## **EV Dreams, Rural Nightmares**

Last year's snowstorms and frigid weather in the Upper Midwest turned EVs into two-ton paperweights.

By Jonathan Lesser, Ph.D.

t seems the electric vehicle bloom has come off the rose. Sales are slowing down, even in EV-mad California, and automakers are hemorrhaging money. Last year, Ford's "Model E" division lost \$4.7 billion—almost \$65,000 for each of the 73,000 EVs it sold. By comparison, General Motors was a standout success: its EV division lost only \$1.7 billion, \$22,000 per EV sold. As for Tesla, which sells about twothirds of all EVs, it collects billions of dollars by selling EV "credits" to other manufacturers.

It's not rocket science to understand why sales of EVs are slowing. In California, the state that accounts for almost half of all EV sales in the country, many of the wealthy enthusiasts who purchased EVs as their second, third, or fourth vehicle won't be buying another one. As for less wealthy drivers, EVs still cost an average of \$10,000 more than internal combustion models.

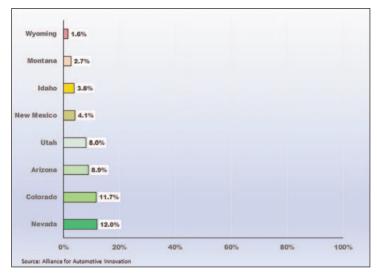
EV batteries are like Goldilocks: they don't like weather that is too hot or too cold because extreme temperatures affect the chemical reactions that create electric charge. Last winter's snowstorms and frigid weather in the Upper Midwest turned EVs into two-ton paperweights, with batteries dying out

as hapless drivers waited in long lines to recharge them.

There's also the impracticality of EVs which can only travel a few hundred miles before needing to be recharged. The battery on an "extended range" Ford Lightning, for example, might last for only 100 miles if hauling a trailer loaded with hay or critters. People who live in rural areas in the West must often drive long distances. Add in a winter snowstorm and below-zero weather, and relying on an EV in a desolate area



ABOVE: EV batteries are like Goldilocks: they don't like weather that is too hot or too cold. Below: Percentage of EV sales of new cars and light trucks in Rocky Mountain states.



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becomes a matter of life and death.

Despite, or perhaps because EV sales are slowing, many states are accelerating efforts to make EVs mandatory. Some state officials have even claimed that doing so will improve customer choice. That's like Henry Ford claiming that offering only cars painted black "opens" customers to a rainbow of colors. To hasten the EV mandate, 18 states have adopted California's "Advanced Clean Car II" rules. Out West, those states include Oregon and Washington, as well as Nevada,

Colorado and my home state of New Mexico. Starting with model year 2026, the ACC II rules require that 35 percent of all new cars and light trucks sold be EVs. The sales percentage increases rapidly each year, reaching 100 percent in 2035, although some states, including New Mexico, will not implement the ACC II rules until model year 2027, when 43 percent of all new sales must be EVs.

By comparison, last year EVs accounted for less than 10 percent of all new vehicle sales in most Rocky Mountain states. The exceptions were Colorado and Nevada, where sales were over 10 percent, thanks to buyers in Denver and Las Vegas. Even in those two states, to meet ACC II goals, the percentage of EV sales will have to more than triple in just two years.

Although EVs might be fine choices for wealthy city dwellers who don't need them for long trips, consumers and businesses in rural areas just aren't buying EVs. While there are EV chargers along interstate highways and some other major roads, once you move off those roads, charging stations are rare. For anyone who must drive hundreds of miles on often unpaved back roads, charging stations are nonexistent. The

combined impacts of high purchase prices, range-sapping impacts of heavy loads and extreme weather, and lack of charging stations are a toxic combination for rural consumers. Barring some technological miracle, that will not change.

The ACC II rules cannot force consumers to purchase EVs. However, dealer franchise agreements with manufacturers will force new-car dealers to purchase increasing shares of EVs and reduce their allotments of internal combustion vehicles their customers want to

buy. As Travis Hicks, managing partner for several dealerships in Roswell, N.M., says: "Dealers like me will be forced to buy EVs I can't sell, and I won't be able to sell the vehicles my customers want to buy. No business can survive that. Sure, my customers will be able to drive over to Texas, but those dealers will be able to charge more. And that means prices for used cars will increase. The end result will be that customers who might have bought a new, cleaner car will hold on to their older, more polluting ones. How is that supposed to help the environment?"

In other words, the law of unintended consequences will rear its head. Shuttering dealerships will mean lost jobs and, especially in rural areas, lost community support. It will mean car owners will have to drive further to get their vehicles serviced, which will increase costs and, again, increase pollution.

The final irony of the ACC II rules, along with other mandates to force consumers into EVs, is that for the foreseeable future, most of these vehicles will be charged with electricity generated from coal and natural gas. Stellantis (formerly Dodge) developed an especially creative solution to limited range for its new Ram pickup: when the battery runs out, a gasoline engine kicks in to recharge the battery. So much for zero emissions. Moreover, the huge quantities of materials required to manufacture EVs—some 500,000 pounds of materials for a single EV battery—means a lot more pollution, not less. Several manufacturers, including VW and Volvo, have studied the impacts of EV manufacturing on carbon emissions and found that they must be driven 60,000 to 70,000 miles before they achieve "break even" with new internal combustion vehicles.

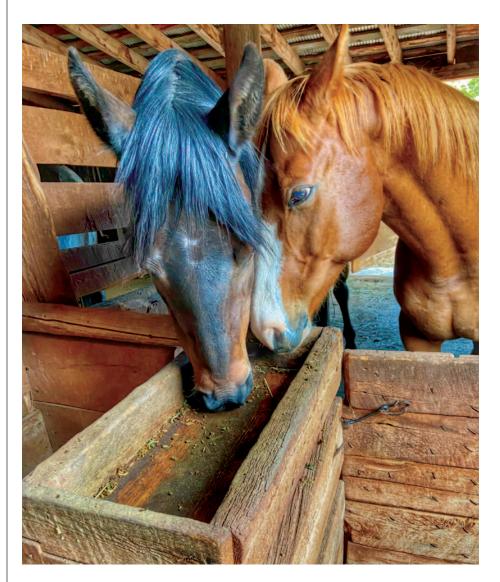
Mandates for EVs like the California ACC II rules aren't about saving the planet from "climate change." They are about control. Control over the farmers and ranchers who feed the nation. Control over the workers—plumbers, electricians, factory workers and so forth—who make modern life possible. Control over ordinary individuals and small businesses which are the backbone of the country.

Ultimately, these mandates are about a small group of wealthy, Ivy-league-educated elites who want to demonstrate their moral and intellectual "superiority" and create a world to *their* liking...everyone else be damned. Whether they succeed remains to be seen.

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## **Kinship**

Tenderness between a bay and a sorrel. Words & photo by Brenda Hampton.



way, the bay mare, was bred by the Agars at Durbin Creek Ranch. The sorrel gelding is Kev. All our horses like Sway, but obviously Kev likes her the most. They are both quarter horses. They've been together for a couple of years and when they came into the barn on a recent day, they headed for the first feeder and began munching away together. Sway and Kev were completely comfortable eating like that—even though that's not always the case!

The Hampton ranch is nestled at the base of Mahogany Butte out of Ten Sleep, Wyo.