Clean energy boasted several wins during this year’s midterm elections. These include Nevada moving to produce half of its power from renewable energy sources, and newly elected governors in a handful of states that include Illinois, Colorado and Maine entering office on the promise of robust clean energy portfolios. But one important questions remains: How will these plans take into account the needed growth of cleaner transportation in the U.S.?

Last month the U.S. reached an important milestone: Americans bought more than 1 million cumulative electric vehicles. This brings the U.S. auto market a long way from when the first mass-market EVs were introduced in 2010. But for a country addicted to cars, the reality is that EVs still comprise under 2 percent of new domestic vehicle sales.

A report released in October by the Intergovernmental Panel on Climate Change — a group of leading scientists convened by the United Nations — declares that a radical transformation by as early as 2030 is needed to avoid the most
devastating impacts of climate change. In the U.S., transportation is now the largest source of planet-warming emissions, and its portion continues to grow. An accelerated transition to EVs — including battery, plug-in hybrid and hydrogen fuel cell electric vehicles — is critical to help prevent climate disaster.

To make matters more pressing, the Trump administration is proposing to weaken the federal fuel economy and emissions standards for cars and light trucks, as well as remove the authority of states to adopt electric vehicle sales mandates — a move that has 20 states, major cities, automakers, attorneys general, and other groups up in arms. This policy step backward also means that the U.S. will be slow to decarbonize the transport sector, putting it on a path to miss the transformation called for by the IPCC report.

The good news is that the global automotive industry, including U.S. automakers, is well-positioned to ramp up EV sales. They have the technology at hand and models ready to go, with major automakers planning to invest up to $255 billion on electric vehicles through 2023. Lithium-ion battery costs — a third of the cost of an EV — are on a steady downward trajectory, dropping nearly 80 percent between 2010 and 2017. And even though car buyers favor better fuel economy and U.S. automakers are investing in EVs, automakers (other than Tesla) are making a minimal effort to promote them.

So, what can be done? Likely the greatest challenge is to increase consumer awareness. Research shows the vast majority of Americans have only the vaguest awareness of EVs. Public knowledge has stayed stagnant in the past few years — even in California, where public chargers are being rolled out, incentives are generous, and political leaders continue to tout the cars. Public awareness campaigns are underway, such as those by Veloz and ‘Drive Change. Drive Electric’, but they are only just getting started on mobilizing consumer interest.

The second challenge is getting a more diverse set of EV models into the showroom. Automakers need to electrify SUVs, minivans, and pickup trucks, which Americans are increasingly flocking to. Automakers also need to work with public EV awareness campaigns and dealerships to give potential buyers more information on how electric vehicles work.

Monetary incentives are also critical, in order to drive down the costs of EVs. Research shows that the importance of incentives grows as the market moves beyond early adopters who are more bullish about the technology to those who
are driven by cost factors. The federal tax credit of up to $7,500 is now being phased out for some automakers (because of a cap of 200,000 vehicles per company), essentially penalizing those automakers leading on EVs. This calls for innovative state and regional incentives — the kind that can be mobilized by newly elected state leaders that are serious about their state’s commitment to clean energy.

Examples include California’s Low Carbon Fuel Standard, a policy that drives down the carbon intensity of fuels using market mechanisms. Revenue generated from the standard will be used to create point-of-purchase incentives of about $2,000 per EV. Another example is revenue-neutral “feebates”, which reward buyers of EVs and other energy-efficient vehicles with rebates and impose a fee on “gas guzzlers” — a tool adopted in a few European countries but not yet in the U.S. Lyft, Uber and Maven are offering drivers incentives to use EVs — which is a way to accelerate their sales, as well as increase awareness amongst passengers.

Non-monetary incentives have also proven effective and can be very instrumental in accelerating the second million EVs. These incentives are local in nature and can be implemented by cities; they include parking preferences for those driving EVs and granting preferential access to freeways.

In short, the sale of the one-millionth EV should serve as a launch pad for the U.S. to ramp up the transition to electric vehicles. This will require a concerted effort from automakers, government and advocacy groups to increase awareness of EVs and encourage their adoption through financial incentives and other benefits. Failure to do so will put the U.S. auto industry at a global disadvantage, slow the cleanup of local pollution, and help usher in potentially catastrophic climate impacts. We don’t have time to waste.

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