Successful electric bus pioneers overcome challenges of early adoption

By Matt Casale, U.S. PIRG Transform Transportation campaign director

Electric buses are a relatively new technological advance. And, like every new mode of transportation, electric buses have faced bumps and hurdles, and a fair share of skeptics.

Take the car, for example—the staple of modern American transportation. Today, around 88 percent of Americans own cars. But in the late 19th and early 20th centuries, when the technology was new, people weren’t immediately sold. According to a 1930 article by Alexander Winton in the Saturday Evening Post, onlookers often taunted pioneering drivers with cries of “Get a horse!”

Early cars were noisy, unreliable, expensive and plagued by mechanical problems. It was also hard to gas up. The United States simply didn’t have the infrastructure needed for Americans to drive en masse. Over time, as people began to see the potential in these vehicles, and investors poured money into their development and production, the problems that had dogged the early cars were ironed out. Flash forward to 2019, and take a look at pretty much any drive way in America, and you’ll see how that turned out—for better or worse.

I don’t know of anyone yelling at early electric bus adopters to “get a diesel bus,” but electric buses certainly have their skeptics. Nascent electric buses have had some issues, like all new technologies do. However, user experiences indicate that those challenges are not insurmountable and are far outweighed by the benefits.
Natural Gas: 4.5 miles*
Diesel: 4 miles
Diesel Hybrid: 5 miles
Electric: 17 miles*

Distance Traveled by Transit Buses per Gallon of Diesel (*or Diesel-Equivalent)

Electric buses are 3 to 4 times more energy efficient than diesel or natural gas buses.

For example, King County Metro, the transit agency in the Seattle area, began testing electric buses in 2016. Metro’s service area covers a range of terrain, including rural areas, and dense urban and suburban corridors. In all of these settings, the buses have generally performed well, but with minor problems that, at first, gave the agency “a moment of pause.” In some instances, batteries have depleted faster than expected, and the buses have not been able to travel as far as advertised, particularly during the colder months.

But, despite the early performance challenges, King County Metro’s experience has been positive enough that it has decided to go all-in on electric buses. A big reason why: The agency includes the environmental and health benefits of buses in its evaluation of costs and benefits, estimating that the total societal cost over the life cycle of a 40-foot diesel bus is $121,000, vs. approximately $18,000 to $19,000 for a 40-foot electric bus using renewable energy.

Electric buses are a new technology. Will there be challenges in implementing the new technology? Of course. Are those challenges insurmountable? No. And the public health and environmental benefits of switching away from diesel to zero-emissions buses should motivate us even more to overcome whatever challenges arise. Consider this: The Chicago Transit Authority estimates that each of its electric buses will save the city around $55,000 every year in avoided healthcare expenses. That big number sounds great, but it actually undersells the benefit. When you think about it in terms of money, it almost sounds like some kid gets his asthma treatment paid for. It’s better than that. Instead, that kid doesn’t have asthma.

School buses are going electric, too. The state of Massachusetts sponsored a pilot program that designated one electric bus to each of three school districts, and their performance was measured over the course of a year. While the buses provided significant greenhouse gas and air pollution reductions, they had mechanical problems and failed to deliver the fuel and maintenance cost savings expected.

Despite the challenges, all three school districts in Massachusetts chose to keep their electric buses. On the other side of the country, Twin Rivers Unified School District outside of Sacramento has had a different experience. Its buses have experienced few problems and saved 75 to 80 percent on fuel costs (largely due to very favorable utility rates), exceeding the district’s most optimistic expectations. Early success allowed Twin Rivers to scale up its program, and the district now runs a fleet of 25 electric buses.

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ConnPIRG’s Mission
When consumers are cheated or the voices of ordinary citizens are drowned out by special interest lobbyists, ConnPIRG speaks up and takes action. We uncover threats to public health and well-being and fight to end them, using the time-tested tools of investigative research, media exposés, grassroots organizing, advocacy and litigation. ConnPIRG’s mission is to deliver persistent, results-oriented public interest activism that protects consumers, encourages a fair, sustainable economy, and fosters responsive, democratic government.

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NEWS BRIEFS

BAN ROUNDUP

Rather than require warning labels for Roundup, Trump administration moves to prohibit them

Does the public have a right to know that researchers for the World Health Organization say the widely used herbicide Roundup is a probable carcinogen?

Not according to the Trump administration. On Aug. 9, the administration’s Environmental Protection Agency (EPA) announced it will prohibit companies from putting warning labels on products containing glyphosate, the main active ingredient in Monsanto’s Roundup—even with mounting evidence that glyphosate is linked to non-Hodgkin’s lymphoma.

“It’s past time to ban Roundup until and unless it’s proven safe,” said our national network’s Ban Roundup Campaign Director Kara Cook-Schultz. “But as long as it remains on the

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shelf, consumers have the right to know that glyphosate is potentially dangerous.”

As we keep working toward a ban on Roundup in Connecticut and across the country, our members and supporters are also holding the EPA accountable. So far, nearly 10,000 people have joined our national network in calling on the EPA to require warning labels on products containing glyphosate.

HOLD THE ANTIBIOTICS, WENDY’S

We gave Wendy’s a D+ on antibiotic use policies and practices.

What can a fast food chain do to ensure that antibiotics work when we or our loved ones need them the most? Plenty. But many, including Wendy’s, are not doing enough.

On Oct. 31, ConnPIRG released the fifth annual “Chain Reaction” scorecard, authored by our research partner, U.S. PIRG Education Fund, and NRDC, The Antibiotics Resistance Action Center, Consumer Reports, Food Animal Concerns Trust and Center for Food Safety. The scorecard finds that most of the top fast food chains in the U.S. are selling beef from cattle raised with routine antibiotic use—with Wendy’s earning a D+.

“The bottom line is we can’t afford to lose life-saving antibiotics to produce slightly cheaper beef,” said our Stop the Overuse of Antibiotics Campaign Director Matt Wellington to CBS News. Our report also earned coverage by NBC News, ABC Action News, Wired and Fox Business.

To keep our life-saving medicines working when we need them, we’re calling on Wendy’s and other fast food chains to phase antibiotics out of their beef supply chains.

PIRG CONSUMER WATCHDOG

Buckle up: AutoNation is selling unrepaired vehicles subject to recalls for safety defects

Our research partner’s report finds that America’s largest auto retailer is selling used vehicles with unrepaired safety recalls that make them dangerous to drivers, passengers and others who share the roads.

On Oct. 15, ConnPIRG released “Unsafe Used Cars for Sale,” a report by our research partner U.S. PIRG Education Fund and the Consumers for Auto Reliability and Safety Foundation, which surveyed AutoNation dealerships in 16 metro areas across 12 states. The report found that 1 in 9 cars for sale at these dealerships have unrepaired defects.

“These recalls range from explosive Takata airbags to steering malfunctions to seat belt problems that could put the lives of drivers at risk even before the purchaser got home,” PIRG Consumer Watchdog Adam Garber told CBS This Morning. “AutoNation advertises that these processes are worry-free, but they’re not. If I have a car with a Takata airbag in it—that’s something I’m probably pretty worried about.”
Not one, not two, but five more states ban single-use plastic bags

The number of statewide plastic bag bans in the U.S. has tripled this year, with Maine, Vermont, Connecticut, Delaware and Oregon adding themselves to the list.

The states joined California and New York, requiring retailers and grocers to replace single-use plastic bags them with reusable or paper ones. Americans currently throw away 100 billion plastic bags every year, or 300 bags per person. We use these bags for just a few minutes, but they persist in the environment and impact public health for centuries to come.

“These states are leading the country in addressing plastic pollution,” says the director of our Beyond Plastic campaign, Alex Truelove. “Clearly, momentum is building on this issue. But these states cannot tackle our plastic pollution crisis alone.”

Together with our national network, ConnPIRG is running campaigns to ban single-use plastic bags and other harmful plastics across the country.