ENERGY INNOVATION
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Advanced Clean Cars II: Electric vehicles can pave the way for clean air and a growing U.S. economy

California's recent Advanced Clean Cars II rule (ACC II) requires increasing sales of new zero-emission vehicles (ZEVs) starting in 2026 up to 100 percent ZEV sales in 2035. Other states can adopt this state-led ZEV standard under Section 177 of the U.S. Clean Air Act. Energy Innovation Policy & Technology LLC® found adoption by all 16 "177 States" would bring significant benefits to their residents: consumer savings, cleaner air, and new jobs.

VEHICLE STANDARDS WILL DRIVE EV ADOPTION AS TAX CREDITS FADE

Energy Innovation® used our free and open-source Energy Policy Simulator model to study ACC II's impact on greenhouse gas (GHG) emissions, the economy, and public health, accounting for federal Inflation Reduction Act (IRA) incentives.

The modeling finds the IRA's electric vehicle (EV) tax credit could boost EV sales as high as 57 percent in 2030, but sales could fall to 42 percent in 2033 when the tax credit expires. Alternatively, if all 16 "177 States" that currently follow California emissions standards adopt ACC II, EVs could make up 66 percent of the U.S. car market in 2035 and 81 percent in 2050.

By adopting ACC II, these 177 States could also reduce planet-heating GHG emissions by a cumulative 1,310 million metric tons of carbon dioxide-equivalent gases (MMT CO_2e) by 2050—equivalent to the emissions from 13 coal power plants running through 2050.

AS EVs COSTS FALL, CONSUMER SAVINGS RISE

Due to federal tax credits and falling battery prices, most EVs are now cheaper off the lot than their gas-powered counterparts and are getting even more affordable. The fuel and maintenance costs of EVs are 60 and 40 percent lower respectively than gas vehicles. As a result, states that promote EV sales can offer their residents significant cost savings. If all 177 States adopt ACC II, households across the U.S. could save an average of $238 every year, with higher savings in states that offer their own EV incentives. For example, households in New Jersey could save an average of $682 every year when the state implements the ACC II rule.

ACC II adoption by all 16 states could also create 300,000 new domestic jobs by 2050, driven by increased production of domestically sourced EVs and respending of fuel and maintenance savings. These job gains could be even larger depending on the impact of IRA tax credits for battery and vehicle manufacturers.

EV ADOPTION CUTS POLLUTION, BENEFITTING PUBLIC HEALTH

While fuel-powered vehicles spew toxic exhaust, EVs are powered directly by batteries. As a result, they do not emit climate- or health-harming pollution.

Our modeling finds that 177 States' adoption of ACC II could prevent more than 160,000 asthma attacks, 570,000 health-induced lost workdays, and 5,000 premature deaths by 2050. ACC II adoption will especially benefit communities of color and low-income communities, as vehicle pollution is disproportionally concentrated in these communities.

ACC II WILL BENEFIT STATE RESIDENTS FOR DECADES TO COME

ACC II will provide the largest benefit to residents in states that adopt the rule. As more people in these states buy EVs, they will save more money, reduce more local pollution, and save more lives. This table provides results for four example states:

Region	Avoided Asthma Attacks By 2050	Avoided Lost Workdays by 2050	Avoided Premature Mortality by 2050	Average Annual Household Cost Savings (2022 USD)	Cumulative Greenhouse Gas Emissions Abatement by 2050 (CO_2e)
MD	3,150	15,600	195	$642	48 MMT
NJ	6,110	30,900	368	$682	64 MMT
NM	213	972	13	$591	15 MMT
NY	10,900	57,900	606	$504	108 MMT

POLICIES TO CLEAN OUR ROADS

ACC II will get more EVs on the road in the coming years, but the rule will be more successful and equitable if combined with supporting policies.

Legislators should **fund means-based EV tax credits** to promote access to emissions-free vehicles for low-income consumers, ensuring that ACC II remains a progressive and equitable policy. Policymakers should also **incentivize EV infrastructure buildout**, establishing wide-spread charging networks to overcome any worry drivers may have about powering their vehicle. **Incentivizes for EV supply-chain manufacturing** can bring additional jobs to states.

Clean electricity standards will ensure EV charging is truly emissions-free, and policymakers should **proactively plan** for extensive distributed charging on the existing grid. Regulators should **streamline interconnection and EV charging upgrades** to support grid reliability. Lastly, states should **update building codes** and allow local stretch codes to ensure building stock is compatible with EV charging

As vehicle markets pivot to EVs, states that adopt ACC II and supporting policies will be best positioned to fully leverage all the benefits of EVs and IRA dollars. Any delay forgoes savings, cleaner air, and new jobs.