

To: Joe Milazzo II, RTA executive director

From: Michael Hogan, RTI International. RTA policy and research coordinator

Date: May 22, 2025

Subject: Proposed Access User Fee

Overview

The regional and statewide business community in North Carolina support options to modernize transportation funding for reliable, consistent state transportation revenue amidst a policy environment of growing demand, unstable funding, and increasing costs. Business groups, transportation partners, state governments, and national leaders recognize that increasing fuel efficiency, electric vehicle adoption, changing driving habits, and economic cycles impact volatility in transportation revenues from gas taxes and other travel-based funding sources, and the future of gas tax revenue is uncertain. The proposed access user fee, a single fee for all registered vehicles, is an option proposed by the Regional Transportation Alliance (RTA), the North Carolina Chamber, and other business leadership organizations to replace the gas tax and simplify and strengthen transportation funding in North Carolina.

This whitepaper provides an overview of the current state of transportation funding in North Carolina, revenue challenges and projections, access user fee scenarios, and calculations of a proposed access fee and projected impacts to state revenues. It then looks at potential future outcomes and revenue scenarios. This whitepaper is not intended to take a position on one alternative or another, but to present the state of transportation funding and considerations for calculating fees and their future impact to drivers and state revenues.

Proposed Access User Fee

Executive Summary

Increased fuel efficiency, electric vehicle adoption, changes in miles driven, and external factors ranging from economic downturns to natural disasters to pandemics are among the factors driving volatility in revenue collected from the state motor fuels tax. **The regional and statewide business community has proposed an “access user fee” concept as a potential method of replacing the gas tax to modernize and stabilize funding for transportation.**

An access user fee would apply a consistent price for all registered vehicles, regardless of usage, analogous to a common monthly mobile phone bill, and simultaneously replace the state gas tax. Initial implementation of a potential access user fee is based on the average gas tax paid annually per vehicle in North Carolina. The proposed access user fee would initially apply to all vehicles *not* propelled by diesel – with the largest share being gasoline-powered private passenger vehicles.

An access user fee activated in 2025 for gasoline powered vehicles, in concert with a corresponding increase in the existing, partial access fees for electric and hybrid vehicles, would be around \$252 per year, or about \$21 per month, assuming revenue neutrality at the time of implementation and the simultaneous elimination of the state gas tax. All non-diesel registered vehicles would pay the same \$252 amount on an annual basis. Had the access user fee been implemented in 2020 using 2019 gas tax values, the current rate in 2025 would be \$268, or around \$22 per month.

The implementation of an access user fee as a resilient primary funding source to replace the gas tax, combined with existing vehicle registration fees, highway use tax, and the 6% sales tax allocation to transportation, would improve future stability of transportation revenue in North Carolina as technologies and driving habits change, sometimes in unpredictable ways. To support RTA and the regional business community, RTI examined the state of transportation revenue and the fiscal impacts of a potential access fee structure.

Overview of State Transportation Funding

- By the end of 2024, state motor fuels taxes contributed over \$2.5 billion annually to transportation in North Carolina, of which an estimated 80% came from gasoline sales.
 - On average, the state receives around \$252 per year per registered vehicle in gasoline taxes.
 - When adjusting for inflation, North Carolinians paid **\$56 less per vehicle** in annual gas taxes in 2024¹ when compared to 2014.
 - By 2025, gasoline taxes accounted for 44% of state transportation revenue, down from 62% in 2013.
- The rate of construction cost inflation (66%) based on the purchasing price index since 2014 has more than doubled the 31% rate of increase in the consumer price index (the standard measure of inflation) and has outpaced growth of both gas tax revenue per vehicle (11%) and total transportation revenue per vehicle (40%).
- As the primary source of highway funding, declining gas revenue is an issue at the state and national level. Since 2013, at least 33 states have taken actions to increase gas taxes and states are exploring road user charges, pilot vehicle-miles traveled (VMT) programs, and increased use of

¹ Values are in 2024 dollars

tolls to make up for the shortfall. In 2025, at least 39 states charged a flat EV fee to make up for the shortfall in gas tax revenue².

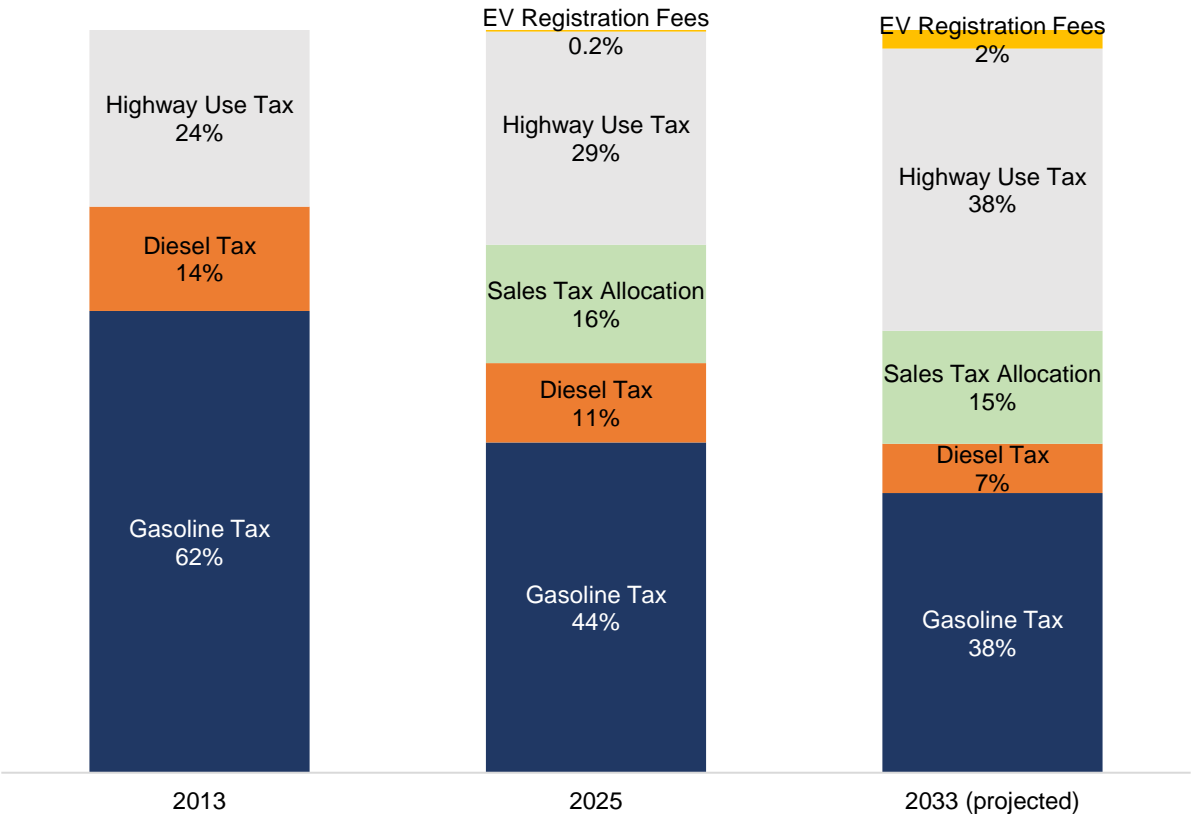
- Since FY 2023, a portion of sales tax revenue has gone to transportation in North Carolina. By July 2024, 6% of sales tax revenue allocated to transportation is expected to add as much as \$750 million to transportation revenue. The sales tax allocation is expected to be the third largest source of transportation funding by 2025 (behind only the gasoline tax and highway use tax, and ahead of diesel tax revenue) and will contribute significantly to revenue stability and future growth in transportation funding in North Carolina.

Future of Proposed Access Fee Scenarios

- By 2033, gasoline taxes are projected to make up 38% of state transportation revenue, a decline from 62% two decades earlier.
- A revenue-neutral access fee, set in 2025, would be in the range of \$252 per vehicle.
- Had an access fee been implemented in 2020, North Carolina would have raised an estimated \$200 million more annually from an access fee compared to the baseline growth in gasoline tax revenue, or an 11% increase over the projected gasoline tax revenue.
 - From the start of 2020 to the end of 2024, the state would have raised \$1 billion in additional revenue, offsetting losses in 2020 from a decline in vehicle miles traveled and corresponding reductions in gas tax collections.
- When accounting for all sources of highway funding including the sales tax allocation, the access fee would generate an increase of total state revenue for transportation of 5% by 2025.

² NCSL: <https://www.ncsl.org/state-legislatures-news/details/states-steering-toward-alternatives-as-gas-tax-revenue-dips>

Figure 1: Proportion of Sources of State Transportation Revenue in North Carolina: 2013, 2025, and 2033 (projected)

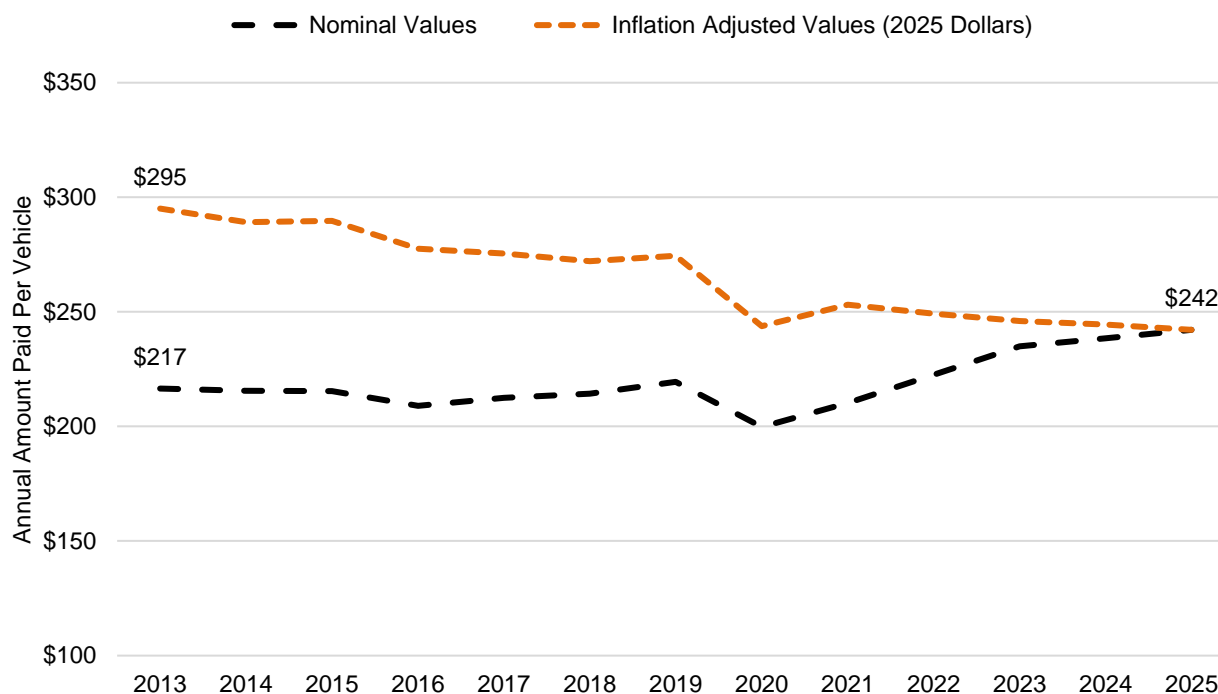


Source: Historic data from NCDOR, RTI Estimates

Current State of Transportation Revenue in North Carolina

By the end of 2024, state motor fuels taxes contributed over \$2.5 billion annually to transportation in North Carolina. Gasoline sales generated 80% of motor fuels taxes; diesel and other highway fuels made up the remaining 20%. Excluding Fiscal Year 2020, total motor fuels tax revenue has grown in North Carolina consistently since 2011, due to overall growth in population, but has declined on a per capita basis when adjusted for inflation due to improving efficiency and greater adoption of electric vehicles. Additionally, the pandemic-driven decline in driving in 2020 exposed the vulnerability of the gasoline tax as a steady source of revenue.

Figure 2: Average Gasoline Tax Paid per Vehicle in North Carolina: 2013-2025



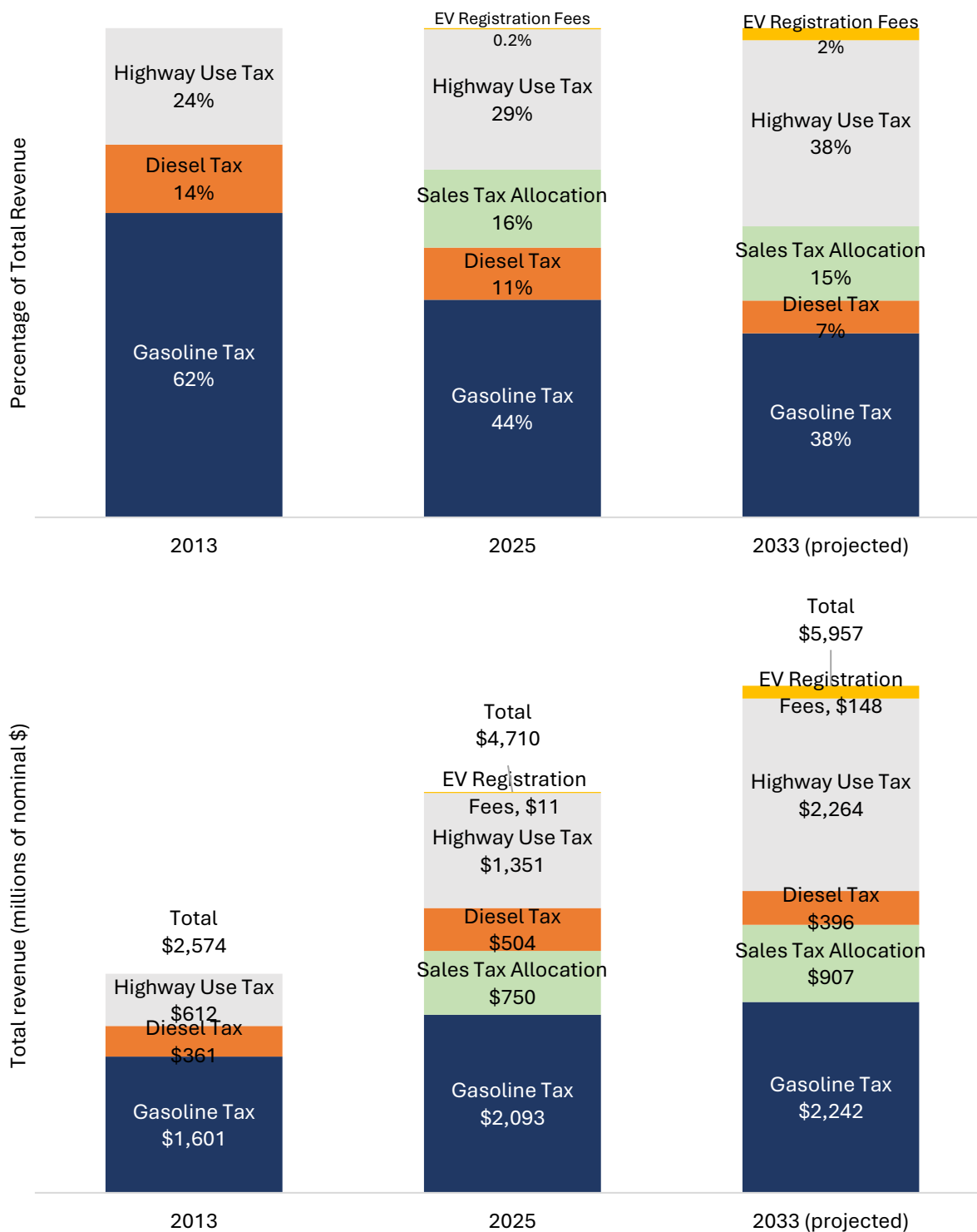
Source: Historic data from NCDOR. Consumer Price Index from BLS

Leaders and policymakers in North Carolina and across the U.S. recognize the need for sustainable transportation funding as the dynamic of passenger vehicle transportation changes. Historically, state and federal motor fuels taxes have been widely accepted as a method to fund transportation based on use. However, adoption of electric vehicles (EVs) alongside increasing fuel efficiency results in declining sales of gasoline, and subsequent tax revenue to fund transportation programs. Over half of states in the U.S. are exploring or researching gas tax alternatives, as models project a decline of 10% or more in gas tax revenue over the next decade amid continued transition to fuel efficient and electric vehicles as well as rising construction costs.

Research from the National Association of State Budget Offices shows that in 2024, gas tax revenue made up 37.6% of states' transportation funding on average – a decline from 41.1% in 2018. States including California, Louisiana, and Arizona all forecast funding shortfalls driven by gas tax revenue failing to keep pace with inflation. In North Carolina, gasoline taxes made up 44% of funding in 2025, down from 62% in 2023 – although the size of this drop is primarily due to the increasing allocation of sales tax revenue to transportation during that time. In the future, as sales tax allocation, highway use tax,

and EV registration fees make up a larger share of state revenue, the gasoline tax is projected to continue to decline as percentage of transportation funding.

Figure 3: Proportion of Sources of State Transportation Revenue in North Carolina: 2013, 2025, and 2033 (projected). Percentages and Total Numbers

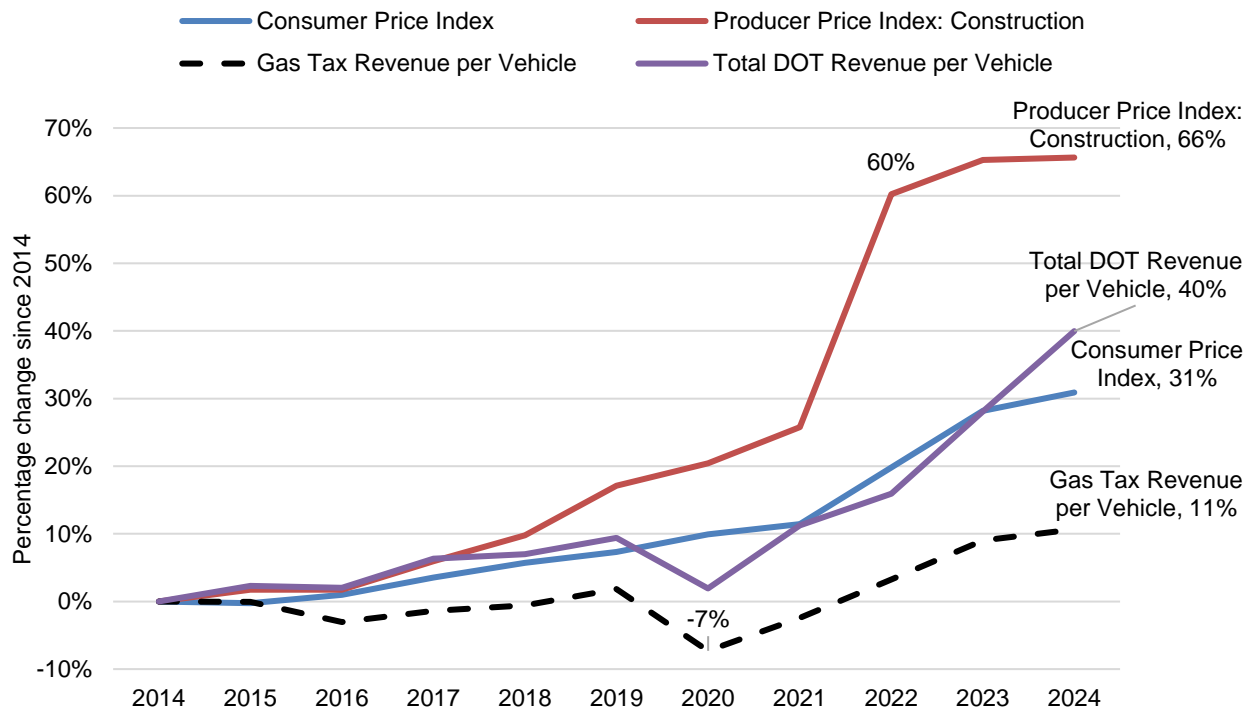


Source: Historic data from NCDOR, RTI Estimates

Revenue and Construction Cost Trends

State motor fuels taxes make up approximately half of state transportation revenue in North Carolina. Since 2014, North Carolina's total revenue from gas taxes has increased as the state's population has grown, but it has not grown on a per capita basis to keep up with the rate of inflation. Additionally, producer price index (PPI) for construction costs have grown faster than the consumer price index (CPI), rising by 66% from 2014 to 2024, with the sharpest growth from 2021 to 2022. The rate of construction cost inflation has more than doubled the 31% rate of increase in the CPI - the standard measure of inflation - and has far outpaced growth of both gas tax revenue per vehicle (11%) and total transportation revenue per vehicle (40%). Total transportation revenue was boosted by the 6% sales tax allocation which became fully effective in FY 2025.

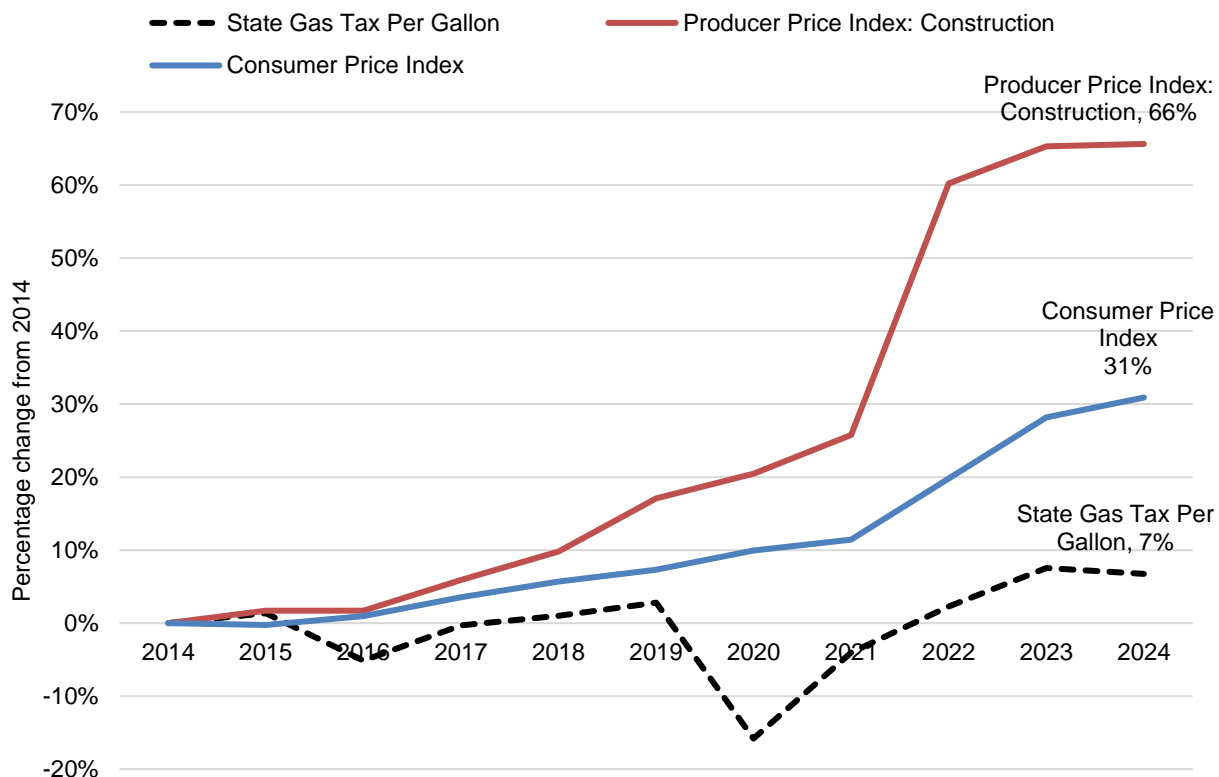
Figure 4: Revenue for Transportation and Measures of Inflation in North Carolina: 2014-2024



Source: Historic data from NCDOR, Consumer Price Index and Producer Price Index from U.S. Bureau of Labor Statistics

Motor fuels taxes are in North Carolina adjusted on an annual basis based on a formula calculated relative to the CPI for energy and registered vehicles in the state. Since 2014, gas tax per gallon has increased nominally by 7%, but as shown before, the PPI for construction increased by 66%. The annual adjustments to gas taxes have not kept pace with increasing construction costs.

Figure 5: State Gas Tax Per Gallon and Measures of Inflation in North Carolina: 2014 to 2024.



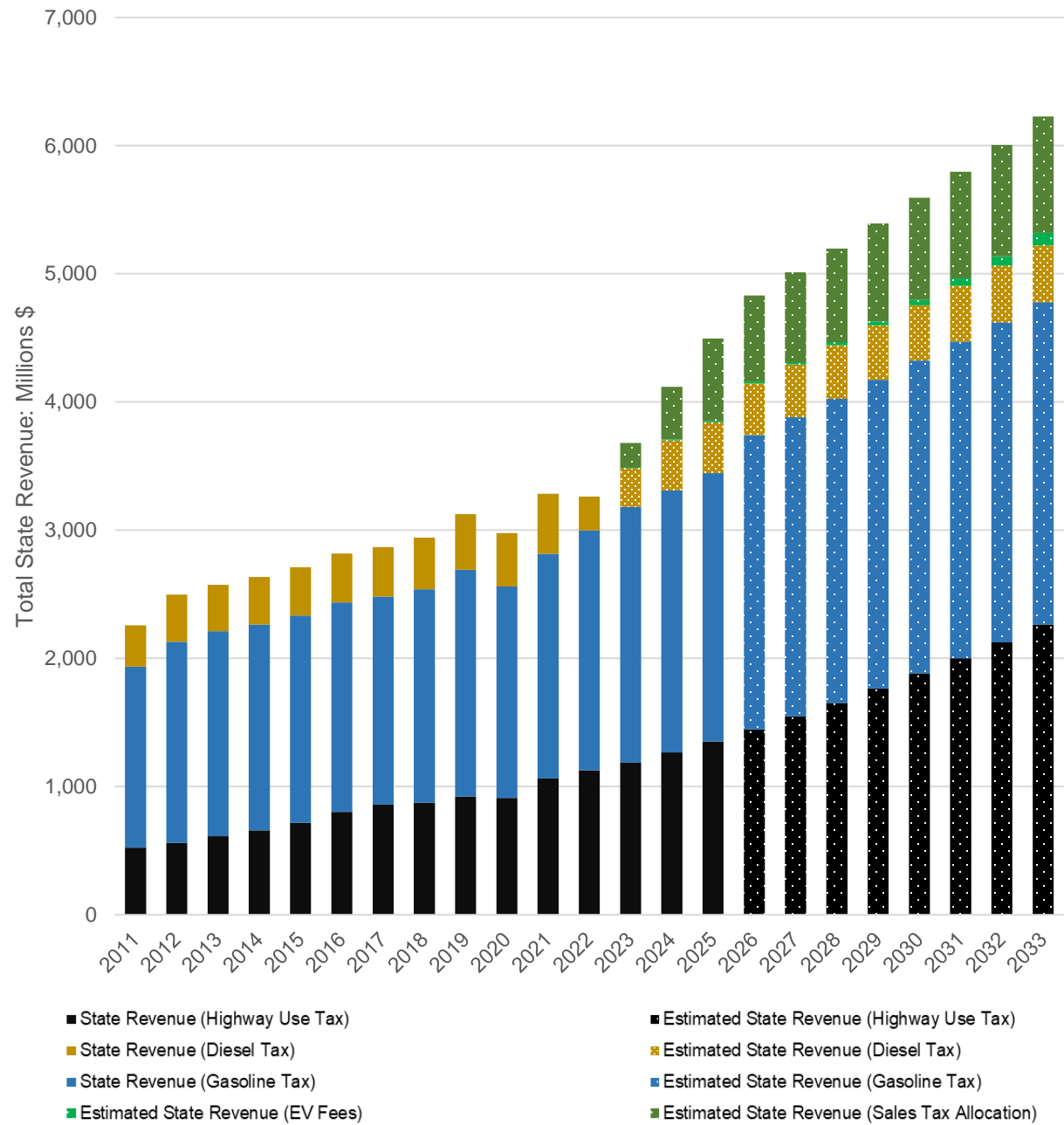
Source: Historic data from NCDOR, Consumer Price Index and Producer Price Index from U.S. Bureau of Labor Statistics

Prospective View of Overall Revenue in North Carolina

Historic data and models from NCDOT have shown historic growth in transportation revenue driven by increases in population, and future models show a continuation of growth driven by population increase, new vehicle registrations, and the 6% sales tax allocation approved by the legislature in 2022.

Diversification of funding sources including the sales tax allocation and an increase in the highway use tax has helped NCDOT grow its funding base and keep up with CPI inflation, but not construction costs.

Figure 6: State Transportation Revenue by Source: 2011-2023



Source: Historic data from NCDOR, future projections from NCDOT, RTI Estimates

Objective of Access User Fee

The goal of the access user fee is to provide a simple, sustainable, and predictable funding source for transportation in the future in North Carolina. At least 39 states as of the start of 2025 have a partial access user fee for EVs currently in place³.

Under full implementation of an access user fee, a flat fee per registered vehicle would completely replace the gasoline tax. This report assumes and calculates the price of the access user fees to be revenue neutral in its year of full implementation, with annual adjustments for inflation, similar to annual inflation indexing for the state gas today⁴. Under full implementation, all non-diesel-powered vehicles would pay the same access user fee rate.

Note that the choice of indexing measure – and the potential incorporation of construction or producer-related costs into the index calculation – is an important, related policy question to ensure that the revenue stream remains resilient over time.

Access Fee Calculation, Implementation and Annual Revenue

RTI calculated the cost of a revenue-neutral based access user fee rate through two methods: a top-down approach dividing total motor fuels tax revenue by the number of vehicles, and a bottom-up approach that takes into consideration national average fuel economy, average vehicle miles traveled (VMT), and the state gas tax rate.

In both cases, a revenue neutral framework is based on the average gas tax paid annually per registered vehicle (not per driver). The model calculates the potential value of an access user fee in two ways:

1. the national average fuel economy for the entire motor vehicle fleet, average vehicle miles traveled (VMT), registered passenger vehicles, and the state motor fuels tax rate per gallon.
2. The total tax revenue collected by the NCDOR, divided by the number of registered passenger vehicles in the state

The fee is calculated based solely on private, gasoline powered vehicles (excluding diesel and state-owned vehicles) to be revenue neutral in the year of implementation.

Access Fee Calculations: Method 1 – Average Fuel Economy

RTI examined the equivalent of an access user fee to replace North Carolina's existing gasoline tax of **\$0.403** per gallon in 2025. On average, each vehicle in 2025 would contribute an estimated **\$252** per year to fund transportation through gasoline taxes in North Carolina, based on the average vehicle mileage, fuel economy, and gasoline taxes.

- 14,430 miles annual miles per vehicle values of 122,475 million vehicle miles traveled, with 8.6 million gasoline powered vehicles registered in North Carolina according to FHWA.
- Fuel efficiency is for the entire stock of vehicles on the road in 2024, including new and existing vehicles, as reported by EPA.

³ <https://www.nytimes.com/2025/01/27/business/ev-fees-gas-tax.html?searchResultPosition=1>

⁴ Note that diesel fuel and diesel-powered commercial vehicles such as trucks are taxed differently through the International Fuel Tax Agreement (IFTA) and would not be affected by this change

Access Fee Calculations: Method 2 – NCDOR Revenue

As a quality control check, RTI examined NCDOR historic data, assuming the following:

- 5.6 billion gallons of gasoline purchased in the state
- 8.5 million registered gasoline-powered, private passenger vehicles in the state
- gasoline tax of **\$0.403** per gallon in 2025

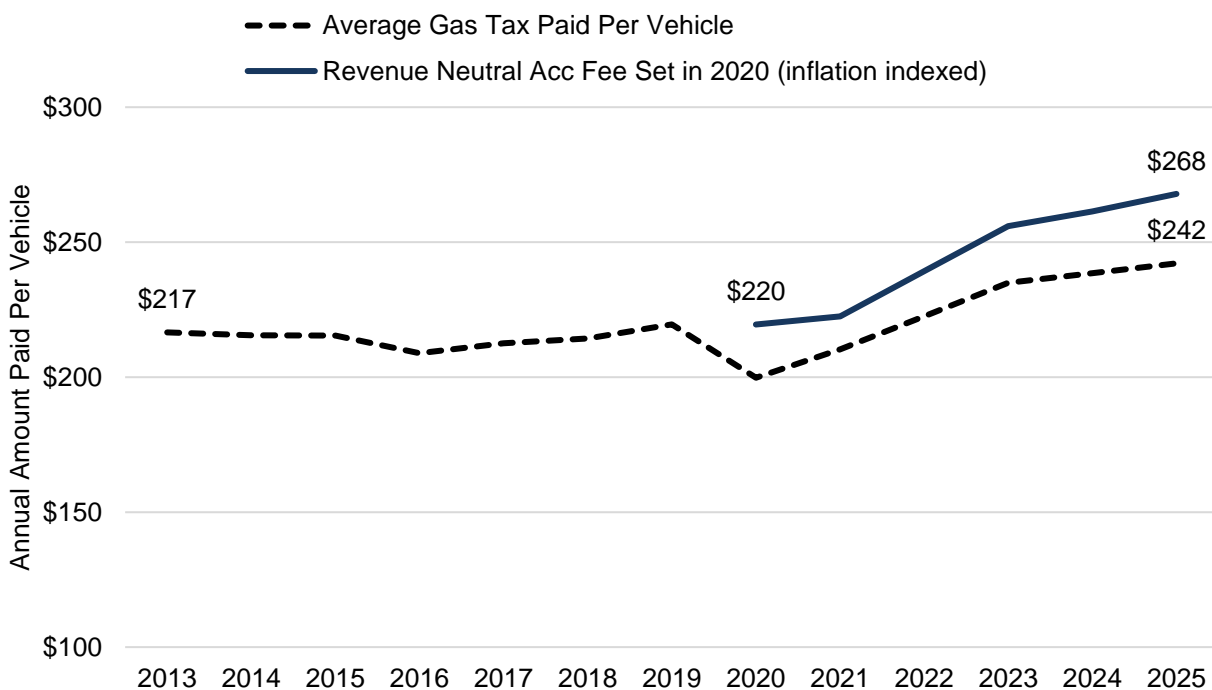
This gives an average of 620 gallons of fuel purchased per vehicle per year, or just over \$251 paid in gas taxes annually per vehicle per year in 2024. This is a difference of only one dollar from the proposed fee calculated via average fuel economy.

A hypothetical uniform access user fee implemented in 2025 of **\$252 per year, or about \$21 per month**, would be revenue neutral at the time of implementation and would offset the loss of revenue from eliminating the current gas tax. In 2025, gasoline taxes are projected to generate an estimated \$2 billion in revenue for the state, which represents a slight increase above 2024 levels but remaining below pre-2020 levels of gas taxes paid *per vehicle*. An access fee implemented in 2025 would be expected to generate the same **\$2 billion** in revenue.

State Revenue Impact - Retrospective

If an access fee had been implemented at the start of 2020 using values from 2019 (based on fuel efficiency, VMT, and gas tax rates that year) and indexed for inflation annually, the access fee would be \$268 in 2025, or about \$22 per month. The state would have received an average of 9% more revenue from an access user fee versus actual gasoline tax receipts from 2020 to 2024. Gas tax collections varied, driven by a drop in VMT in 2020 and rapid inflation from 2022 to 2023. Indexing gas taxes to the consumer price index would result in a similar revenue trajectory as an access fee, aside from the variability in VMT in 2020. Based on these assumptions,

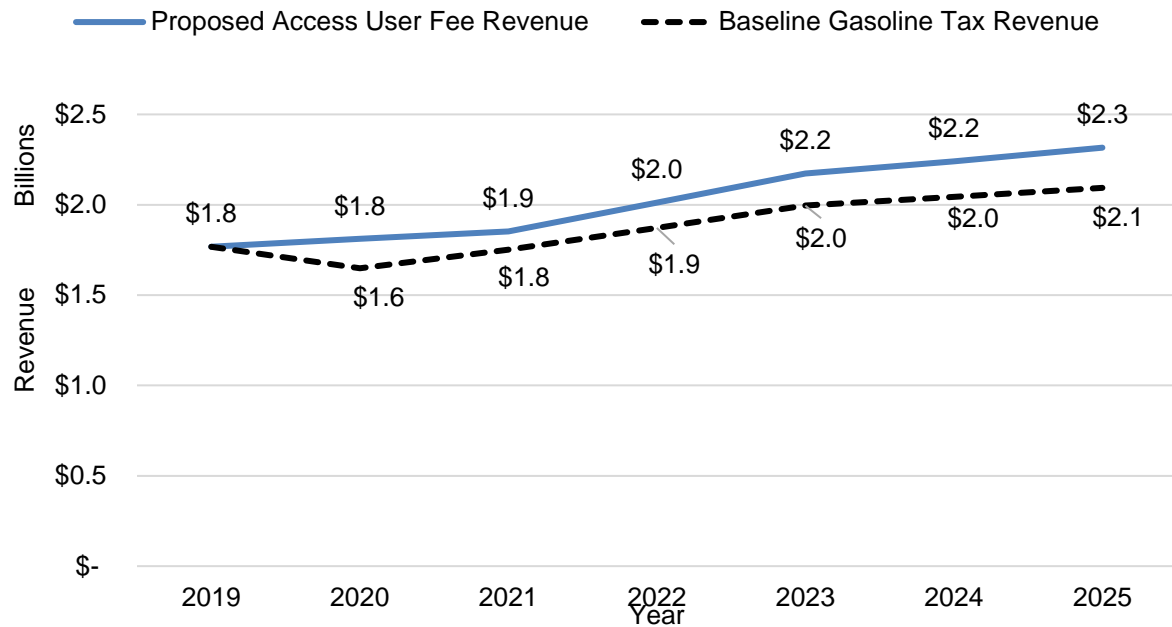
Figure 7: Average Gas Tax Paid per Vehicle and Proposed Access User Fee Set in 2020



Source: Historic data from NCDOR, RTI Estimates

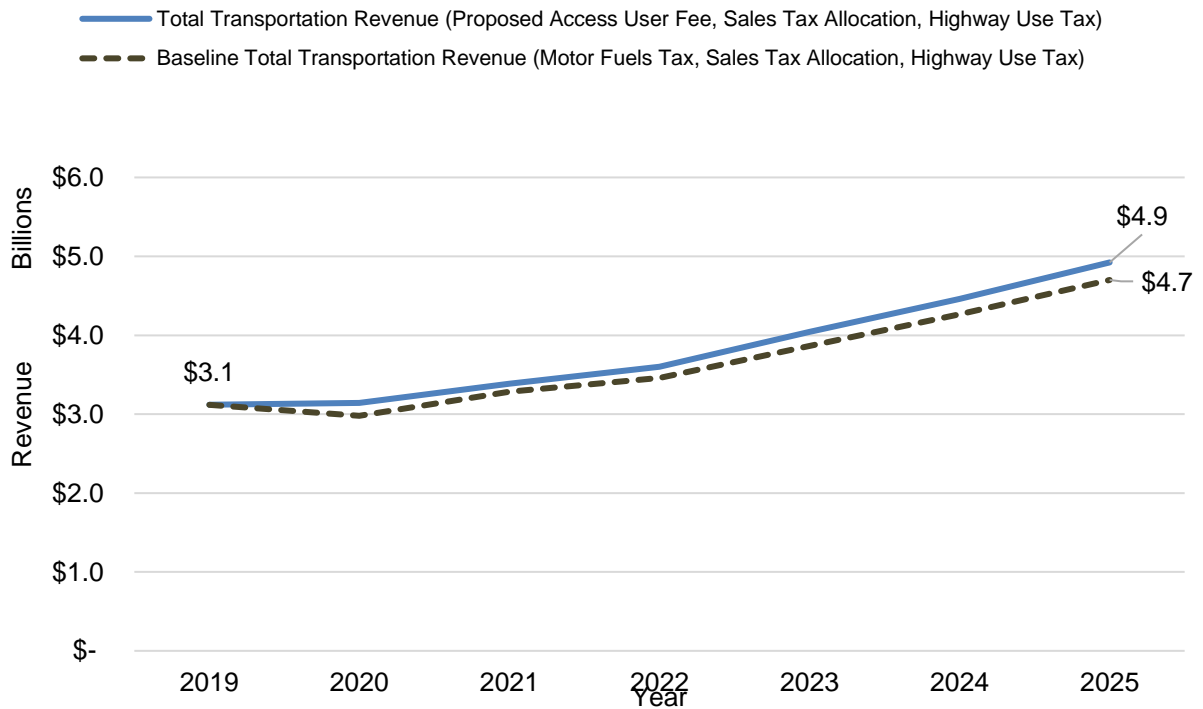
- By 2025, North Carolina have would have raised an estimated \$200 million more annually from an access fee compared to the baseline growth in gasoline tax revenue, or an 11% increase over the projected gasoline tax revenue (excluding diesel taxes, EV fees, Highway Use Tax, sales tax transfers)
- From 2020 to 2025, the state would have raised \$1 billion in additional revenue, offsetting losses in 2020 from a decline in vehicle miles traveled
- When accounting for all sources of highway funding including the sales tax allocation, the access fee would generate an increase of total state revenue for transportation of 5% by 2025.

Figure 8: Revenue from Proposed Access User Fee and Gasoline Tax in North Carolina: Modeled 2019-2025



Source: Historic data from NCDOR, RTI Estimates

Figure 9: Revenue from Proposed Access User Fee and All Sources of Transportation Revenue in North Carolina: Modeled 2019-2025



Source: Historic data from NCDOR, RTI Estimates

Additional Considerations and FAQs

The attached FAQs include additional questions and considerations, including how this proposed framework would accompany the existing EV fee, questions of out-of-state motorists, fairness, and other alternatives.

“Access User Fee” approach to modernize state highway funding – FAQs

Q. Is an access fee truly a usage fee?

- An access fee is a *user* fee, not a *usage* fee.
- An access user fee is based on the value of access to the entire mobility network. It is analogous to a typical monthly phone bill that does not vary based on minutes used.

Q. Is this fee envisioned as an addition to state gas taxes and the annual state fee on EVs, or as a replacement?

- An access user fee would replace all state gas taxes.
- An access user fee would replace fees on electric and hybrid vehicles, which are partial access fees.
- However, an access user fee would be in addition to the annual state vehicle registration fee ([currently \\$46.25](#)).

Q. Is an access user fee approach fair?

- An access fee would provide a simple, transparent, level playing field. It does not matter what vehicle you drive, how fuel efficient it is, or how far you live from your job — you would pay the same fee.
- Many rural residents, who often need to travel further for work and other activities, would pay less in access fees than they do today in gas taxes or under a possible mileage-based fee system.

Q. What about heavy trucks?

- Initial implementation of the access user fee focuses on vehicle propulsion methods *except* diesel fuel, so current truck taxation methods would remain. The payment of diesel fuel taxes would continue.
- The NCDOT [FIRST Commission report notes](#) that it takes 9,000+ passenger cars to equal the impact of a single tractor semi-trailer. Since truck impacts based on mileage, an access fee would not be appropriate.

Q. What about out-of-state motorists?

- An access fee is a user fee for vehicles registered in our state. Out of state motorists would not pay.
- Currently, both North Carolina and out-of-state drivers can easily cross state lines and drive using gas purchased in another state, resulting in them traveling on the roads without paying the state gas tax.
- As other states consider gas tax alternatives such as VMT fees, highway use taxes, delivery taxes, or increased registration fees, there are also scenarios where North Carolina drivers could use other states' roads without paying their gas tax. Currently North Carolina drivers who use Virginia roads do not currently pay the [Highway Use Fee](#), a tax on high-efficiency vehicles to make up for lost revenue from gas taxes.

- The calculation of the access user fee rate, which assumes revenue neutrality when activated, accounts for all gas purchased and miles traveled in the state, whether done by NC registered vehicles or not.
- Eliminating our state gas tax will make gas stations and convenience stores more attractive and could increase state sales taxes paid by both NC and out-of-state residents – 6% of which are now dedicated to transportation.

Q. What about vehicles that are rarely driven?

- NCDOT makes the entire road system available to all vehicles; there is a benefit to all travelers and a cost to the state for providing and maintaining that 24/7, all roads access.
- The legislature could consider a partial or transitional access fee rebate for low usage vehicles that have previously paid very little in gas taxes.

Q. What advantages would an access fee have over gas taxes or a possible vehicle miles traveled (VMT) fee framework?

- Access fees provide simplicity, fairness, and consistency and resiliency – which lessens revenue volatility. VMT fee programs also raise questions of privacy and can be complex to implement.
- Had an access fee been in place over the past 5 years, NCDOT would have collected \$1 billion more in state revenue compared to gas taxes over the past decade due to better revenue stability.

Q: State revenues for transportation are increasing and the current system appears to be working. Why change it?

- State revenues for transportation have grown with population but at a slower rate than the cost of construction. Most models show state and federal gas tax revenue per-capita declining in the future.
- Diversifying funding through the 6% sales tax allocation has helped NCDOT access more resources, but there are still risks in the future of transportation revenue not keeping up with construction and road demand.
- Nearly all states in the U.S. are looking to diversify funding for transportation through a mix of EV fees, hybrid fees, charging fees, delivery fees, one-time transfers, rental fees, and/or mileage fee pilots.