

To: Joe Milazzo II, RTA executive director

From: Michael Hogan, RTA policy and research coordinator

RTI authors: Michael Hogan, Joshua Fletcher

Date: November 3, 2023

Access User Fee – Past Revenue Models and Future Projections

Increased fuel efficiency, electric vehicle adoption, and changes in miles driven 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.

We determined the potential value of an access user fee based on the average gas tax paid annually per vehicle, national average fuel economy, average vehicle miles traveled (VMT), and the state gas tax rate. The proposed access user fee would initially apply to all vehicles not propelled by diesel.

Key findings

- **An access user fee activated in 2023 for gasoline powered vehicles, in concert with a corresponding increase in existing, partial access fees for electric vehicles, would be around \$251 per year, or about \$21 per month**, assuming revenue neutrality at the time of implementation and the simultaneous elimination of the state gas tax.
- North Carolinians are paying **nearly \$50 less per vehicle** in annual gas taxes today compared to 2012, when adjusted for inflation.
- If an access fee had been implemented in 2012 (based on fuel efficiency, VMT, and gas tax rates that year), and then adjusted for inflation quadrennially (like vehicle registration fees) or annually (like gas taxes), the current access fee would be between \$261 and \$285 per year, or \$22 to \$24/month.
 - Had an access fee been in place since 2012, the state would have resulted in **\$1.4 billion to \$2.1 billion more in cumulative revenue for transportation over the last decade.**
 - If an access fee had been in place prior to the pandemic, the state would have retained between \$400 million and \$600 million in additional revenue during 2020 alone.
 - By 2033, the proposed access fee could generate **between \$300 million and \$600 million more annually** for transportation when compared to gas taxes.
 - At the rates of growth of the motor fleet in North Carolina, RTI projects the access fee will generate **\$3.3 billion annually by 2033.**
- **An access fee mitigates revenue risk** from both ongoing increases in fleet fuel economy and volatility in vehicle miles traveled due to the pandemic and economic cycles.
 - While overall gas tax revenue is projected to increase due to population growth, there is a risk of volatility and declining revenue per vehicle. This would translate into a potential gas tax revenue shortfall between \$3 billion and \$6 billion from 2033-2043.
- Additionally, 6% of sales tax revenue will be dedicated to transportation as a result of 2022 state legislative provisions, diversifying the revenue stream for transportation in North Carolina.

Access Fee Calculation, Implementation and Annual Revenue

State motor fuels taxes make up approximately half of state transportation revenue. In determining the potential value of an access user fee under a revenue neutral framework, the model calculates the access fee in two ways, based on the average gas tax paid annually per vehicle (not per driver):

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.

2023 access fee calculations

RTI examined the equivalent of an access user fee to replace North Carolina's existing gasoline tax of **\$0.405** per gallon in 2023. On average, each vehicle in 2022 contributed just under **\$251** per year to fund transportation through gasoline taxes in North Carolina, based on the average vehicle mileage, fuel economy, and gasoline taxes.

- 14,369 miles annual miles per vehicle based on 2019 values of 122,475 million vehicle miles traveled, with 8.5 million gasoline powered vehicles registered in North Carolina according to FHWA. Note we did not use 2020 values due to an estimated 13% decline in vehicle miles traveled due to the pandemic.
- Fuel efficiency is for the entire stock of vehicles on the road in 2019, including new and existing vehicles, as reported by EPA.

As an alternative, 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 **\$0.405** per gallon in 2022

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 which, with rounding, is identical to the result from the prior calculation.

A hypothetical uniform access user fee implemented in 2022 of **\$251 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 2023, gas taxes are projected to generate an estimated \$2.3 billion in revenue for the state, which represents a slight increase above 2022 levels but remaining below pre-2020 levels of gas taxes paid per vehicle. An access fee implemented in 2023 would generate the same **\$2.3 billion** amount of revenue.