

# Driving progress: accelerating a zero-emission road transportation future

End of 2021 Update



# Drive Electric CAMPAIGN

Imagine a world where no one breathes unhealthy vehicle exhaust — where electric transportation of all types provides mobility for people and goods while delivering cleaner air, affordable transportation, better jobs, and a safer climate. The Drive Electric Campaign is an ambitious, philanthropy-powered global initiative to catalyze the transition to 100% electric road transportation at the speed and scale that the climate crisis requires.

Transportation is fundamental to modern life, yet our current system contributes over 20% of global energy-sector greenhouse gas emissions. For too long, diesel and gas-powered vehicles have kept fossil fuels flowing from pipeline to fuel tank — damaging our climate, distorting our politics, and directly contributing to air pollution that frontline communities in the U.S. have termed “diesel death zones.” In the second half of 2021, we saw inspiring growth, from e-buses in Latin America and electric delivery bikes in Delhi, to the planned phase-out of polluting vehicles in Chile in favor of electric transport, and proposals to do the same in the European Union and several U.S. states. Drive Electric supports a growing international network of more than 70 partners working to accelerate this transition and effect positive change on all modes.



Every region has its own considerations and specific contexts, but many of the solutions are common. This has allowed our campaign to efficiently share strategies and adapt solutions to overcome barriers and accelerate progress. By the end of 2021, Drive Electric partners across the world supported commitments and actions in both public and private sectors, motivating governments and businesses to adopt stronger policies, ramp up investments, and join international coalitions committed to 100% electrification of cars, buses, and trucks. The geographic scope of action continued to expand, with even more regions of the world joining in, including countries in Central and South America. While challenges remain, it is an unprecedented time for progress on clean transportation.

**We see accelerated uptake where our partners are most active. For example, sales of electric vehicles reached 17% in Europe, driven by strong regulations and incentives advanced by our partners. Electric car sales are averaging over 12% across the regions of Europe, China, the U.S., and India where Drive Electric has expansive partner networks.**

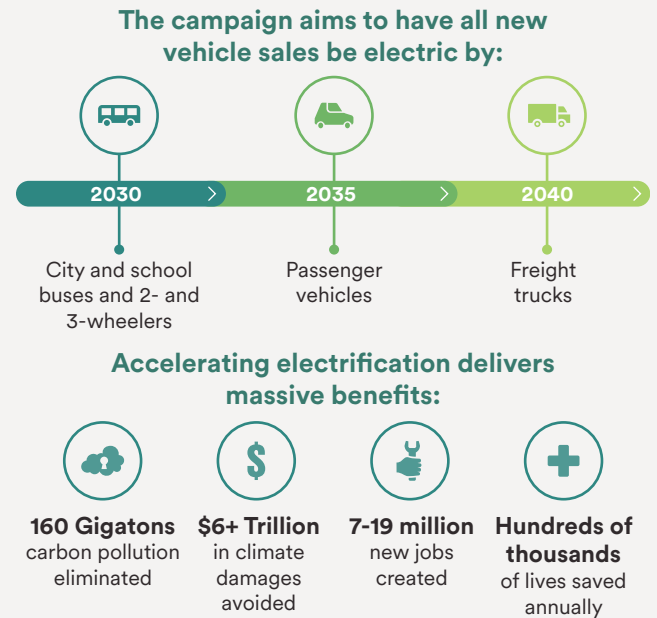
For all vehicle segments, newly secured commitments and policies are driving significant electric transportation uptake, and several regions are on the critical path to 100% emissions-free vehicles, consistent with Drive Electric goals.

The early months of 2022 have reminded us just how important this work is. Amidst the interlocking crises of a new UN report detailing the pace of climate destabilization, rising oil prices, and a devastating war funded and powered by fossil-fuels, we see more than ever how electrifying road transportation can help chart a new course.

## Defining Progress

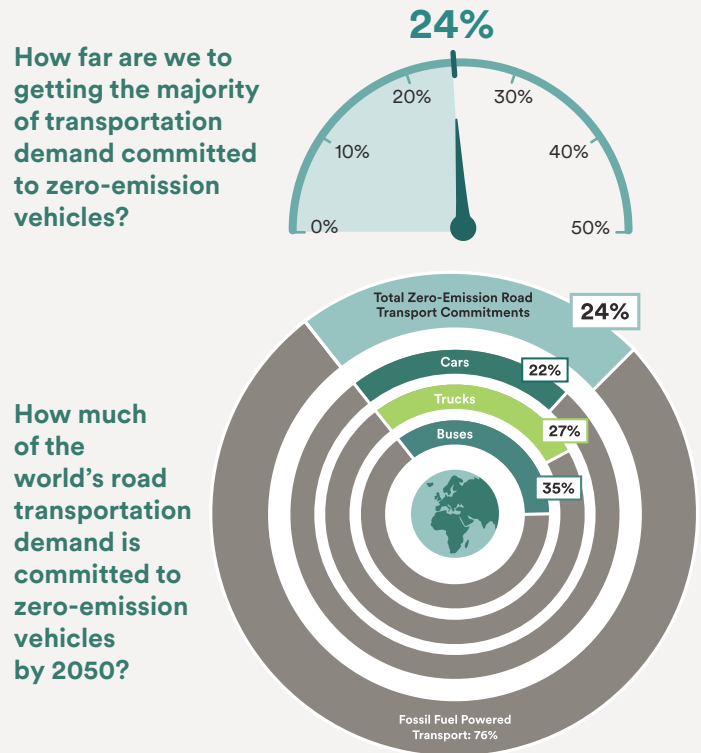
Drive Electric is a campaign to catalyze and accelerate the work of non-profit organizations, researchers, industry leaders, and policymakers toward 100% electric road transportation. **Our goal is to overcome the remaining barriers to scaled electric vehicle (EV) adoption and cross the global tipping point when electric vehicles will outcompete polluting combustion vehicles — in the next five years.** We track progress across major vehicle segments including cars, buses, and medium- and heavy-duty trucks. To reach the tipping point for a safe and healthy future powered by zero-emission vehicles (ZEVs), we are working to ensure that by the end of 2026 a majority of global transport demand, in the form of commitments, investments and meaningful policy action, is consistent with an all-electric future.

FIGURE 1: DRIVE ELECTRIC GOALS & BENEFITS



Source: Drive Electric technical analysis, completed in 2020 by ClimateWorks Foundation.

FIGURE 2: GLOBAL PROGRESS ON ZERO EMISSION VEHICLES



Cumulative commitments (signatories or policies) through end of 2021 to achieve 100% ZEVs by or before 2050 represent approximately 24.4% of global road transport by energy demand. Source: Drive Electric Campaign analysis using partner input, *IEA Energy Technology Perspectives 2017* data on transport energy use, and additional sources for state- and city-specific characteristics in the US, India, and China.

**DRIVE ELECTRIC PARTNERS**

**Advance Smart Government Policies**

Incentivizing electric transportation market growth through a combination of pollution regulations, government incentives, publicly supported infrastructure development, and more. Our partners develop targeted research, provide technical assistance, and engage with policymakers at all levels, from cities, to nations, to multinational partnerships.

**Engage Business Leadership**

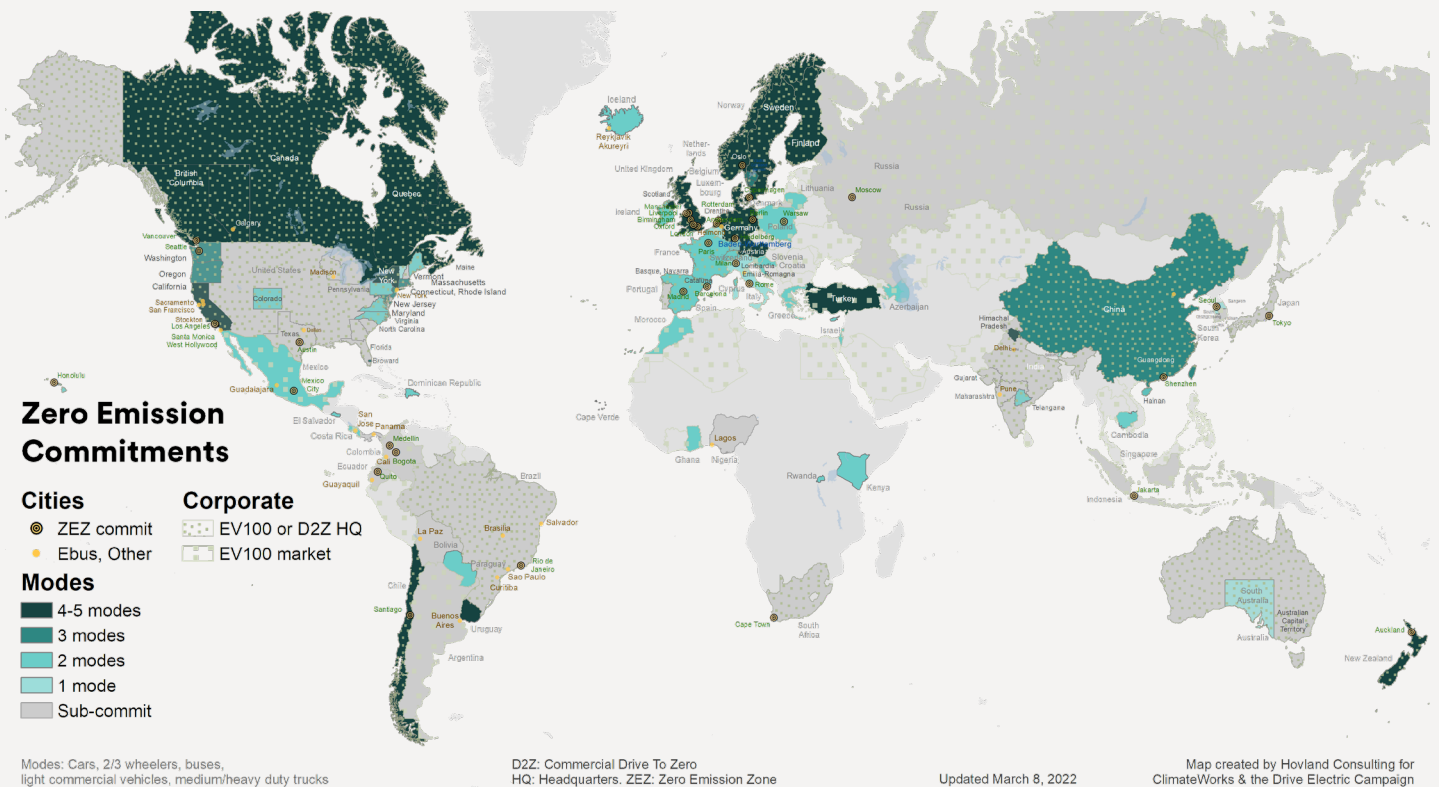
Across industries from vehicle manufacturers, infrastructure providers, corporate fleets, and investors, our partners are moving businesses to commit to increasing electric transportation investments and support smart government policies, which will drive more available and affordable products.

**Support Diverse People-powered Coalitions**

Increasing positive pressure to ensure accountability across government and businesses, and communicating the benefits of transportation electrification. With support from Drive Electric, coalitions have already secured dozens of smart government policies and business actions that are driving adoption of zero-emission transportation in key markets.

These three, interconnected levers of change, powered by philanthropy, collectively escalate the ambitions and actions needed for a zero-emission future by governments and businesses, with support from civil society.

FIGURE 3: MAP: 2021 SNAPSHOT — 100% ZERO-EMISSION VEHICLE COMMITMENTS BY GEOGRAPHY



By the end of 2021, electric transportation reached new levels of deepening commitments around the world. This map shows where there is committed support to achieve 100% electric vehicles of up to five different vehicle types: through national and sub-national actions, policies, or commitments, along with regional, city, and business participation in Drive Electric partner initiatives like the Global Commercial Drive to Zero or the EV100 platform. Data compiled with and from Drive Electric partners, ibid Fig. 2.

## Breakthroughs: July - December 2021

In the second half of 2021, electric transportation accelerated at an unprecedented pace. Here we summarize and highlight key drivers of that progress and how our community of partners contributed to a number of significant achievements. We also track the full scope of advancements, from policy wins and new stakeholders joining the journey to 100% electric road transportation, to the subsequent market responses in the share of electric cars, freight trucks, and buses in key markets. These are just a selection of the many incredible advancements from the latter part of 2021, with so much more progress happening on the ground and around the world.

### Global Leaders Commit to Clean Cars at the United Nations Climate Conference

#### COP26 Glasgow Declaration fuels dramatic global expansion of commitments for cars and vans

In recent years, the UN Framework Convention on Climate Change Conference of the Parties (COP) has focused on what actions need to be taken to meet the Paris Agreement targets to limit global warming to well below two degrees Celsius. Despite the fact that transportation is the number one source of emissions in the U.S. and Europe, and fast-growing elsewhere, the sector was previously not tied to any outcomes or representation at the COP. Seizing the moment of climate emergency coupled with increased interest and ambition from the U.K. government, Drive Electric partners collaborated to ensure that transportation's role in both climate emissions and a net-zero future were well represented at the November 2021 COP26.

Signed by 38 national governments, as well as state and industry leaders, the COP26 [Glasgow Declaration](#) calls for all sales of new cars and vans to be zero-emission by 2035 in leading markets, and globally by 2040. This success is due in part to the efforts of RouteZero, the UN High-Level Climate Champions, and other Drive Electric partners who helped shape the declaration with the U.K. government and coordinated and recruited signatories. The Declaration was the first time several countries committed to 100% electric transportation, including Mexico, Paraguay, Morocco, Ghana, Kenya, Rwanda, Azerbaijan, Cambodia, and the Indian state of Telangana. Over 2 billion people live in the areas governed by national and subnational signatories of the Declaration – meaning a little over a quarter of the global population will experience the health and local climate benefits of these commitments.

However, the Declaration reached beyond government commitments to galvanize increased ambition from other stakeholders. The Declaration was supported by automotive manufacturers representing more than one in four of all passenger car sales, in addition to some of the world's largest business fleets, major investors, and other important stakeholders. The Declaration also recognized the need for a broader shift, including “support for active travel, public and shared transport.”



Recognizing the role of road transportation in climate change, global leaders signed the Glasgow Declaration in November 2021, alongside sub-national governments and industry stakeholders (photo by CALSTART).

## Chile Commits to End of Polluting Vehicles in 2035

**Bold leadership in Latin America emerges, leveraging research and policy development support from our partners**

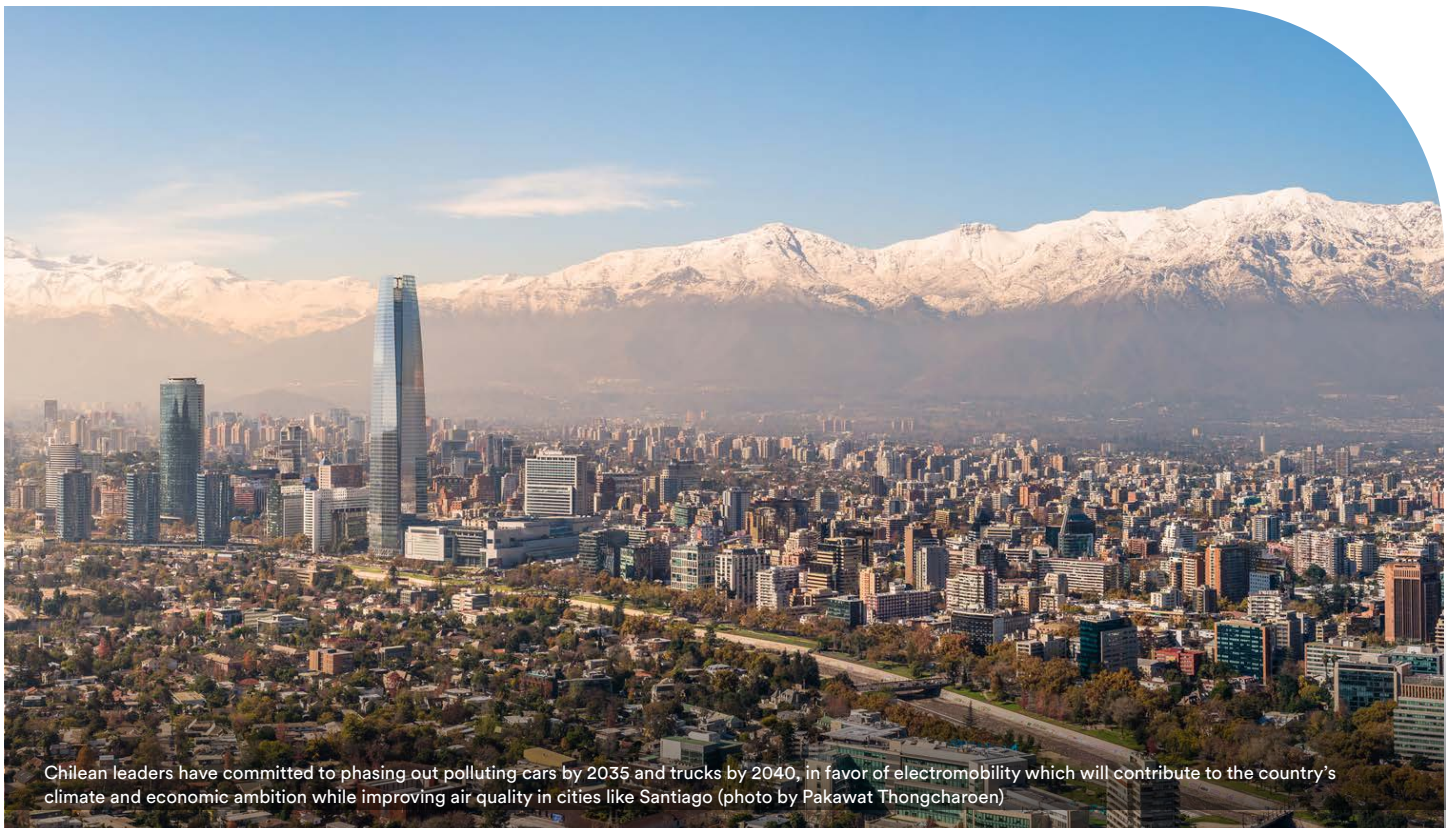
In October 2021, Chile became the first large emerging market to phase-out sales of polluting cars in favor of electric vehicles by 2035, while also setting targets for phasing out diesel buses and polluting trucks. This decision was the result of a pioneering National Commission of Electric Mobility led by the Ministry of Energy and early action on electric bus deployment. With these commitments Chile marks a new benchmark for ambition in Latin America and across the Global South.

Energy Minister Juan Carlos Jobet said that this move allows Chile “to accelerate our goals and align with international standards, thus acquiring the best practices and experiences for a massive incorporation of electromobility in the country.”

Chile has also been active internationally and has engaged with Drive Electric partners who have demonstrated the benefits of electrification. For example, Chile first began attending the International Zero Emission Vehicle Alliance (ZEV Alliance), in 2019, as an observer. Over the course of 2020 and 2021, they were an active participant and representative of the ZEV Alliance ideal – that good-faith exchange of information among governments can help to raise ambition. Then, in mid-fall of last year, Chile joined as a full member of the Alliance.

The International Council on Clean Transportation, a Drive Electric partner, provides technical and scientific analysis to environmental regulators and is the secretariat of the ZEV Alliance platform to convene participating governments to expand the global zero-emission vehicle market.

Last November, at COP26 in Glasgow, Chile signed the Global Memorandum of Understanding (MOU) organized by Drive Electric partner Drive to Zero, an endorsement that the Chilean government is committed to making 30% of new truck sales zero-emission vehicles by 2030 and to achieving 100% zero-emission new truck and bus sales by 2040.



Chilean leaders have committed to phasing out polluting cars by 2035 and trucks by 2040, in favor of electromobility which will contribute to the country's climate and economic ambition while improving air quality in cities like Santiago (photo by Pakawat Thongcharoen)

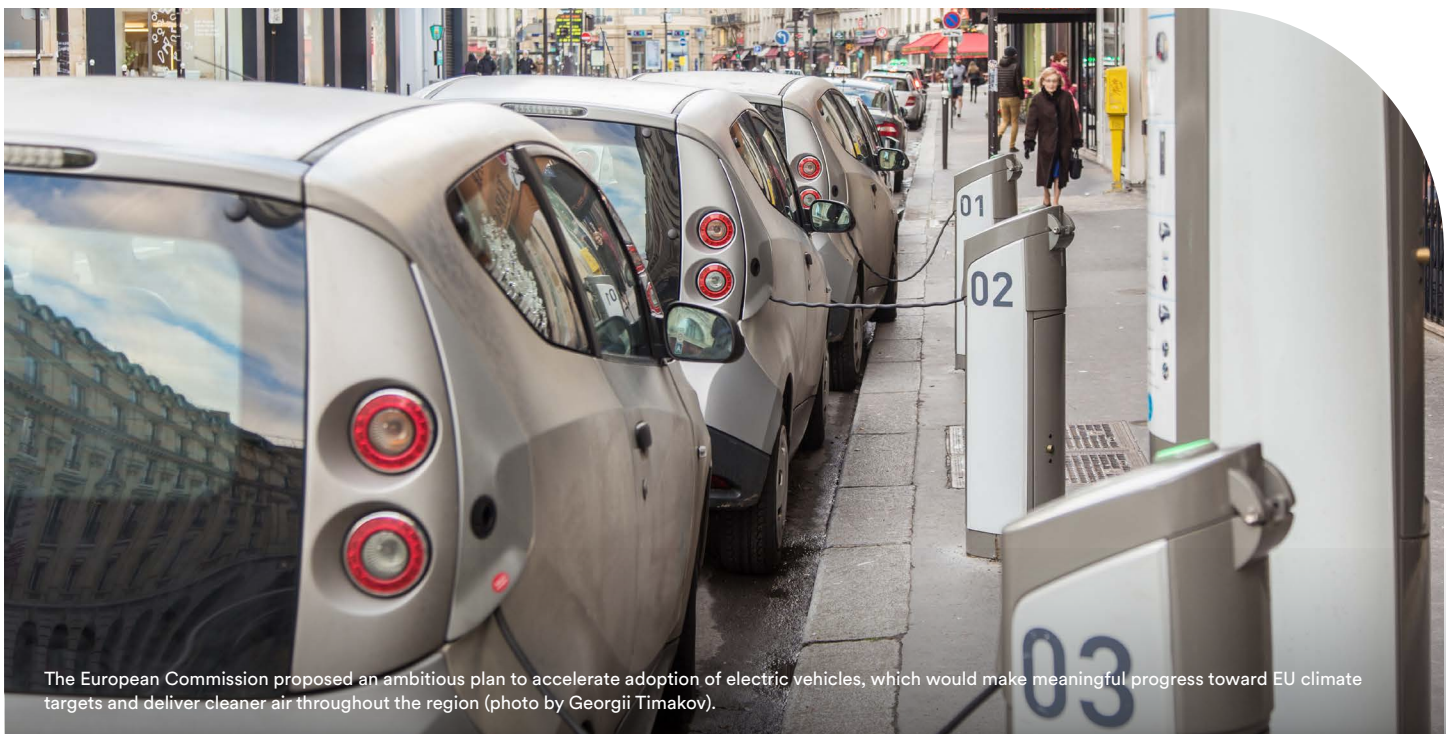
## European Commission Proposes a Shift to 100% Zero-Emission Cars and Vans

Thanks to dedicated advocates, the 2035 target is part of the “Fit for 55” climate package

Transport represents nearly a quarter of the European Union’s greenhouse gas emissions, and transport emissions will have to be reduced by 90% in order to reach climate neutrality in 2050. And yet, as the European Commission began scoping their latest climate action package, the level of ambition was insufficient to address both climate change and the high levels of air pollution, which exceeds World Health Organization standards in many major cities.

Drive Electric supported a network of partners in Europe — including many key actors working at local, national, and European Commission levels — to push for more ambition. This included the International Council on Clean Transportation (ICCT) providing research to show that stronger policies were both feasible and cost-effective, and Transport and Environment (T&E) working to increase the ambition of a groundbreaking European Commission proposal. When announced in July of last year, the interconnected legislation, called “Fit for 55” based on the targeted reductions in 2030, set out to transform the European economy, and with it the automotive industry. To achieve the European Commission’s plan for reducing net greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels, the proposal sets a target of 100% zero-emission sales of cars and vans by or before 2035. Interim targets include 55% CO<sub>2</sub> reduction from new cars and 50% from new vans by 2030 (compared to 2021 levels).

This ambitious policy proposal could become a model for the world, and exemplifies how Drive Electric partners combine technical expertise with public engagement and advocacy to ensure decision-makers can embrace a zero-emission transportation future. While ICCT generated numerous [research papers](#) for individual countries, an EU-wide [carbon budget analysis](#), and electric vehicle cost and charging infrastructure research, T&E engaged directly with member countries and supported an EU-wide campaign to raise ambition. Dedicated on-the-ground engagement paid off: in December 2021, the lead negotiator in the European Parliament published his amendments to the proposal, which both confirm the 2035 combustion engine phase-out and strengthen the 2030 targets. Briefings and campaign work will continue in 2022 in order to secure support from Members of the European Parliament and national governments – both of which will have a say before the proposal can become a law.



The European Commission proposed an ambitious plan to accelerate adoption of electric vehicles, which would make meaningful progress toward EU climate targets and deliver cleaner air throughout the region (photo by Georgii Timakov).

## Fast Clips: Drive Electric Campaign Global Highlights

**Shoonya Campaign Launches Zero-Emission Urban Freight in Delhi**, created by India's NITI Aayog in partnership with RMI-India to transform last-mile deliveries with electric two- and three-wheelers. Shoonya was designed to engage policymakers, private companies, and consumers, showing that EV last-mile delivery can reduce reliance on imports of oil, improve urban air quality, and improve long-term profitability of delivery business models.

Photo courtesy of Shoonya



**ZEBRA Brings \$1B Investment to ZEV Buses in Latin America**, backed by C40 Cities and ICCT, the Zero Emission Bus Rapid-deployment Accelerator (ZEBRA) announced this major fleet investment at COP26, citing the climate benefits of switching from diesel to zero-emission buses, and the goal to ramp up production of these vehicles in the region.

Photo by Cristian Silva Villalobos



**Trottier Foundation Catalyzes Electric School Buses in Canada**, funding 10 organizations over two years in four regions to conduct policy research, stakeholder outreach, and build grassroots support to dramatically boost the number of Canadian children riding in clean, electric buses to and from school.

Photo via Lion Electric

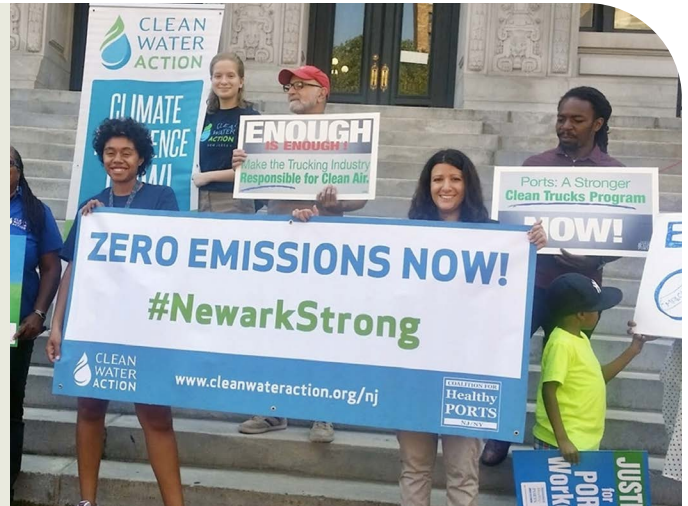




# Fast Clips: Drive Electric Campaign Global Highlights

**Advanced Clean Truck Rules Adopted in Six U.S. States**, supported by a wide coalition of partners nationally and state-based advocacy, who bring research to policymakers and ensure that communities most impacted by “diesel death zones” and the harmful impacts of polluting medium- and heavy-duty vehicles are heard. First passed in CA, the ACT Rule has made its way to OR, WA, NY, NJ, and MA, together accounting for over 20% of the U.S. truck market; the Electric Trucks Now coalition is working to build state actions into national action.

Photo courtesy of Clean Water Action



**Electric Freight Gains Speed with Drive to Zero Global MOU**, launched at COP26 by the Global Commercial Vehicle Drive to Zero, the Memorandum of Understanding creates alignment for 100% new zero-emission medium- and heavy-duty vehicles by 2040, and 30% by 2030, including buses and freight trucks, with endorsements from 15 countries, and dozens of sub-national governments, businesses, and other organizations with influence over the sector.

Photo courtesy of CALSTART



**U.S. States Step Up to Charge Ahead and Multinational Platforms Expand**, advancing commitments to zero-emission vehicles with a total of 16 states having adopted advanced clean cars regulations, accounting for nearly 40% of the U.S. market (along with Advanced Clean Truck Rules mentioned above). Drive Electric partners continue to use the amazing progress at the state level to push for more ambitious federal action. Regional and multinational platforms connect participating businesses to best practices and opportunities to support key policies. In 2021, The Climate Group’s EV100 network of major companies welcomed their first Brazilian and South Korean members, while the Ceres-supported Corporate Electric Vehicle Alliance and the European Clean Trucking Alliance both generated industry support for medium- and heavy-duty fleet electrification.










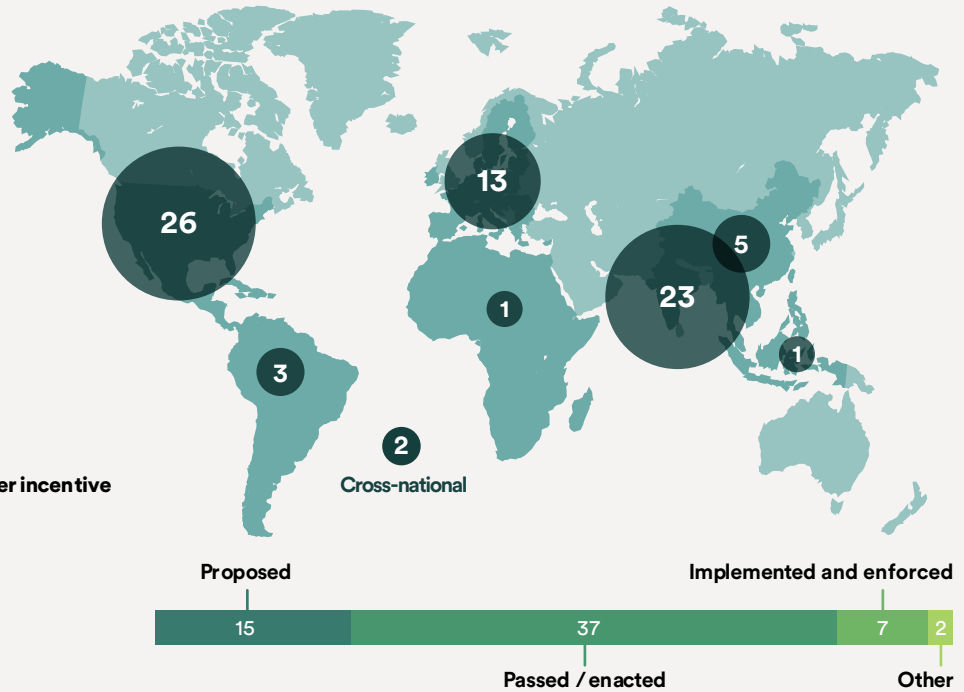
# Drive Electric Campaign Progress: End of 2021

FIGURE 4: GLOBAL PROGRESS: ZEV POLICY WINS IN THE SECOND HALF OF 2021

# 74

policy wins

-  **33** Vehicle regulation
-  **14** Charging
-  **10** Commitment
-  **16** Vehicle financial / other incentive
-  **11** EV access privilege
-  **3** Funding / investment
-  **9** Other



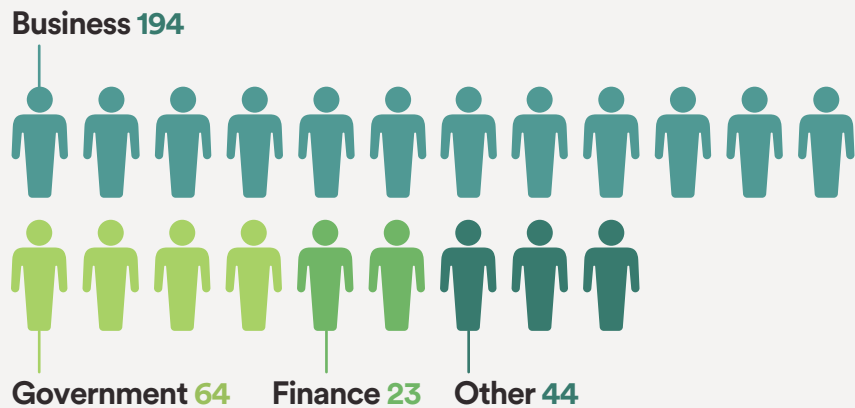
In the second half of 2021, Drive Electric partners contributed to at least 74 ZEV-enabling policies; by mode, most were focused on passenger vehicles, but freight also saw advancement.

Source: Drive Electric partner input and independent research.

FIGURE 5: NEW STAKEHOLDERS COMMITTING TO ZERO-EMISSION TRANSPORTATION

# 325

new stakeholders publicly supporting the transition to 100% zero-emission transportation

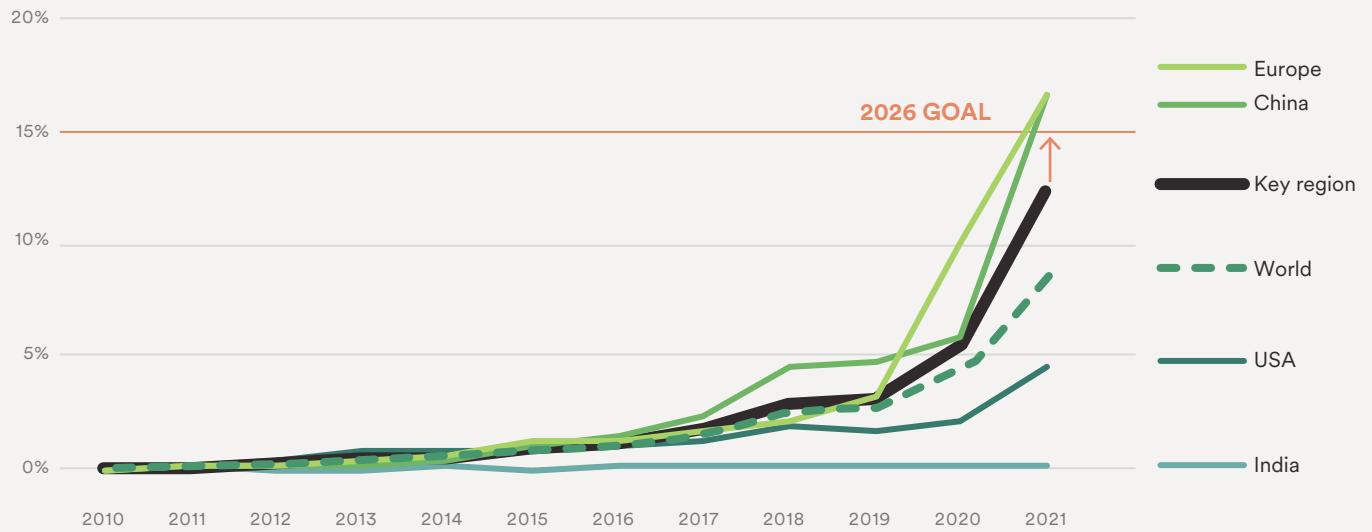


Cumulatively, there are now 1,269 stakeholders committing to a 100% zero-emission transportation future, with 325 new signatories in the second half of 2021. The geographic reach of these commitments is increasingly global (see map on p.4).

Source: Drive Electric partner input and independent research.

# Drive Electric Campaign Progress: End of 2021

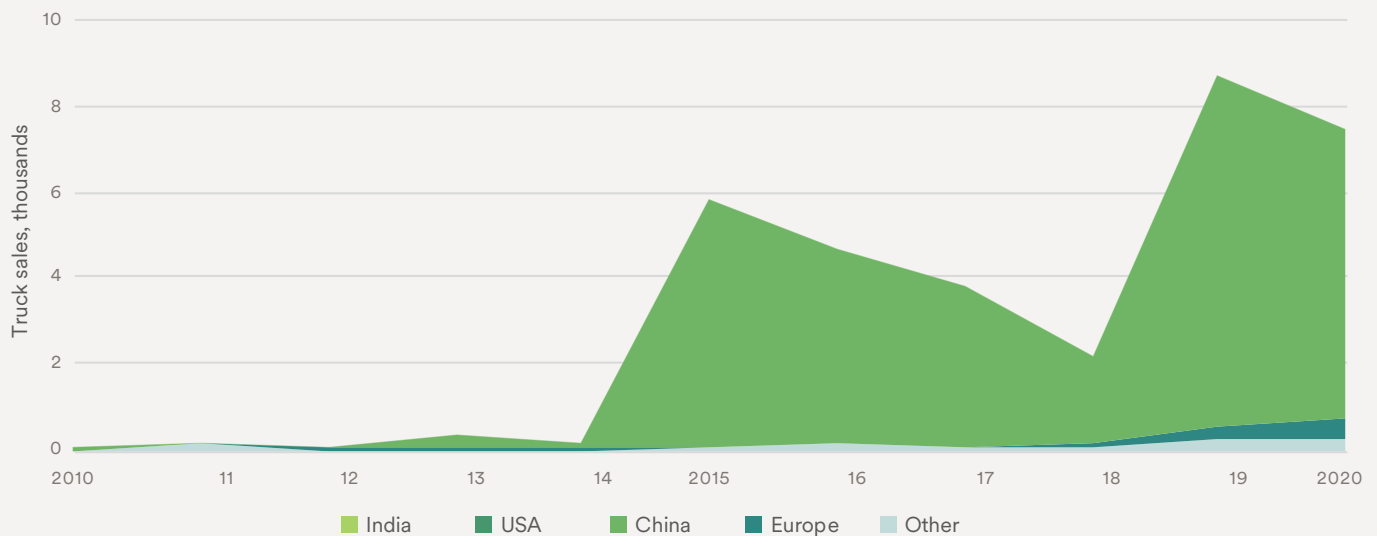
FIGURE 6: GLOBAL PROGRESS OF ZEV CAR SALES BY END OF 2021



Drive Electric tracks the market share of electric vehicles in key regions and around the world. This graph shows zero-emission light-duty passenger car sales.

Source: [IEA Global EV Data Explorer](#), [IEA updated sales](#), and [ICCT Europe sales](#).

FIGURE 7: GLOBAL PROGRESS OF ZEV TRUCKS IN KEY MARKETS



Drive Electric tracks the market growth of electric vehicles in key regions and around the world. This graph shows zero-emission heavy-duty commercial truck sales, in thousands, through 2020 (2021 data will be available for the next report).

Source: [IEA Global EV Data Explorer](#).

Drive Electric is made possible through the coordinated investment of our philanthropic supporters and Steering Committee, which includes representatives from the Energy Foundation, Energy Foundation China, the European Climate Foundation, Shakti Sustainable Energy Foundation, ClimateWorks Foundation, and several Drive Electric foundation partners. Drive Electric fosters collaboration across regions and strategies, which accelerates ambition in this important work. By aligning our community toward shared goals, we seek to end the polluting tailpipe and transition to 100% zero emission electric transportation, delivering massive benefits to the climate, health, and the economy.

### Drive Electric Campaign Steering Committee



Learn more: [www.DriveElectricCampaign.org](http://www.DriveElectricCampaign.org)  @Drive\_Electric\_

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