



March 4, 2016

Hon. Tom Lackey
Assembly Member, 36th District
Room 4009, State Capitol
Sacramento, California 95814

Dear Assembly Member Lackey:

You asked us to estimate the effects of including transportation fuels in California's cap-and-trade program on: (1) the retail price of gasoline and diesel fuel and (2) the additional amount motorists are spending on gasoline and diesel fuel as a result of the program. Our responses to your questions are provided below.

Price Per Gallon for Gasoline Up 11 Cents and Diesel Fuel Up 13 Cents Due to Cap-and-Trade. We estimate that including transportation fuels in the cap-and-trade program has added roughly 11 cents per gallon to the current retail price of gasoline and 13 cents per gallon to the current retail price of petroleum-based diesel fuel. (Over 90 percent of diesel fuel consumed in California is petroleum-based and the remainder is biodiesel and renewable diesel.) To obtain this estimate, we used a method for inferring fuel price increases from cap-and-trade allowance prices and the carbon content of fuels. We assume that retail gasoline prices increase by 8 cents to 9 cents per gallon and diesel prices increase by about 10 cents per gallon for every \$10 per metric ton of carbon dioxide equivalent that an allowance costs. Since allowances are currently selling for more than \$10 per ton—allowances sold for \$12.73 per ton at the most recent auction held in February 2016—we estimate price per gallon increases are about 11 cents for gasoline and about 13 cents for diesel. Importantly, based on our review of research, we assume that the burden of additional fuel costs will fall completely on motorists. Our estimate incorporates some other minor adjustments and assumes that the program does not affect fuel prices through other channels. If you would like more background on the state's cap-and-trade program and some of the major considerations when evaluating the effects of cap-and-trade on fuel prices, please see the attached August 2014 letter that we sent to Assembly Member Henry Perea regarding transportation fuels and the cap-and-trade program.

Motorists Spend About \$2 Billion More Annually for Transportation Fuel. Assuming the price effects identified above remain constant throughout 2016, we estimate that motorists (including households and businesses) will spend about \$2 billion more on gasoline and diesel fuel as a result of the program. This estimate assumes motorists will purchase about 15 billion gallons of gasoline and about 3.5 billion gallons of diesel in 2016—roughly equal to the amount purchased in recent years. We also assume the higher prices encourage relatively minor reductions in the amount of fuel purchased, compared to the amount that would have been purchased without the program.

Including transportation fuels in the cap-and-trade program imposes additional costs on motorists, but it also generates a significant amount of state revenue that can be used for programs that provide direct benefits to consumers and businesses. The Governor's 2016-17 budget includes a \$3.1 billion cap-and-trade expenditure plan for programs intended to reduce greenhouse gases. Some of these programs will provide financial benefits (such as electric vehicle rebates) to certain households affected by the increased fuel prices discussed above. (For more detail on cap-and-trade expenditures, see our February 2016 report *The 2016-17 Budget: Resources and Environmental Protection*.)

Please feel free to contact Ross Brown of my staff (916) 319-8345 or Ross.Brown@lao.ca.gov if you need additional information.

Sincerely,

Mac Taylor
Legislative Analyst

Enclosure