual fees on hybrid and electric vehicles. To prevent disincentivizing electric car sales that rely on coal power, a partnership with Friends of Coal will offer a temporary waiver of hybrid and electric fees.

I. THE STATUS OF FEDERAL INFRASTRUCTURE FUNDING

The current gasoline tax is 18.4 cents per gallon for unleaded gasoline and 24.4 cents per gallon for diesel fuel.²⁷ However, the money raised by the federal gasoline tax is not used exclusively for the Highway Trust Fund, with departments like the Environmental Protection Agency (EPA) receiving funds for the Leaking Underground Storage Tank (LUST) fund.²⁸ For the first time since its inception in 1956, the Highway Trust Fund spent more than it raised in 2001.²⁹ With no increase in the tax since 1993, Congress has been forced to transfer \$143.6 billion from the Treasury to keep the fund afloat since 2008.³⁰ The history of the Highway Trust Fund highlights the difficult task ahead for lawmakers at both the federal and state level that without significant changes to the gas tax, needed infrastructure updates will be delayed, or more tax dollars will have to be repurposed for infrastructure needs.³¹

²⁶ See H.B. 609.

²⁷ Erica York, *A Brief Review of Federal Infrastructure Trust Funds*, TAX FOUNDATION (Jan. 18, 2018), https://taxfoundation.org/brief-review-federal-infrastructure-trust-funds/ [https://perma.cc/QY6A-9TAQ].

²⁸ *Id.*

²⁹ *Id.*

³⁰ *Id.*

 $^{^{31}}$ See id.

Americans understand the need for increasing the Highway Trust Fund revenue and support increased spending to do so.³² During the 2016 presidential election, candidates Donald Trump, Hillary Clinton, and Bernie Sanders supported increased federal spending on infrastructure.³³ A Gallup poll from March 2016 indicated that 75 percent of Americans support the notion of spending "more federal money to improve infrastructure, including roads, buildings, and waterways."³⁴ The support for increased spending on infrastructure is not surprising considering deficient infrastructure costs Americans around \$130 billion, as poor infrastructure causes increased vehicle maintenance, delays, safety, and environmental costs.³⁵

Such extreme increases in cost should not be surprising given the state of the United States' roads and bridges. Sources citing the *2013 Report Card for America's Infrastructure* say the report:

...assigned grades of only D and C+ to respectively the nation's roads and bridges. Throughout the United States, one bridge in every nine was rated as structurally deficient, requiring an estimated investment of \$76 billion to rectify, and 42 percent of America's major urban highways remain congested...The Federal Highway Administration estimates that \$170 billion in capital investments are needed annually to 'significantly improve conditions and performance' on those roads...³⁶

With such a drastic need for increased revenue, "at least two congressionally authorized commissions, several members of Congress, and numerous transportation-oriented groups, think tanks, and stakeholders" are debating whether the gas tax model

³² Frank Newport, *Americans Say "Yes" to Spending More on VA, Infrastructure*, GALLUP (Mar. 21, 2016), https://news.gallup.com/poll/190136/americans-say-yes-spending-infrastructure.aspx [https://perma.cc/L2FD-MKPY].

³³ *Id.*

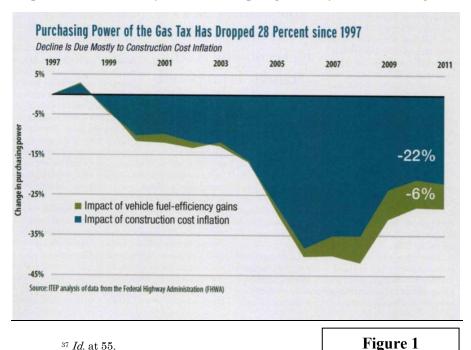
³⁴ Id.

³⁵ See Robert L. Reid, The Federal Gas Tax: How Much, How Much Longer?, 84 CIV. ENGINEERING MAG., no. 2, 2014, at 54, 59.

³⁶ *Id*

is viable.37 Having continued without an increase or without being tied to inflation for twenty-six years. Reid characterizes the gas tax as "someone trying to live in 2013 on the salary he or she earned back in 1993 without ever receiving a raise."38 More profound and complicated changes are needed to ensure infrastructure needs are met today and in the future.

However, the issue is not as simple as increasing the gas tax and linking it to inflation. As shown in Figure 1, the improved fuel efficiency of automobiles is reducing the purchase power of the gas tax.³⁹ The chart highlights the loss of purchasing power, which has resulted from the inability of the gas tax to keep up with inflation; the chart shows that the rising efficiency of vehicles contributed to a 6 percent loss of the gas tax's purchase power.⁴⁰ Over nearly two decades, spanning from 1997–2014, fuel efficiency in the United States increased from 19.7 miles per gallon to 21.4 miles per gallon.41 Furthermore, strengthening Corporate Average Fuel Economy (CAFE) standards could improve fuel economy to 28 miles per gallon by 2030.42 In light of



³⁷ Id. at 55.

³⁸ *Id.*

³⁹ *Id.*

⁴⁰ Reid, supra note 35.

⁴¹ Id. at 56.

⁴² See Weatherford, supra note 17.

this, legislators at the state and federal level must confront the reality of the diminishing viability of the gas tax.

A. Potential Solutions to the Flailing Gas Tax

One proposed solution is a usage-based model that charges drivers a tax based on the number of miles that they drive; this model requires drivers to pay directly for their use of the infrastructure. At the state level, a Vehicle Miles Traveled ("VMT") tax would improve revenue consistency over time, impose taxes where the driving occurs instead of where a driver refuels, and provide a framework for adopting a congestion pricing model. However, a VMT tax presents increased difficulty compared to the gas tax; VMT taxes are not collected as easily as gas taxes, allowing drivers to avoid the tax altogether. Furthermore, citizens would be required to disclose how much they are driving, which raises privacy concerns, and the implications of VMT tax distribution remain unclear. Given Kentucky's mix of urban, suburban, and rural populations, Traveled drivers to be seen if a VMT tax is feasible in the state.

Rural populations drive more than those in suburban and urban areas, resulting in VMT fees that are 16 percent higher than the average.⁴⁸ In Kentucky, many residents live in rural communities,⁴⁹ and, therefore, a VMT tax may be unpopular if implemented. Proponents of the VMT model point to the fact that rural residents typically drive less efficient vehicles than those operated in urban and suburban areas, meaning that their tax burden would actually decrease.⁵⁰ Therefore, even though rural drivers cover more miles, they already pay more in gas taxes than their urban and suburban counterparts since their cars are less

⁴³ See id. at 19.

⁴⁴ See id.

⁴⁵ *Id.*

⁴⁶ *Id.*

⁴⁷ See generally Mark Green, Kentucky Grows More Urban, THE LANE REPORT (Apr. 1, 2011), https://www.lanereport.com/1777/2011/04/kentucky-grows-more-urban/ [https://perma.cc/CX9V-V2G7] (discussing various statistics regarding Kentucky's urban, suburban, and rural communities).

 $^{^{\}rm 48}$ Weatherford, supra note 17, at 20.

⁴⁹ See Green, supra note 47 (stating the majority of Kentucky counties are rural).

 $^{^{50}}$ Weatherford, supra note 17, at 20.

fuel-efficient.⁵¹ Although true today, cars will continue to become more efficient, likely weakening discrepancies between urban, suburban, and rural vehicle efficiency.⁵² For Kentuckians, solutions to reduced infrastructure funds should not pit rural citizens versus urban or suburban ones, but rather should incorporate all interests to ensure changes to the gas tax are politically viable.

Another possible solution to inadequate infrastructure funding is to charge higher registration fees for hybrid and allelectric cars. 53 However, because the ability to charge vehicle registration fees is a task handled by the states, the federal government is unable to increase revenue for the Highway Trust Fund via increased fees on hybrid and electric vehicles.⁵⁴ Even so. the federal government has sought to incentivize the production and purchase of electric cars to reduce the emission of greenhouse gases. 55 To reach former President Obama's target of one million electric vehicles on the road by 2015, the federal government provided tax credits to consumers, disbursed loans, and put funds towards research and development efforts.⁵⁶ President Trump's policies have not been as supportive of electric vehicles; in December 2018, President Trump threatened to cut subsidies for electric cars. 57 Tax credits for consumers are one of the strongest and most popular methods used by the federal government to encourage electric vehicle purchases;⁵⁸ for example, plug-in

⁵¹ See id.

⁵² See Fox, supra note 3.

 $^{^{53}}$ Kevin Pula, $\it Taxes$ Fuel Transportation Funding, STATE LEGISLATURES, Apr. 2017, at 7.

 $^{^{54}}$ See John C. K. Pappas, A New Prescription for Electric Cars, 35 ENERGY L. J. 151, 183–88 (2014) (asserting that "states also offer perks to EV drivers like lower licensing fees, excise tax exemptions, reduced registration fees, high occupancy vehicle (HOV) lane access, and reduced toll fare" and listing what benefits the federal government can give).

⁵⁵ See id. at 182.

⁵⁶ *Id.*

⁵⁷ Paul A. Eisenstein, Trump's threats to pull electric car subsidies could kill U.S. jobs and give China an edge, NBC NEWS, (Dec. 12, 2018, 2:56 PM), https://www.nbcnews.com/business/autos/trump-s-threats-pull-electric-car-subsidies-could-kill-u-

https://www.nbcnews.com/business/autos/trump-s-threats-pull-electric-car-subsidies-could-kill-u n947141 [https://perma.cc/5E9T-E2SX].

⁵⁸ Paul Bledsoe, Tax Credits for Affordable Electric Vehicles Gain Speed, But Legislation Must Avoid Stop Signs, FORBES (June 18, 2019, 8:54 AM), https://www.forbes.com/sites/paulbledsoe/2019/06/18/tax-credits-for-affordable-electric-vehicles-gain-speed-but-legislation-must-avoid-stop-signs/#514bee6b2c9d [https://perma.cc/3NSR-QV3P].

electric vehicles are eligible for a \$7,500 credit.⁵⁹ As a result, the federal government is using tax revenue to subsidize the cost of cars that require zero dollars in payment toward the infrastructure that electric car drivers share with traditional internal combustion-powered cars. Increased registration fees for electric cars would offer states the ability to ensure that drivers of these cars pay their fair share without interfering with the federal government's policy goals.

However, while states can and should propose solutions to dwindling infrastructure funds, their efforts do not increase the balance of the Highway Trust Fund. The more probable federal solution will be a continuation of the same tactics—such as finding sources of funding elsewhere without increasing the gas tax or changing how Congress funds the Highway Trust Fund. In 2014, the House and Senate issued two proposals that added \$11 billion to the Fund.⁶⁰ The House Ways and Means Committee raised funds via "extending customs fees on importers that otherwise [would] expire, taking money from a separate trust fund for leaking underground storage tanks and changing the rules on the private pension contributions."61 Similarly, the Senate Finance Committee used the same sources of financing as the House, while including measures designed to increase compliance with existing tax laws. 62 Such measures, however, only provide a temporary solution, and without a comprehensive change to the financing of the Highway Trust Fund, Congress will likely reallocate tax revenue from other sources only to keep the trust fund solvent. 63 Short-sighted solutions to infrastructure harm the daily life of all Americans.

B. The Likelihood of a Federal Gas Tax Increase

While raising taxes is usually a contentious and unpopular issue, the underfunded federal Highway Trust Fund has increased calls from both Democrats and Republicans for

⁵⁹ Eisenstein, *supra* note 57.

⁶⁰ Jonathan Weisman, *House and Senate Committees Offer Competing Rescue Plans for Highway Fund*, N.Y. TIMES (Jul. 10, 2014),

https://www.nytimes.com/2014/07/11/us/highway-trust-fund.html~[https://perma.cc/Z8JT-KQML].

⁶¹ *Id*

⁶² *Id.*

⁶³ See id.

raising the gas tax.⁶⁴ Increased infrastructure spending is one of the few areas still considered to be a viable bipartisan issue within Congress and the Trump administration. 65 For example, President Trump supported the idea of an infrastructure bill while on the 2016 campaign trail. 66 During the campaign, Senate Republicans disfavored increased spending on infrastructure, but with the Democrats now controlling the House, it may be one of the few areas of compromise possible between the Executive and Legislative branches.⁶⁷

The reality, however, is far more complicated. There is a difference between supporting increased infrastructure projects and raising the gas tax. While it is likely that the President and legislators would favor legislation that modernizes American infrastructure, 68 being the party in support of tax increases is generally disfavored. While the overhaul of the federal gas tax is necessary, the Trump administration is unlikely to gain the support of both parties due to the division of political power between Democrats and Republicans.⁶⁹ Kentucky can forge a path to change the antiquated gas tax, leading the way for other states and even the federal government. Given the previously discussed financial burden of crumbling infrastructure to citizens, 70 the inability of the Highway Trust Fund to sustain itself under the current model,71 and Congress's continued disagreements over funding issues,72 a comprehensive and unique overhaul of the current system could prove that there are viable solutions to this issue.

⁶⁴ Andrew Prokop, Trump's free ride from Congress just ended, VOX (Nov. 7, 2018, 7:28 AM), https://www.vox.com/2018/11/6/18025036/election-results-democrats-winhouse-trump-investigations-analysis [https://perma.cc/K2XL-98VL].

⁶⁵ *Id.*

⁶⁶ *Id.*

⁶⁷ Id. 68 Id.

⁶⁹ See id. 70 Reid, supra note 35.

⁷¹ See York, supra note 27.

⁷² See Weisman, supra note 60; see also Prokop, supra note 64.

II. THE STATUS OF STATE GAS TAX LEGISLATION

Throughout the nation, states have been raising their gas taxes to increase funds for infrastructure improvements. On November 1, 2017, California raised its gas tax to twelve cents a gallon for gasoline and twenty cents a gallon for diesel, the highest rate in state history. His increase made California the second-highest state gas tax in the country. California also implemented a "transportation improvement fee, ranging from \$25 to \$175" annually. Starting in July 2020, Californians that drive zero-emissions vehicles, like electric cars, will have to pay a \$100 annual road improvement fee. California's increased gas tax and additional fees will attend to the state's infrastructure needs while countering the trend among consumers for zero-emission vehicles.

However, traditionally high-tax states like California⁷⁸ are not the only states increasing gas taxes.⁷⁹ "Since 2015, [twenty-five] states and the District of Columbia" increased their state gas tax.⁸⁰ In 2017, even low-tax states like West Virginia, South Carolina, and Tennessee raised gas taxes, as did Indiana, Montana, and Utah.⁸¹ Before this increase, Indiana had not raised its gas tax in fourteen years, and Tennessee had not had an increase since 1990.⁸² The change in state policy shows that what was once a politically damaging and infrequent adjustment for state gas taxes has become a pressing concern.⁸³ Kentucky would not be an outlier if it raised gas taxes and implemented a fee structure for alternative fuel vehicles.

 $^{^{73}}$ See Louis Jacobson, State Gas Tax Increase on the Rise, 83 PLANNING; CHICAGO 11, 11 (2017).

⁷⁴ Aubrey Stone & Earl Cooper, The Highest Gas Tax Increase in the State's History, Effective November 1, 2017, Was Not a Treat, LOS ANGELES SENTINEL (Nov. 2, 2017), https://lasentinel.net/the-highest-gas-tax-increase-in-the-states-history-effective-november-1-2017-was-not-a-treat.html [https://perma.cc/8ZEN-GGPY].

⁷⁵ *Id.*

⁷⁶ *Id.*

⁷⁷ *Id.*

⁷⁸ See id.

⁷⁹ Jacobson, supra note 73.

⁸⁰ *Id.*

⁸¹ *Id.*

⁸² *Id.*

⁸³ *Id.*

A. Including the Public in State Gas Tax Increases & Changes

Generally, state legislators concerned about re-election have not faced backlash from constituents after supporting an increase in state gas taxes.⁸⁴ A study completed between 2013 and 2016 by the American Road and Transportation Builders Association (ARTBA) found that 91 percent of legislators were reelected even after voting to increase the gas tax.85 The study found that constituents, when made aware of infrastructure needs in their state and when assured that increased gas taxes and fees would go directly to infrastructure, were willing to pay more to improve roads and bridges.86 However, even with increased costs, states are unable to fully fund needed infrastructure improvements according to transportation planners at the ARTBA.87 It remains to be seen if constituents will continue to support the increased cost if they do not see improvements where they live and drive. A successful public relations campaign highlighting the need for infrastructure improvements in Kentucky, as well as a continued public relations campaign highlighting Kentuckian's tax dollar at work, could continue to keep changes to the gas tax in Kentucky popular.

States with usage taxes for miles driven have also avoided backlash from their constituents. In Oregon, drivers can opt into a mileage-based fee at a rate of 1.5 cents per mile driven.⁸⁸ Drivers who choose the mileage-based fee system are then eligible to be refunded.⁸⁹ By establishing a voluntary system, Oregon implemented a small test run of a mileage-based consumption tax, and by limiting participation to five thousand people, Oregon ensured the state had the personnel and resources necessary to implement such a plan.⁹⁰ A limited run could allow Kentuckians to evaluate proposed changes to the gas tax to reduce anxiety and opposition.

⁸⁴ *Id*

⁸⁵ Jacobson, supra note 73.

⁸⁶ *Id.*

⁸⁷ Id.

^{**}SWendy Leavitt, Road usage fee "option" coming to Oregon, FLEET OWNER (July 9, 2013), https://www.fleetowner.com/news/road-usage-fee-option-coming-oregon-0 [https://perma.cc/7NVE-82MG].

⁸⁹ *Id.*

⁹⁰ Id.

Perhaps even more reassuring is the fact that Americans support creative solutions to curb crumbling infrastructure. Almost two-thirds of Americans support paying road use fees to improve infrastructure.91 By highlighting the need for increased infrastructure funds, the Kentucky legislature could rework how the state finances infrastructure projects while including constituents, thus simultaneously preventing widespread backlash and criticism while also seamlessly integrating new legislation. A trial run of the proposed changes to the gas tax would also allow the state government to work out issues, ensure preparation, and see constituent reactions before committing to a permanent change.

III. THE STATUS OF KENTUCKY'S INFRASTRUCTURE

Kentucky's infrastructure funding is in dire need of increased revenue. In 2016, a Pause-50 plan was put into place to avoid depleting the Road Fund. Pause-50 plan was put into place to avoid depleting the Road Fund. The plan slowed infrastructure-related projects to allow the Road Fund to grow and recoup, as well as pay for current expenditures. The state transportation cabinet prefers to have at least \$100 million in the Road Fund to ensure viability. At the time of the implementation of the Pause-50 plan, the Road Fund had \$352.8 million. Despite the surplus, the plan halted "the starts of new state-funded projects in all phases, which includes design, right of way/utilities, and construction for the first year of the new two-year budget. Even with reserves well above the desired level, needed infrastructure projects and declining revenue from the gas tax forced legislators to halt projects to prevent insolvency.

⁹¹ Hillary Russ, *Most Americans support usage fees to fix crumbling roads:* survey, REUTERS (Apr. 27, 2016, 7:15 PM), https://www.reuters.com/article/us-usa-roads-survey/most-americans-support-usage-fees-to-fix-crumbling-roads-survey-idUSKCN0XO2OT [https://perma.cc/D7M9-C37F].

⁹² Jack Brammer, *Kentucky plans to delay start of new road projects*, HERALD LEADER (June 07, 2016, 5:27 PM), https://www.kentucky.com/news/politics-government/article82324627.html [https://perma.cc/A2J5-GKQL].

⁹³ *Id.*

⁹⁴ *Id.*

⁹⁵ *Id.*

 ⁹⁶ Id.
 97 See id.

According to the 2017 American Society of Civil Engineers' Infrastructure Report Card, Kentucky's poor infrastructure cost drivers an average of \$331 a year in repair costs. 98 Furthermore, 8 percent of Kentucky bridges were found to be structurally deficient, and 22 percent "were classified as functionally obsolete, meaning they did not meet current design standards."99 Currently, Kentucky needs to respond to \$1 billion in overdue infrastructure projects. 100 Overall, the Reason Foundation's Annual Performance of State Highway report of 2016 gave Kentucky a ranking of fourteen out of fifty states in overall highway performance.¹⁰¹ Urban areas like Louisville, Lexington, and Northern Kentucky have more roads in poor condition than in rural areas. 102 These smaller areas present legislators with the ability to attempt gas tax reform on a smaller scale, with Lexington or Louisville testing the proposed changes first before rolling them out statewide. Residents in urban areas could be more likely to volunteer for new proposals, due to suffering from subpar infrastructure and a desire to improve their driving conditions.

Another possibility for Kentucky is a public-private partnership, where private business groups invest in projects that are typically government-funded. The University of Kentucky has relied on public-private partnerships to complete over a billion dollars of renovations and new construction at its Lexington, Kentucky campus. ¹⁰³ Instead of leaving taxpayers to foot the bill for new dorms, a student center, and various renovations, the University partnered with developers and

⁹⁸Ky. Chamber of Com., A Citizens Guide to Kentucky Infrastructure 4

 $https://www.kychamber.com/sites/default/files/pdfs/A\%20Citizens\%20Guide\%20to\%20Kentucky\%20Infrastructure\%20May\%202017_0_1.pdf [https://perma.cc/2CPF-VT3T].$

⁹⁹ *Id.*

 $^{^{100}}$ Kentucky lawmakers say hike in gas tax needed to fund road and bridge repairs, WDRB (Mar. 23, 2018), https://www.wdrb.com/news/kentucky-lawmakers-say-hike-in-gas-tax-needed-to-fund/article_7230f943-709b-598e-9fb1-7f039b5efc7c.html [https://perma.cc/H5NX-9V7W].

¹⁰¹KY. CHAMBER OF COM., supra note 98.

¹⁰² See id.

 $^{^{103}}$ Office of the President, Campus Transformation, UNIVERSITY OF KENTUCKY, https://www.uky.edu/president/priorities-and-accomplishments/campus-construction (last visited Nov. 21, 2019) [https://perma.cc/LQP4-7CSE].

construction firms to make significant investments on campus.¹⁰⁴ In exchange, developers can recoup their costs by charging the room and board fees usually charged by the University directly.¹⁰⁵

The Kentucky House has attempted to facilitate public-private partnerships through H.B. $309.^{106}$ The bill aims to promote:

[T]he use of public-private partnerships (P3s) as an alternative method of procurement, construction, and financing of capital projects and services by state government; define terms and establish procedures; require the promulgation regulations relating P3 administrative procurement; establish certain oversight, reporting, General Assembly authorization and requirements.¹⁰⁷

Public Private Partnership law, according to the Kentucky Chamber, should be used aggressively to allow private-sector investments to grow and sustain the infrastructure that is key to the state's growth. ¹⁰⁸ By providing a legal framework for public-private partnerships, Kentucky seems focused on reducing apprehension and promoting public-private partnerships as an alternative to taxpayer funded projects.

The Middle Mile, a \$324 million public-private partnership aimed at creating a fiber-optic network for all one hundred and twenty counties in Kentucky, offers insight into public-private infrastructure projects. ¹⁰⁹ The project pairs private internet providers with state funding to provide internet access for 152,000 Kentuckians in rural areas by 2020. ¹¹⁰ Limestone deposits make installing fiber-optic cables difficult in Eastern Kentucky, and small populations lead companies to believe it

 $^{^{104}}$ See At the University of Kentucky, a building boom and a push to retain students, WDRB (Feb. 1, 2017), https://www.wdrb.com/news/at-the-university-of-kentucky-a-building-boom-and-a/article_4c67fae7-3e1d-56fe-9c3a-59c7d2ef808b.html [https://perma.cc/EQ76-NMD7].

¹⁰⁵ *Id.*

¹⁰⁶ H.B. 309, 2018 Gen. Assemb., Reg. Sess. (Ky. 2016).

 $^{^{107}} Id$

 $^{^{108}}$ Ky. Chamber of Com., supra note 98, at 1.

¹⁰⁹ Ky. CHAMBER OF COM., supra note 98, at 14.

¹¹⁰ *Id.*

does not make financial sense to invest in rural areas.¹¹¹ To solve this issue, the Commonwealth of Kentucky made an initial investment of \$30 million and provided tax-exempt and taxable bonds, allowing private internet providers the ability to expand the fiber-optic network in the state.¹¹²

The Middle Mile project faced setbacks and criticism for its ambitious promises. ¹¹³ For one, stakeholders do not own the poles which carry the cables, causing delays. ¹¹⁴ Even more troublesome is the requirement that the state needs to move forward with installing fiber-optic cables at the local level; cities, counties, and utilities must allow the Middle Mile to move forward in each community. ¹¹⁵ While public-private partnerships offer solutions to complex problems, they are not without their complications.

Merely establishing a public-private relationship is not enough to ensure meaningful investment in the state. With the two main categories of public-private relationships, demand-risk and availability-payment partnerships, it is crucial that government leaders choose the model that best accomplishes the desired result while also protecting taxpayers. In demand-risk partnerships, the private partner accepts all the risk that project revenues may not work out as planned, which makes this type beneficial to taxpayers. In contrast, in availability-payment partnerships, the public partner is on the line for payments for the duration of the contract, whether the infrastructure is useful or not. If Kentucky legislators turn to a public-private partnership to fund the Road Fund, they must rely on the demand-risk partnership to protect Kentucky taxpayers while ensuring the completion of needed infrastructure projects.

¹¹¹ Kriston Capps, *The Hitch in Kentucky's Plan to Build High-Speed Internet for All*, CITYLAB (Feb. 1, 2018), https://perma.cc/SL8U-EV9V].

¹¹² Ky. Chamber of Com., supra note 98, at 14.

¹¹³ See Capps, supra note 111.

¹¹⁴ *Id.*

¹¹⁵ *Id.*

¹¹⁶ *Id.*

¹¹⁷ *Id.*

¹¹⁸ *Id.*

A. Kentucky Gas Tax Legislation

So far, Kentucky's elected officials have not proposed a public-private partnership to solve the lack of infrastructure funding. The Kentucky House of Representatives, however, has introduced legislation aimed at increasing revenue and improving the state's infrastructure. HB 609 proposes various changes aimed at increasing the reserves in the Road Fund for Kentucky's infrastructure needs. The changes include:

increasing the current motor fuels excise tax on gasoline and special fuels by increasing the average wholesale price floor to \$2.90 per gallon; increasing the supplemental highway user motor fuels tax; providing for annual adjustment to the supplemental highway user motor fuels tax based upon changes in the National Highway Construction Cost Index value; imposing additional registration fees on hybrid, hybridelectric, and nonhybrid electric vehicles; increasing fees for obtaining driving history records; and increasing motor vehicle registration fees, special plate fees, CDL reinstatement fees, initial certificate of title fees and duplicate titles, traffic school fees, overweight and over dimensional single trip and annual permit fees. 121

The bill also created a task force to determine the feasibility of a mileage-based funding mechanism. ¹²² By raising the state gas tax and driving-related fees, HB 609 would bring in \$433,749,950 to the state once fully implemented. ¹²³Increased revenue, while significant, has been met with opposition by those who are opposed to increased costs to Kentucky residents. ¹²⁴ However, it

¹¹⁹ H.B. 609.

¹²⁰ See WDRB, supra note 100.

 $^{^{121}}$ H.B. 609.

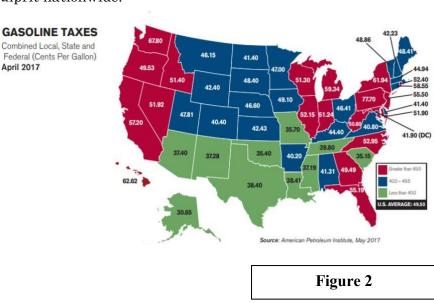
¹²² *Id.*

¹²³ *Id.*

¹²⁴ See Joe Sonka, Americans for Prosperity already gearing up against gas tax hike, KENTUCKY NEW ERA (Sep. 21, 2018),

 $https://www.kentuckynewera.com/news/ap/article_07c99c94-bcfc-11e8-adc9-530a7f7ae7a2.html [https://perma.cc/WN7F-AZYW].$

is likely that supporters of HB 609 anticipated resistance because the Kentucky Association of Manufacturers (KAM) encouraged their readers to call their Senators and Representatives to voice support as soon as Representatives proposed legislation. 125 For Andrew McNeill, a representative of a conservative lobbying group called Americans for Prosperity, HB 609 represents an overspending problem within the state government. 126 McNeill supports the idea of quality roads but questions whether or not the Transportation Cabinet is efficiently using the money it already generates. 127 For legislators that have seen drastic cuts to the state budget over the past decade, such assertions are laughable. 128 Given the numerous states that have increased their gas taxes and vehicle fees to increase infrastructure revenue, and recognizing that Kentucky's current gas tax rate is below the national average (as seen in Figure 2), it seems there is a need for increased revenues to keep up with rising infrastructure costs—poor money management cannot be the only culprit nationwide. 129



¹²⁵ What You Need to Know, March 19, 2018 Regular Session (2018), KAM (Mar. 20, 2018), https://kam.us.com/march-19-regular-session-2018/ [https://perma.cc/J9AU-BJ3R].

 $^{^{126}}$ WDRB, supra note 100.

¹²⁷ *Id.*

¹²⁸ Id.

 $^{^{129}\}mbox{Ky}.$ Chamber of Com., supra note 98, at 8.

While half a billion dollars would surely kickstart delayed and overdue infrastructure projects, the specifics of the bill leave room for criticism. For example, the fees on hybrid and electric car registrations require Kentucky drivers to pay more when registering their fuel-efficient vehicles. Hybrid drivers must spend at least fifty dollars, hybrid electric drivers pay at least \$100, and nonhybrid electric drivers must pay at least \$150.131 These fees are designed to ensure that drivers of fuel-efficient vehicles pay for the infrastructure they use; similarly, gas taxes are used to pay for infrastructure. Efficient vehicles like electric and hybrid cars lead to a loss of gas tax revenue. These fees will raise annual revenue, but may dampen demand for hybrid and electric vehicles, presenting a unique issue for the Commonwealth of Kentucky: coal powers the electric grid.

B. Legislative Efforts to Protect the Coal Industry

For coal states like Kentucky, the decline of the coal industry has become problematic, especially in Eastern and Western Kentucky. The coal industry was a contested issue in the 2016 presidential election, with voters asking both Secretary Clinton and now President Trump how they would support coal. For those that depend on coal to make a living, a friendly approach to the coal industry was welcome. The low price of natural gas and President Obama's Clean Power Plan created difficulties for an already struggling sector—over twelve thousand jobs were lost during the Obama presidency in West Virginia. The lost of the coal industry was presidency in West Virginia.

¹³⁰ H.B. 609.

¹³¹ *Id.*

¹³² See Chris Coffey & Jonathan Ballew, Hybrid, Electric Vehicle Owners Hit With Higher Registration Fees, NBC CHICAGO (Nov. 15, 2018, 6:29 PM), https://www.nbcchicago.com/investigations/Hybrid-Electric-Vehicle-Owners-Hit-With-Higher-Registration-Fees-500635981.html [https://perma.cc/HFC8-LRDJ].

¹³³ See id.

¹³⁴ See generally Sheryl Gay Stolberg, Trump's Promises Will be Hard to Keep, but Coal Country Has Faith, N.Y. TIMES (Nov. 28, 2016), https://www.nytimes.com/2016/11/28/us/donald-trump-coal-country.html [https://perma.cc/9EGG-HR6G] (discussing Hillary Clinton, who had previously dismissed coal's future, statement that she could now claim to be the coal industry's friend, compared to Trump's promise to "put coal miners back to work.").

¹³⁵ Id.

 $^{^{136}}$ *Id.*

support coal seemed to be a path back to a comfortable lifestyle for workers that previously made an excess of six figures.¹³⁸

President Trump is not the only elected public official attempting to protect the coal industry. Senators Rand Paul (R-KY) and Mitch McConnell (R-KY) supported President Trump's repeal of the Stream Buffer Rule. The Stream Buffer Rule:

covers waterways near surface coal mining operations like mountaintop-removal mines. When the tops of mountains are blown up to get at the coal below, the resultant rubble is dumped into valleys, often leading to pollution of rivers and streams with dangerous heavy metals like selenium, mercury, and arsenic[.]...It says that coal mines must not damage the "hydrologic balance" outside their permit area, and established a 100-foot buffer around streams to preserve native species.¹⁴⁰

Both McConnell and Paul supported the repeal of the Stream Buffer Rule because they believed it unfairly targeted the coal industry. McConnell and Paul seemed to think that supporting the coal industry is a worthier policy goal than the Stream Buffer Rule's policy goal of protecting the environment. Fortunately for Kentucky State Legislators, however, solving the lack of infrastructure funding will not require the choice between the environment and Kentucky's coal industry.

The U.S. House of Representatives undertook a similar balancing of environmental protections and the coal industry's interests in 2013. A draft bill sought to limit the Environmental Protection Agency's (EPA) ability to regulate power plant carbon

¹³⁷ *Id.*

¹³⁸ *Id*

¹³⁹ Dr. Rand Paul Joins President Trump for Signing of Legislation Protecting Kentucky Coal Industry, RAND PAUL, U.S. SENATOR FOR KY.,

https://www.paul.senate.gov/news/dr-rand-paul-joins-president-trump-signing-legislation-protecting-kentucky-coal-industry (last visited Nov. 21, 2019) [https://perma.cc/8YED-8ZR9].

¹⁴⁰ Paul Rauber, Goodbye, Stream Protection Rule, THE SIERRA CLUB (Feb. 1, 2017), https://www.sierraclub.org/sierra/green-life/goodbye-stream-protection-rule [https://perma.cc/PM8U-HPKE].

 $^{^{141}}$ $\emph{Id.};$ RAND PAUL, supra note 139.

emissions. 142 Senator Joe Manchin (D-WV) and Representative Ed Whitfield (R-KY) sought to implement a plan that would strengthen the coal industry by reducing EPA oversight and regulation. 143 Manchin and Whitfield's proposal would have required the EPA to regulate carbon emissions on new power plants via commercially proven technology. 144 The congressmen, both from coal country, wanted to balance environmental and economic health. 145 Kentucky State Legislators should look to Manchin and Whitfield's balancing approach for the best results for the Commonwealth to succeed at fully funding the Road Fund while also supporting coal.

C. Plug into Coal

The predicted rise in electric vehicle sales presents Kentucky with a unique position in terms of its gas tax legislation. An electric vehicle increases electricity use by an percent industrialized households. 146 estimated 50 in Furthermore, the source of electricity must be included in emission calculations to understand total emissions fully.¹⁴⁷ For Kentucky's electric car drivers, where the coal assumes most of the electric grid, emissions are estimated to be 155 g km⁻¹ of greenhouse gas emissions. 148 This data complicates policy proposals in Kentucky. Electric vehicles are not emission-free, and the reliance on coal-powered grids could lead to increased demand for coal production in the state. With electricity use increasing by 50 percent in households with an electric car, increasing electric car sales in the state could affect the demand for coal. 149

¹⁴² Thomas O. McGarity, Avoiding Gridlock Through Unilateral Executive Action: The Obama Administration's Clean Power Plan, 7 WAKE FOREST J.L. & POL'Y 141, 175–76 (2017).

¹⁴³ *Id.*

¹⁴⁴ *Id.*

¹⁴⁵ See id.

 $^{^{146}}$ Oscar van Vliet et al., Energy use, cost and CO2 emissions of electric cars, 196 J. of Power Sources 2298, 2298-2310 (2010).

https://www.academia.edu/24794073/Energy_use_cost_and_CO2_emissions_of_electric_car s [https://perma.cc/7QQA-UXDY].

¹⁴⁷ *Id.*

¹⁴⁸ *Id.*

¹⁴⁹ *Id.*

The rise in household electricity use does not mean that electric cars are more harmful than gasoline-powered vehicles in coal states. While it is true that electric vehicles that rely on electricity sourced from the burning of coal are not actually emissions-free, they still release fewer CO2 emissions than a traditional internal combustion engine. In an internal combustion-powered car, Iburning a gallon of gasoline to drive [twenty-five] miles produces around [twenty-two pounds] of carbon dioxide. An electric car, by contrast, Iconsuming 8.3 kWh of electricity to drive the same distance will generate around pounds of CO2, 65% of it from coal, the rest from less carbon-intensive sources. Thus, while not as clean as their advertised ability to produce zero emissions from driving, electric cars in coal country still pollute considerably less than traditional hybrid and internal combustion engines.

CONCLUSION

To fully fund infrastructure needs, Kentucky state legislators should adopt a "Friends of Electric Cars" mentality. Like the Friends of Coal organization that aims to lobby for, protect, and advance the coal industry in states like Kentucky and West Virginia, ¹⁵³ legislators should embrace the uniqueness of Kentucky's coal-powered electric grid and pass legislation that pairs gas tax reforms with a pro-coal message. Such a solution would increase demand for efficient cars, particularly electric vehicles, while also promoting coal and raising the profile of the coal industry.

By partnering with the Friends of Coal organization, Kentucky could form a public-private partnership that protects the taxpayer while simultaneously promoting coal on a larger scale than what Friends of Coal can do on its own. However, legislators would still need to pass HB 609. By increasing the floor of the gas tax, expanding gas tax rates, and implementing

 $^{^{150}}$ Bill Moore, Nebraska's Nuclear Legacy and My Electric Car, CULTURE CHANGE (June 28, 2011), http://www.culturechange.org/cms/content/view/747/66/ [https://perma.cc/65DE-HQWZ].

¹⁵¹ *Id.*

 $^{^{152}}$ Ia

 $^{^{153}}$ Friends of Coal, supra note 24.

fees on hybrid and electric cars, HB 609 will increase revenue to fund the state's infrastructure needs. ¹⁵⁴ To offset resistance by anti-tax legislators and constituents, Friends of Coal could temporarily cover the fees HB 609 will charge on electric vehicles for a specified period. In exchange, a percentage of the registration fees for traditional internal combustion engines will go to Friends of Coal once the waiver period has ended.

This partnership will increase the demand for electric cars by reducing emissions in Kentucky while relying on the coalpowered electric grid. By increasing the gas tax, consumers will be driven toward the use of more efficient vehicles. Already motivated to find an efficient car that reduces fuel costs, consumers will likely choose electric vehicles for the fee waiver provided by Friends of Coal. Instead of paying \$50 or \$100 annually for a hybrid or hybrid electric vehicle, 155 Fee-free allelectric cars will motivate Kentucky drivers. For legislators, such a proposal allows for a rebranding of the needed tax increase by creating both a pro-coal and pro-environmental bill that rewards Kentuckians for purchasing electric vehicles. For Friends of Coal, the ability to secure continuous funding and an elevated presence in the state ensures that coal miners can continue to be represented and protected.

¹⁵⁴ H.B. 609.

¹⁵⁵ *Id.*