

DATE: March 12, 2019  
TO: Kansas State Senate Transportation Committee  
ATTN: Chairman Petersen and Members of the Committee  
FROM: Tami Alexander, Program Coordinator  
Metropolitan Energy Center, Central Kansas Clean Cities Coalition  
RE: Testimony on SB 189

Metropolitan Energy Center (MEC) is a community non-profit founded in Kansas City in 1983. We have over 35 years of experience in creating resource efficiency, environmental health, and economic vitality in the bi-state Kansas City region. MEC has been the home of the Kansas City Regional Clean Cities Coalition since 1998 and the Central Kansas Clean Cities Coalition since 2013. As part of the national Clean Cities program, our goal is to create energy security and support regional jobs by working locally to increase use of alternative fuels in transportation. We have over 20 years of experience and expertise in working with alternative fueled vehicles of all types, including biofuels, gaseous fuels and hybrid electric and battery electric vehicles.

We offer this testimony regarding SB 189, which concerns changes to the motor vehicle registration fees, with increased fees for electric and hybrid vehicles. While we recognize the need to recoup funding for the State Highway Fund due to the reduced or eliminated motor fuel taxes for these vehicles, we are opposed to this bill as written for the following reasons.

- 1) Wording apparently intended to address hybrid electric vehicles (page 2, lines 1-2) could easily be interpreted to apply to bi-fuel or dual-fuel vehicles, such as those that burn both gasoline and natural gas, diesel and natural gas, gasoline and propane, or other combinations of liquid and gaseous fuels. Gaseous fuel is already subject to motor fuel taxes equivalent to gasoline and diesel. Therefore, increasing the registration fees for this type of vehicle would result in duplicating the fuel tax for those vehicles.
- 2) The amounts that have been proposed for the registration of hybrid electric and battery electric vehicles is disproportionate to the amount of lost revenue from motor fuel taxes for these vehicles, especially when using public charging. This results in total motor fuel taxes and registration fees for these vehicles that are unfairly high compared to similar-sized gasoline combustion engine vehicles driving similar miles.
- 3) Fixed fees for any vehicle type are inevitably unfair to low-mileage drivers, who will pay substantially more per mile driven than a high mileage driver, who should be paying more.

Data captured nationwide across many EV studies was analyzed by Idaho National Laboratory in 2014, which found that the average all-electric miles traveled was 9,648 miles per year by all-electric cars and less than 5,000 all-electric miles per year for plug-in hybrids. Using an increased average of 11,000 miles per year, the attached spreadsheet (*Comparison of Kansas AFV Fee and Taxes*) calculates the total amount paid in fees and state taxes for charging at

home and charging in public. For home charging, the data shows that a fee of \$75-100 per year for electric-only vehicles is comparable to the motor fuel taxes for a similar gasoline vehicle. For drivers using retail chargers, the combined fees for all categories are high. For plug-in hybrids, and more especially, standard hybrid vehicles that cannot be fueled using electricity, the proposed \$75 fee results in fees plus motor fuel taxes that are much higher than for similar combustion engine vehicles. This amounts to a disincentive to drive these fuel-saving vehicles in Kansas, a state where consumer choice is highly respected.

Compared with fees for electric vehicles that have been instituted by other states, (see attached worksheet *Electric Vehicle Fees by State* and the National Conference of State Legislators link below) the amounts proposed in SB 189, \$75 for hybrid vehicles and \$150 for all-electric vehicles, is higher than most.

We understand that the current model of collecting motor fuel taxes to fund the State Highway Fund does not adequately address infrastructure usage for these newer types of vehicles. However, any proposed fees or other changes to the State Highway funding model should consider that all on-road vehicles are becoming more and more fuel efficient, regardless of their powertrain or ability to plug in.

The attached spreadsheet is helpful in determining the fairness of any proposed registration fees for the varying types of vehicles available today. However, given the changes in technology for transportation, **we recommend moving to a funding system based upon annual vehicle miles traveled (VMT) and gross vehicle weight (GVW) rating.**

The Federal Highway Administration just last month authorized pilots on VMT-based highway funding and other road usage funding mechanisms. Given that electric vehicles comprise a tiny portion of vehicles on Kansas roads today, this is the wrong time to pass precedent-setting legislation that may suppress and penalize adopters of plug-in electric vehicles.

As the Transportation Committee moves forward with a new plan for registration fees or State Highway Funding, we volunteer to provide resources and guidance toward the establishment of any new fees and to take part in any working group on the topic.

Thank you for the opportunity to address the Committee.

#### REFERENCES AND ADDITIONAL RESOURCES

Idaho National Laboratory: *Plug-in Electric Vehicle Road Tax Analysis*

<https://avt.inl.gov/sites/default/files/pdf/phev/PEVandPHEVeVMTforIAHD.pdf>

Excel workbook: *Kansas AFV Fee and Taxes*

Contact [tami@metroenergy.org](mailto:tami@metroenergy.org) to receive the Excel worksheet with calculations present

National Conference of State Legislatures: *New Fees on Hybrid and Electric Vehicles*

<http://www.ncsl.org/research/energy/new-fees-on-hybrid-and-electric-vehicles.aspx>

FHWA Awards More Than \$10 Million to Seven States to Test New Ways to Fund Highways

<https://www.fhwa.dot.gov/pressroom/fhwa1902.cfm>



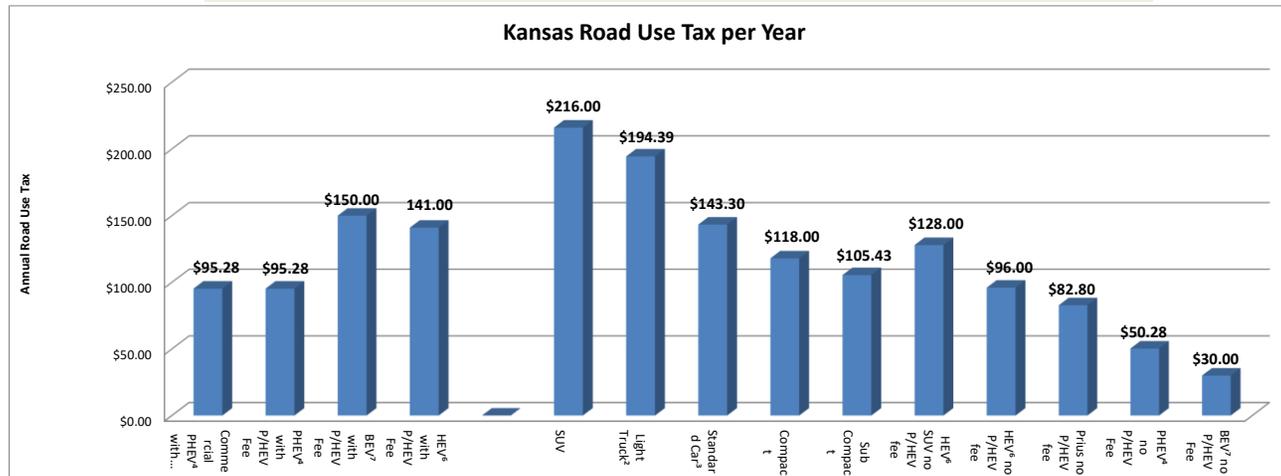
## Comparison of KS AFV Fee and Taxes

### HOME ELECTRICITY RATES

Kansas P/HEV Fees and Taxes			
Miles per year <sup>1</sup>	11,000	Cost per kWh (KS KCP&L home average)	\$0.0946
Miles per kWh	3.5	Total Cost of electricity	\$297.31
kWh per year	3,143	Electricity Sales Tax <sup>5</sup>	0.00%
		Kansas Motor Fuel Excise Tax per gallon	\$0.2400

Proposed Fee Structure (P/HEVs only--other vehicles not affected)	P/HEV Fee	Fuel Excise Tax plus Electricity Sales Tax	Total Fees and Taxes	Highway Road Fees and Taxes per Mile	
Commercial PHEV <sup>4</sup> with P/HEV Fee	\$75.00	\$20.28	\$95.28	\$0.009	
PHEV <sup>4</sup> with P/HEV Fee	\$75.00	\$20.28	\$95.28	\$0.009	Compatible with current fees on sub-compacts
BEV <sup>7</sup> with P/HEV Fee	\$150.00	\$0.00	\$150.00	\$0.014	high compared to compact class, which most BEVs are; HEVs range widely
HEV <sup>6</sup> with P/HEV Fee	\$75.00	\$66.00	\$141.00	\$0.013	

Current Fee Structure	Registration Fee	Gallons/Year	Gasoline Taxes & Registration Fee	Highway Road Fees and Taxes per Mile	MPG
SUV	\$40	733.3	\$216.00	\$0.020	15
Light Truck <sup>2</sup>	\$40	643.3	\$194.39	\$0.018	17.1
Standard Car <sup>3</sup>	\$30	472.1	\$143.30	\$0.013	23.3
Compact	\$30	366.7	\$118.00	\$0.011	30
Sub Compact	\$30	314.3	\$105.43	\$0.010	35
HEV <sup>6</sup> SUV no P/HEV fee	\$40	366.7	\$128.00	\$0.012	30
HEV <sup>6</sup> no P/HEV fee	\$30	275.0	\$96.00	\$0.009	40
Prius no P/HEV fee	\$30	220.0	\$82.80	\$0.008	50
PHEV <sup>4</sup> no P/HEV Fee	\$30	84.5	\$50.28	\$0.005	37
BEV <sup>7</sup> no P/HEV Fee	\$30	0.0	\$30.00	\$0.003	



<sup>1</sup> Average mileage for LEAF drivers in GA for 2011-2014 is 10,268 miles/year (Nissan North America)

<sup>2</sup> US DOT Bureau of Transportation Statistics - Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles

<sup>3</sup> US DOT Bureau of Transportation Statistics - Table 4-23: Average Fuel Efficiency of U.S. Light Duty Vehicles

<sup>4</sup> PHEV - Plug-In Hybrid Electric Vehicle similar to Chevrolet Volt or Ford Fusion Energi; The Chevy Volt combined fuel economy is estimated by USEPA at 60 mpg (mpg "equivalent") with 95

<sup>5</sup> mpg in electric---only mode and 37 mpg when running primarily on gasoline. According to data from the US DOE EV Project, Volts are driven 12,238 miles per year with 9,112 electric miles and 3,126 gasoline miles.

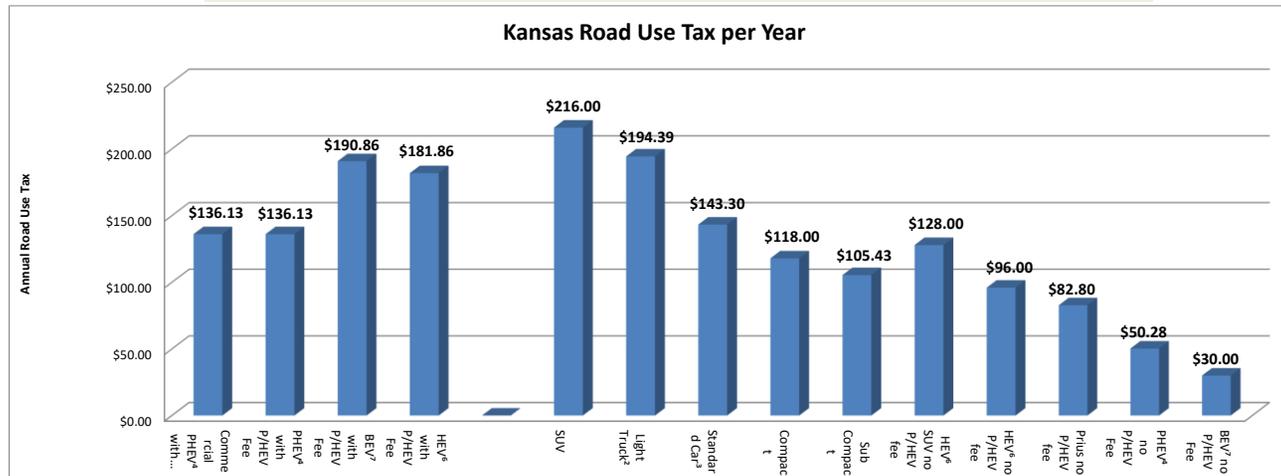
<sup>6</sup> KS Retail Sales tax: 6.5% / none for home electricity

<sup>7</sup> HEV - Hybrid Electric Vehicle with no plug-in capability; SUV MPG is based on reports from KC-area deployments

<sup>8</sup> BEV - Battery Electric Vehicle similar to Nissan LEAF or BMW i3

## Comparison of KS AFV Fee and Taxes RETAIL CLEAN CHARGE NETWORK RATES

Kansas P/HEV Fees and Taxes					
Miles per year <sup>1</sup>	11,000	Cost per kWh (KS Clean Charge Network)		\$0.2000	
Miles per kWh	3.5	Total Cost of electricity		\$628.57	
kWh per year	3,143	Electricity Sales Tax <sup>5</sup>		\$40.86	
		Kansas Motor Fuel Excise Tax per gallon		\$0.2400	
Proposed Fee Structure (P/HEVs only--other vehicles not affected)					
	P/HEV Fee	Fuel Excise Tax plus Electricity Sales Tax	Total Fees and Taxes	Highway Road Fees and Taxes per Mile	
Commercial PHEV <sup>4</sup> with P/HEV Fee	\$75.00	\$61.13	\$136.13	\$0.012	
PHEV <sup>4</sup> with P/HEV Fee	\$75.00	\$61.13	\$136.13	\$0.012	Compatible with current fees on standard car
BEV <sup>7</sup> with P/HEV Fee	\$150.00	\$40.86	\$190.86	\$0.017	high compared to compact class, which most BEVs are; HEVs range widely
HEV <sup>6</sup> with P/HEV Fee	\$75.00	\$106.86	\$181.86	\$0.017	
Current Fee Structure					
	Registration Fee	Gallons/Year	Gasoline Taxes & Registration Fee	Highway Road Fees and Taxes per Mile	MPG
SUV	\$40	733.3	\$216.00	\$0.020	15
Light Truck <sup>2</sup>	\$40	643.3	\$194.39	\$0.018	17.1
Standard Car <sup>3</sup>	\$30	472.1	\$143.30	\$0.013	23.3
Compact	\$30	366.7	\$118.00	\$0.011	30
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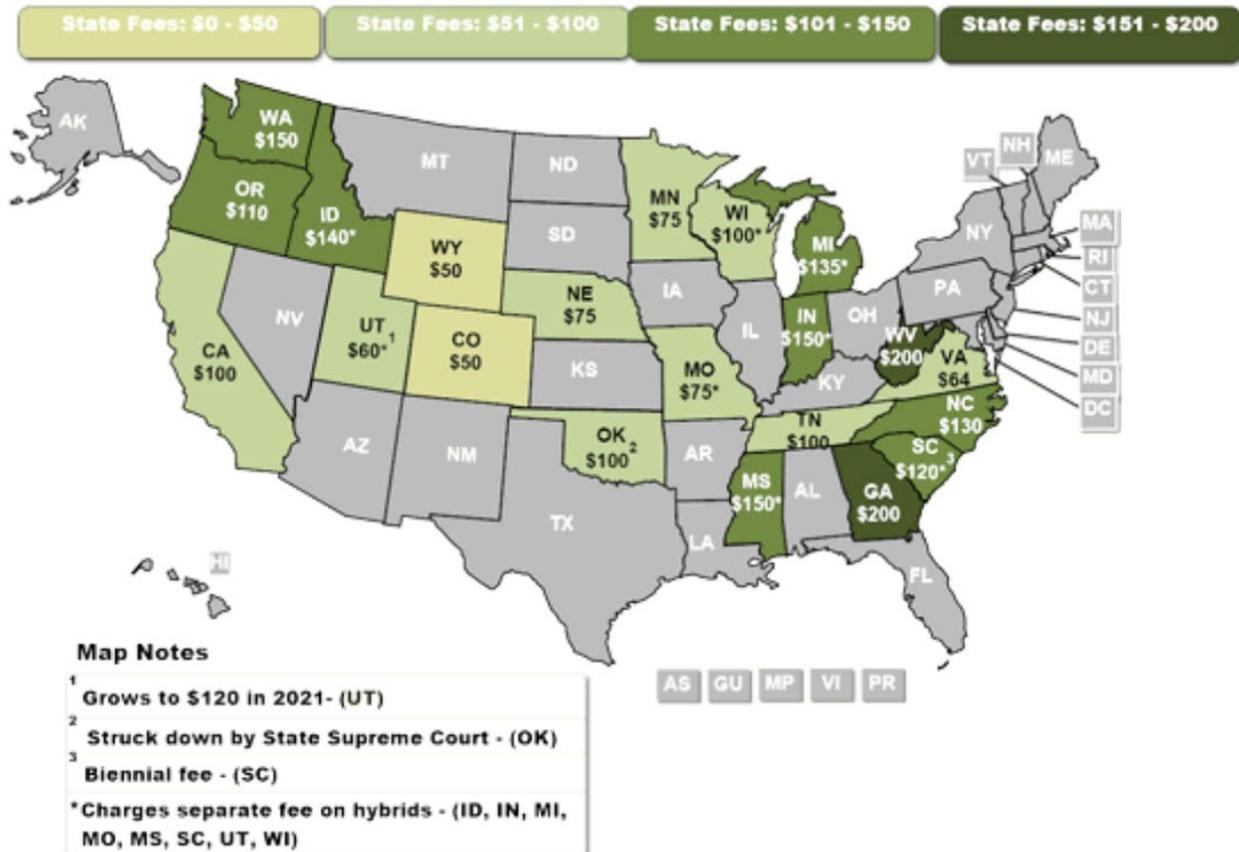
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<sup>6</sup> KS Retail Sales tax: 6.5%

<sup>7</sup> HEV - Hybrid Electric Vehicle with no plug-in capability; SUV MPG is based on reports from KC-area deployments

<sup>8</sup> BEV - Battery Electric Vehicle similar to Nissan LEAF or BMW i3

## Electric Vehicle Fees by State



The following states require hybrid and/or plug-in vehicle owners to pay annual registration surcharges, according to the National Conference of State Legislatures. Most state fees are lower than those proposed by Kansas SB 189. Only Georgia and West Virginia have fees higher than the current proposal for Kansas.

- California: \$100 BEV for model year 2020 or later beginning January 1, 2021
- Colorado: \$50 PEV
- Georgia: \$300 commercial/\$200 non-commercial PEV
- Idaho: \$140 PEV, \$75 PHEV
- Indiana: \$150 BEV, \$50 PHEV/HEV
- Michigan: \$135 BEV (\$235 for heavy-duty BEV), \$47.50 plus gas tax HEV (\$117.50 for heavy duty HEV)
- Minnesota: \$75 BEV
- Mississippi: \$150 BEV, \$75 HEV
- Missouri: \$75 AFV, \$37.50 PHEV
- Nebraska: \$75 PEV
- North Carolina: \$130 PEV
- Oregon: \$110 P/HEV
- South Carolina: \$120 biennial fee EV, \$60 biennial fee HEV
- Tennessee: \$100 EV
- Utah: \$60 EV, \$10 HEV, \$26 PHEV
- Virginia: \$64 EV
- Washington: \$100/\$150 if the car can run for 30 miles on battery power
- West Virginia: \$100 P/HEV, \$200 EV
- Wisconsin: \$75 HEV, \$100 EV
- Wyoming: \$50 PEV

Note: AFV – alternative fueled vehicle, BEV – battery electric vehicle, EV – electric vehicle, HEV – hybrid electric vehicle, PEV – pluggable electric vehicle, PHEV – pluggable hybrid electric vehicle

Information and graphic retrieved from National Conference of State Legislatures *New Fees on Hybrid and Electric Vehicles* - <http://www.ncsl.org/research/energy/new-fees-on-hybrid-and-electric-vehicles.aspx>