

# Creating a sustainable, “access fee”-based highway revenue model by lowering the fuel tax and raising the vehicle registration fee

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## **THE POTENTIAL OF AN “ACCESS FEE”-BASED APPROACH TO STABILIZING FUNDING**

- *This concept is that one pays for access to the entire state roadway system for a fee, regardless of usage*
- This funding option would simply involve increases to the state’s existing, indexed, vehicle registration fees (and/or driver’s license fees), along with a reduction or elimination in fuel taxes
- Motorists could have the choice of annual, monthly, or weekly billing to simplify access fee payments
- North Carolina already has an additional annual fee for electric vehicles, since they cannot pay fuel taxes; this concept applies the existing electric vehicle fee approach to all registered passenger vehicles
- This access fee approach would apply to cars and light trucks only, not heavy commercial vehicles

*One might think of an access fee approach as analogous to mobile phone plans: users would pay a monthly (e.g.) fee for access to the entire non-tolled statewide road network.*

See reverse for example rates and revenue.

### **Other benefits and considerations of an access fee-based approach**

- Reduced/eliminated fuel taxes will incentivize fuel and other purchases in NC by residents and visitors
- An allocation of (increased) state sales tax revenue could help capture funding from out-of-state drivers
- Alternatively, travelers could be electronically charged weekly (e.g.) access fees upon entering our state
- Access fee revenues are more resilient to drops in travel mileage than indirect user fees like fuel taxes
- Unlike some other possible options, access fees would not require new administrative or tracking systems

*Access fees are largely independent of travel demand, and are not susceptible to changes in either vehicle fleet mix or fuel efficiency – which makes them a less volatile, more sustainable funding option.*

**An “access fee-based” approach could be a simple, resilient funding solution for North Carolina.**

## **BACKGROUND: OVERVIEW OF THE TRANSPORTATION FUNDING CHALLENGE**

### **A primary funding problem: growth is coming and the fuel tax cannot keep up**

- Our population is growing, and our infrastructure needs are still increasing
- Unfortunately, gas taxes are not sustainable, because fuel efficiency is not uniform
- More precisely – It is the increasing disparity in fuel efficiency across the fleet of registered motor vehicles that renders the option of significantly increasing fuel taxes both unfair and politically impossible

*The core funding challenge stems from our inability to directly charge for usage in a manner that is reliable, fair, congruent with the actual cost of providing the infrastructure, and politically acceptable. As a result, we have to find the most sustainable, fair, and acceptable solution we can—or, the least unacceptable one.*

### **Existing motor fuel taxes are only indirect user fees – and like all user fees, subject to funding volatility**

- Fuel taxes and other possible “user” fees do not always align with the cost of providing infrastructure
- For example, “vertical” highway construction costs (i.e., pavement depth) are primarily caused by trucks, not cars, while “horizontal” costs (e.g., number of lanes) are primarily caused by cars in congested areas
- As a result, an auto driver who rarely travels in congestion might give rise to near zero incremental costs to the state, in terms of added pavement width or depth – regardless of their daily or annual travel
- Fuel taxes, like all user fees, are subject to funding volatility: when travel drops, due to a pandemic or economic downturn, fuel tax revenues also drop, but many of the costs of the state road system continue

*The relationship of travel mileage to infrastructure costs is indirect, since when and where the travel occurs matters. In addition, NCDOT must make the entire roadway system available and well-maintained for everyone, regardless of the level of usage for any particular customer.*

**EXAMPLE ACCESS FEE-BASED APPROACH RATES AND REVENUE**

Fuel tax rate (¢/gal)	Average Annual Fuel tax paid per driver (\$/year)	Avg. Fuel tax per mo. (\$/mo)	Reduction in fuel tax rate from current level (¢/gal)	Reduced fuel tax revenue = Required Access fee* per year (\$/year)	Equiv. Access fee* per mo. (\$/month)	FUEL TAX RATE NOTES
36.4 ¢	\$ 237	\$ 19.73	-	-	-	Current fuel tax rate in NC, no access fee
29.4 ¢	\$ 191	\$ 15.94	7.0 ¢	\$ 46	\$ 3.79	= Current VA fuel tax rate, plus access fee
27.4 ¢	\$ 178	\$ 14.85	9.0 ¢	\$ 59	\$ 4.88	= Current TN fuel tax rate, plus access fee
24.8 ¢	\$ 161	\$ 13.44	11.6 ¢	\$ 75	\$ 6.29	= Current SC fuel tax rate, plus access fee
18.2 ¢	\$ 118	\$ 9.87	18.2 ¢	\$ 118	\$ 9.87	= 50/50 fuel tax, access fee revenue split
13.8 ¢	\$ 90	\$ 7.48	22.6 ¢	\$ 147	\$ 12.25	= Lowest fuel tax rate (AK), plus access fee
0.0 ¢	-	-	36.4 ¢	\$ 237	\$ 19.73	End fuel taxes, fully replace w/ access fee

\* Access fee = Additional registration fee in lieu of some or all motor fuel taxes

**Explanatory notes:**

The above table assumes overall revenue neutrality. Some calculations above have been rounded.

Current fuel tax rates/gallon: NC = 36.4 ¢; SC = 24.8 ¢; TN = 27.4 ¢; VA = 29.4 ¢; GA = 32.2 ¢.

SC fuel tax rate will increase to 26.8 ¢ in July 2021 and 28.8 ¢ in July 2022.

The lowest fuel tax rate in the US is Alaska, at 13.8 ¢.

The above table assumes 16,066 annual miles driven per person in NC, and average fuel efficiency of 24.7 mpg, when calculating average annual fuel tax paid per driver.

Electric vehicles currently pay a \$140.25 fee in NC but no fuel taxes; as this is below the \$237 average annual fuel tax paid, this means that other motorists subsidize electric vehicles' use of the road system by ~ \$97/year.

Currently motorists pay \$38.75 to register their vehicle in North Carolina (fee varies by vehicle type). The access fees listed above (i.e., additional registration fees) are over-and-above that amount. The existing registration fee could be incorporated into a monthly access fee by adding \$3.23 per month (e.g.) to the above amounts.