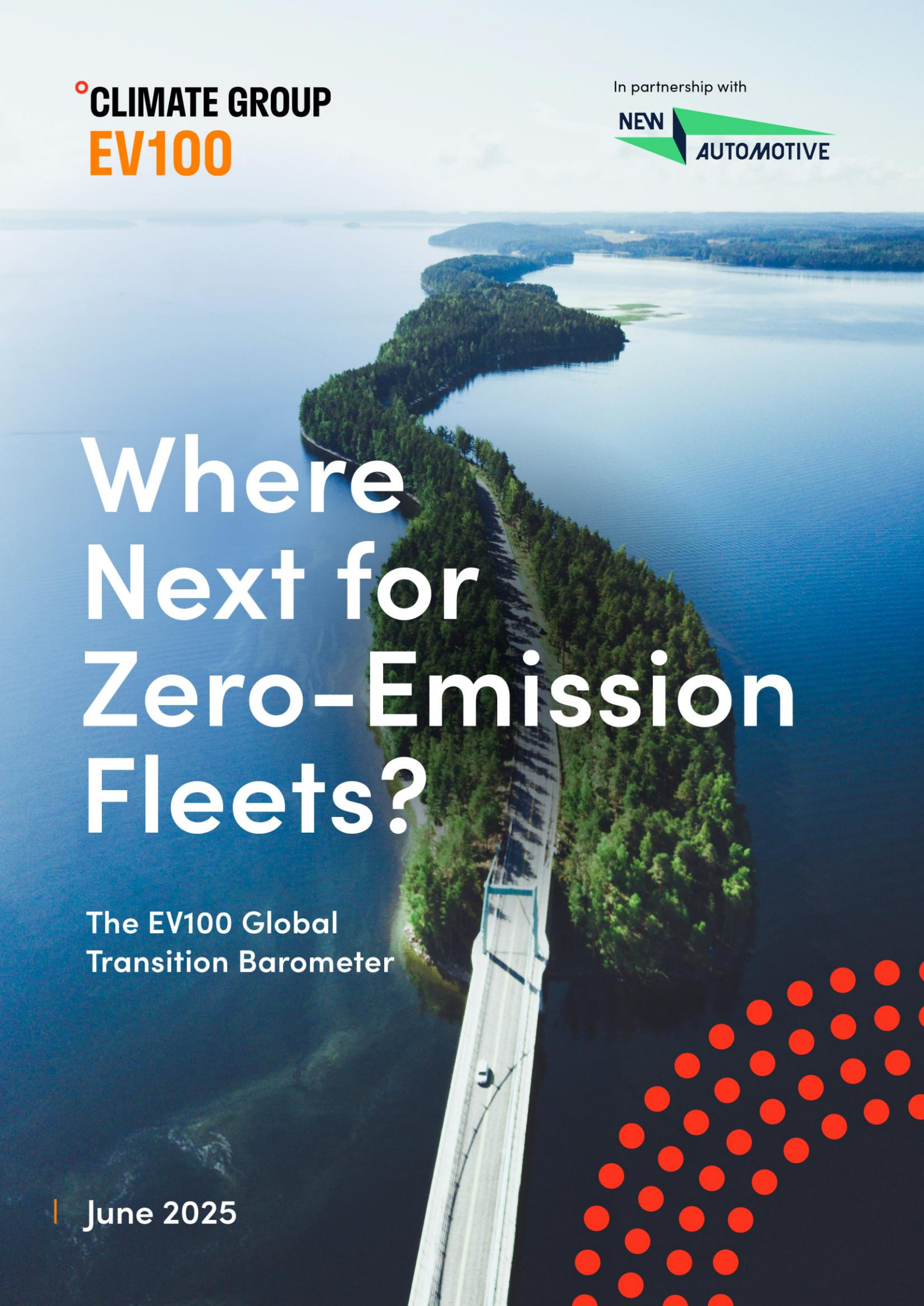
CLIMATE GROUP
EV100

In partnership with
NEW AUTOMOTIVE



Where Next for Zero-Emission Fleets?

The EV100 Global Transition Barometer

June 2025

The EV100 Global Transition Barometer

Executive Summary | June 2025

Background

Climate Group's EV100 network is a coalition of committed companies at all stages of the EV transition. Our members are on a journey to fully electrify their corporate fleets – to ambitious deadlines, and in markets around the world. By speeding up the shift to electric vehicles (EVs), they drive up sales, and bring down prices – making EVs rapidly more affordable and accessible for all.

In the summer of 2024, Climate Group set out to relaunch EV100, alongside its sister initiative EV100+, to reflect the realities of the EV transition across the world – to support EV100 members' demand signal to accelerate the transition to zero emission fleets. Please visit climategroup.org/ev100 for more details on the relaunch.

Key to these plans was a thorough review of the commitment that members make to join the network. We want this new commitment to be ambitious and achievable. Member companies must believe it is possible to succeed – but also know that success requires movement beyond regulatory compliance, or following trends amongst other EV buyers. And it must remain relatively simple – to ensure that members know what needs to be implemented and can communicate the scale of their demand to suppliers, investors and policymakers.

Central to this vision was an understanding that the EV transition is happening at different speeds in different places and ambition looks different in each of these geographies. To determine what this means for the key markets that EV100 members operate in, Climate Group partnered with the London-based consultancy New AutoMotive.

New AutoMotive was commissioned to research and implement a tiering methodology to sort markets by EV readiness. The scored tiers then informed our decisions on the level of commitment required by EV100 for each country.

The EV100 Global Transition Barometer is the completion of this work and represents the complete findings from the partnership.

Developing the methodology

New AutoMotive's research was carried out in two phases:

- A pilot phase to develop a set of criteria, scores, and weights, which was then applied to 10 markets to determine the effectiveness of the framework.
- A main phase in which a wider range of countries were assessed against an updated framework.

A total of 39 countries were reviewed, with the European Union treated as a single market. The research looked at medium and large economies which had signed up to either one of the UN commitments: the Accelerating to Zero for cars and vans or the Global Drive to Zero for freight vehicles, and further countries were selected based on GDP and population size.

Climate Group provided New AutoMotive a list of draft criteria as a basis for development of the initial methodology, grouped under four headings:

- Supply side regulation/targets
- Charging Infrastructure
- Fiscal Landscape/Demand Stimulation
- Market uptake

Based upon the draft criteria provided by Climate Group, along with the New AutoMotive's findings from reviewing other EV readiness reports, a weighted scoring criteria was established, tested, and finalised.

The Final Scoring Criteria

The final criteria assigned weighted scores across the four key headings. The more useful a metric is in projecting future EV uptake, the higher the possible score.

- For supply-side regulations and targets: up to 12 points based on the strength of a mandate or standard.
- For charging infrastructure: up to 4 points based on the existence of a chargepoint strategy, the funding behind it, and any reliability or interoperability standards.
- For fiscal and energy policy: up to 5 points based on available incentives, tax advantages and relative electricity cost.
- For uptake: up to 10 points based on the LDV uptake to date, with 10 points recognising 30% or more of new car sales.

For medium- and heavy-duty vehicles (MHDV), a similar scoring system was adopted, with a few differences. Among the supply-side regulation and targets scoring, each date was moved back five

years to reflect the later timeline of commitments and policies for MHDV decarbonisation. For scoring charging infrastructure for HDVs, the methodology allocated more points to funding, irrespective of whether a strategy was in place, given the limited data on HDV chargepoints. The scoring structure for fiscal and energy policy measures, as well as uptake, is the same for MHDVs as it is for LDVs.

The final score for each country is the LDV score + the HDV score.

Findings

Tier 1: Leading Markets (scores above 23)

- Norway (48)
- Ethiopia (42)
- China (39)
- UK (34)
- Singapore (34)
- Israel (31)
- Canada (31)
- Türkiye (27)
- South Korea (29)
- EU (26)
- United States (26)
- Uruguay (24)
- Ukraine (24)

Tier 2: Emerging Markets (scored below 23)

- India (22)
- Thailand (21)
- Switzerland (20)
- Chile (20)
- New Zealand (19)
- Colombia (18)
- Dominican Republic (17)
- Costa Rica (19)
- Japan (16)
- Morocco (16)
- Indonesia (16)
- Malaysia (15)
- Australia (15)
- Brazil (15)
- Ghana (15)
- Mexico (14)
- Vietnam (12)
- Argentina (12)
- Kenya (11)
- Egypt (11)
- Philippines (11)
- Nigeria (10)
- Azerbaijan (10)

Research Findings

Background

EV100, a global initiative bringing together companies committed to accelerating the transition to electric light duty vehicles (cars and vans up to 7.5t), was launched by Climate Group in 2017 to build a corporate leadership community for fleet electrification. EV100+ was established in 2022 to kickstart the transition to zero-emission medium and heavy-duty vehicles (MHDVs > 7.5t). The EV100 and EV100+ commitments have each played a substantial role in setting the baseline for credible EV ambition.

Climate Group has recently carried out a strategic review of the EV100 campaign. This has shown a need to update the commitment criteria to reflect changes in global markets since launch seven years ago – whilst as always striking a balance between ambition and feasibility for the member network.

Amongst the proposed changes are:

- a change in commitments from stock (the proportion of zero emission vehicles on the road) to flow (the proportion of zero emission vehicles entering the fleet);
- no longer accepting plug-in hybrids as part of the commitment. All qualifying vehicles must have zero tailpipe emissions;
- most relevantly for this work - sorting markets into 2 tiers, with different levels of commitment, calibrated to markets' level of EV readiness.

Climate Group has also made the decision to update the EV100+ commitment simultaneously, as leaving it unchanged might otherwise result in the EV100 commitments falling behind the MHDV target for some markets.

New AutoMotive were commissioned to research and implement a tiering methodology by which to sort markets by EV-readiness, to inform decisions on the level of commitment by country. We agreed to carry out the work in two phases:

In the first (pilot) phase, a set of criteria, scores and weights were developed, taking account of other EV readiness rankings used elsewhere. This was then applied for 10 markets, using extensive desk research, and reported alongside conclusions on the effectiveness of the framework and any recommendations for change.

New AutoMotive then carried out the second (main) phase, in which a wider range of countries were assessed against an updated framework, with the results reported alongside the pilot scheme countries. This report delivers this second phase.

Selection of countries

New AutoMotive suggested an initial list of countries which was reviewed by The Climate Group to identify 10 markets for the pilot phase. The countries were:

- Brazil
- Chile
- India
- Indonesia
- Japan
- Kenya
- Mexico
- South Africa
- United Kingdom
- Vietnam

Moving on to the second stage of the project, a further 29 countries were identified. These included medium and large economies which had signed up to either one of the UN commitments: the

Accelerating to Zero for cars and vans campaign, or the Global Drive to Zero for freight vehicles. Further countries were selected from the top 50 global economies based on GDP and population size. Petrostates amongst the top 50 economies were excluded from the analysis. These markets often exhibit unique economic and policy dynamics that are heavily influenced by their resources of, and consequent reliance on, fossil fuels. This is likely to create a different context for electrification, potentially skewing comparisons with other countries.

It is also important to note that the EU has been assessed as one entity. While we recognise that individual member states are at different stages in their EV transitions, this aggregation emphasises the free movement of vehicles across the single market, and the collective influence of EU-wide supply-side regulations, such as the 2035 de facto ZEV target and existing CO_2 emissions standards.

The countries added in this stage of the project are:

Africa

- Egypt
- Ethiopia
- Ghana
- Morocco
- Nigeria

Americas

- Argentina
- Canada
- Colombia
- Costa Rica
- Dominican Republic
- United States
- Uruguay

Europe

- European Union
- Norway
- Switzerland
- Ukraine

Asia

- Azerbaijan
- Bangladesh
- China
- Israel
- Malaysia
- Pakistan
- Philippines
- Singapore
- South Korea
- Thailand
- Turkiye

Oceania

- Australia
- New Zealand

Other EV readiness rankings

To inform our approach, we reviewed four other metrics for EV readiness. These were:

- Cornwall Insight - EV Country Attractiveness Index
- Euromonitor International - Electric Vehicle Readiness Index
- EY - EV Country Readiness Index
- Arthur Little - Global Electric Mobility Readiness Index (GEMRIX)

Whilst these metrics produced a range of different ranking outcomes, and some surprising results, we also found similar weaknesses in the methodologies:

- A lack of transparency in scoring methodology. Euromonitor reports that it looks at 4 factors, including EV market maturity, infrastructure maturity, cost of ownership, consumer spending power, but does not explain how they are scored. EY uses a mixture of supply, demand, and regulation but does not provide further information.

- A lack of transparency in market selection. EY chooses only 10 countries and varies the countries each year, making it impossible to track relative readiness over time. Arthur Little studied 35 markets, including the major markets and economies along with a number of oil dependent economies, many of them quite small (e.g. Kuwait and Oman)
- Use of a very large number of broad and collinear factors. Arthur Little is more transparent than other ranking producers but they rely on 47 criteria, including GDP per capita, net income, urbanisation, vehicle market size, internet penetration and smartphone penetration. All of these factors are likely to be closely correlated with one another and of uncertain benefit.
- Use of soft measures such as consumer confidence. EY appears to include consumers' stated likelihood of their next vehicle being an EV, and whether the cost of ownership is a concern. Arthur Little - who to their credit, have been more open about their methodology - have used criteria such as whether customers are likely to buy one for their next car, and consumer faith in public charging infrastructure. These measures are sensitive to the context in which they are asked, and - as pure top of mind responses - may have only a weak link to eventual purchasing decisions when buyers begin to actively compare options.
- Use of lagging over leading indicators - Of Cornwall Insight's 16 indicators, 7 concern chargepoint provision. Given that the majority of consumers do the vast majority of their charging at home, it is not clear how much charge point provision is a real driver for EV take up, rather than simply a stated barrier for consumers who have not thought about buying an EV. Nor is it clear how charge point operators will fund the rollout of ubiquitous charge points ahead of strong demand for charging. This means that the readiness measure ends up evaluating countries' progress against an unrealistic and impractical yardstick.

These have informed our own approach to selecting, scoring and weighting criteria, as set out in the following sections.

The criteria and scoring

Phase 1

The Climate Group provided a list of draft criteria as a basis for phase 1, grouped under four headings - supply side regulation/targets; charging infrastructure; fiscal landscape/demand stimulation; and market uptake - alongside 13 underlying metrics (with some additional metrics for the MHDV market).

New AutoMotive incorporated the vast majority of these, with only a few exclusions and revisions. Two proposed indicators were removed to avoid double-counting: measures to drive private chargepoint investment, which are already reflected in supply-side regulation and targets; and the projected year by which 50% of new vehicles sold will be zero emission, as this is difficult to forecast reliably and often duplicates stated national targets.

We also removed the 'state of the grid' as a standalone metric for medium- and heavy-duty vehicles (MHDVs), due to the multi-dimensional and regionally variable nature of grid readiness data. In its place, uptake of MHDVs serves as a useful proxy, as firms are unlikely to invest in vehicles requiring high-speed charging without confidence in grid capacity.

Several other metrics were combined, split, or moved between categories, leading to a refined set of thirteen criteria. Following our review of methodologies used by other organisations, we also excluded broad demographic indicators such as GDP. While loosely correlated with electric vehicle uptake, these are poor predictors of readiness, as both high- and middle-income countries feature among the leaders and laggards, and early adoption is evident even in some low-income contexts.

Similarly, measures of public support or scepticism were excluded. Stated concerns or willingness to adopt often reflect weakly held or transient views, particularly in countries where exposure to

electric vehicles remains limited. In contrast, legal mandates, infrastructure, and financial incentives are more robust indicators of progress.

The criteria and scoring largely stayed the same between the pilot and main stage of the project with the biggest change being to fiscal measures, explained below.

Phase 2

The metrics have stayed largely unchanged for stage 2 of the project, with the most significant change being to fiscal measures, which we have broadened to also capture wider energy policy measures. This more comprehensive approach aims to reflect not just direct taxpayer support but indirect policy support through measures to reduce the costs of running zero emission vehicles relative to fossil equivalents. In this way, we aimed to provide a clearer picture of the financial landscape for fleet LDV and MHDV buyers. To achieve this, a new indicator was introduced, covering the ratio of average electricity costs to those of fossil transport fuels.

Additionally, two existing categories—one focusing on grants offered upfront and another on tax incentives—were refined into two more clearly differentiated and precise questions - covering the presence of significant upfront or post-purchase grants or tax incentives available to fleet LDV buyers, and significant ongoing tax advantages for fleet LDV buyers. This adjustment better reflects the way certain financial support measures, such as tax rebates at the point of purchase, often span both original categories. These metrics should only be scored against if the benefits offered are of substantial value to fleet buyers, ensuring the scoring remains focused on measures with meaningful impact. Countries do not gain points if they offered similar incentives to hybrid vehicles, as this represents a funneling of incentives away from BEVs.

Barring these changes, the metrics, scores and weights were unchanged.

Scoring and weightings

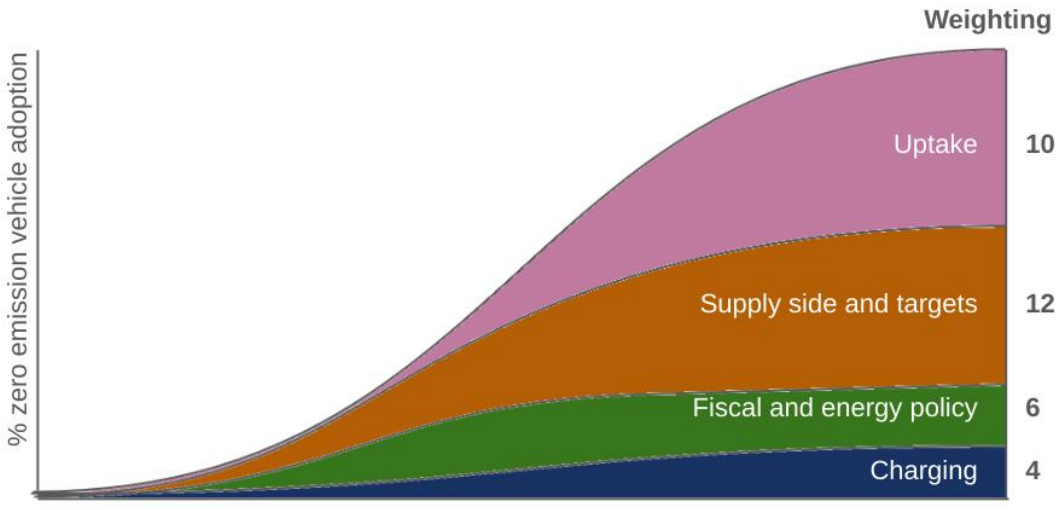


Figure 1: Our theory of change and criteria weightings

Our theory of change for the transition is that key levers which will enable **early adopters** to begin to switch are **fiscal** (in the form of incentives), and **energy policy**-related (in the form of running cost savings), to kick start the market. It is not politically feasible to apply ambitious supply-side measures or targets to markets at such an early stage. However fiscal incentives in particular are inherently unstable as their cost is nearly always borne from the public purse. They are frequently

funded by one-off budgetary provisions and can easily be raided or cut when Governments face spending challenges. Many have been withdrawn as individual markets reach 10-20% battery electric market share and cuts to fiscal incentives have been the major source of most market downturns. Whilst energy policy incentives are typically more stable, the much higher efficiency of electric vehicles means that there are typically significant running cost savings even in markets where electricity is relatively expensive. This in turn means that upfront cost differences are a bigger determinant of take-up. Overall, therefore this criterion is a relatively weak predictor of when markets will reach a high level of zero emission vehicle penetration.

As we move into the **early-majority** and - for fleets - decarbonisation of less straightforward use cases, **supply side measures and targets** become much more important. These provide market certainty and lower prices to widen the scope of zero tailpipe solutions for transport and do so without imposing strain on Government budgets. In most jurisdictions they can only be withdrawn through industry consultation, where their benefit to some market participants (e.g. EV manufacturing firms, and chargepoint operators) provides a barrier to significant dilution. For example, despite the efforts of EU and UK manufacturers, supply side measures and targets have not been significantly watered down in either market. These criteria are therefore most heavily weighted.

In the **early majority and later majority**, the momentum represented by **uptake** becomes more important in normalising the transition. Significant market share gives companies and service providers the confidence to invest and to further facilitate the switch. Where zero tailpipe emission market share is above 10% this is a sign to leading firms that have made the EV100 commitment that 50% is - in time - achievable. Where current take-up exceeds 20%, it is time for front runners to begin to aim at 100%. On the other hand, where countries have not reached these market share milestones at all, it is a strong signal that the technical challenges to switching are more deeply rooted, making the EV100/100+ commitments less feasible. This criterion is therefore also comparatively heavily weighted.

In contrast, we see **charging** as a hygiene factor. Poor charging infrastructure has the power to slow the transition, but good charging infrastructure cannot kick start it without (earlier on) fiscal incentives or (later) supply side measures and targets. In the vast majority of countries, charging infrastructure is provided predominantly by the private sector, with state involvement limited to early-stage interventions and later plugging of gaps. Despite claims to the contrary - chiefly supported by top-of-mind surveys which as explained above are poor predictors of future consumer behaviour - we have not found any markets in which a lack of charging infrastructure has been responsible for a downturn in zero emission vehicle uptake[1]. Furthermore, headline figures such as the ratio of zero emission vehicles to chargepoints are inherently weaker indicators. Public charge point numbers do not necessarily say much about the numbers of workplace chargers, or the scalability of the infrastructure to allow charging of, say, large numbers of vans in one place. This factor has also therefore been given less weight.

Our full list of criteria is given below.

LDVs

Figure 2: Scoring criteria

[1] Some industry organisations have pointed to the low absolute numbers of chargepoints in Central and Eastern European members of the EU as an example of charging infrastructure delaying the switch. However, these countries in fact generally have higher ratios of chargepoints (often provided with state support) to cars on the road - and in any case account for only a very small proportion of vehicles which are bought new.

Supply-side + targets

[select one of]

2	A mandate or standard which governs the car parc
4	Mandate/standard with tightening for some LDVs to ≈50%+ ZEV by 2040 or non-stat commitment to end new non-ZE LDVs by 2040
6	Mandate/standard with tightening for some LDVs to ≈50%+ ZEV by 2035 or non-stat commitment to end new non-ZE LDVs by 2035
8	Mandate/standard with tightening for some LDVs to ≈50%+ ZEV by 2030 or non-stat commitment to end new non-ZE LDVs by 2030
10	Mandate/standard with tightening for all LDVs equivalent to ≈50%+ ZEV by 2027

[and add one of]

0	No fleet mandate
1	Fleet mandate requiring some LDVs to reach 50% ZEV equivalent by 2035
2	Fleet mandate requiring some LDVs to reach 50% ZEV equivalent by 2030

Charging infrastructure

[select all that apply]

1	A chargepoint strategy
1	Funding for any chargepoint strategy
1	Reliability or interoperability standards
1	LDV to charge point ratio <10:1

Fiscal and energy policy

[select one of]

2	Are there substantially higher upfront or post-purchase grants or tax incentives to fleet buyers of Zero Emission LDVs than for Non-Zero Emission LDVs?
1	Are there higher upfront or post-purchase grants or tax incentives to fleet buyers of ZE LDVs than for NZE LDVs?

[and add one of]

2	Are there substantial ongoing tax advantages to fleet buyers of Zero Emission LDVs than for buyers of Non-Zero Emission LDVs ?
1	Are there some tax advantages for fleet buyers of ZE LDVs than for buyers of NZELDVs?

[and one of]

2	Ratio of average electricity cost to petrol cost is <0.8 [Top third of countries]
1	Ratio is between 0.8 and 1.2 [Middle third of countries]
0	Ratio is more than 1.2 [Bottom third of countries]

Uptake

[select one of]

Points	LDV uptake year to date (or most recent year)	Points	LDV uptake year to date (or most recent year)
1	0-0.5%	6	7.5-10%
2	0.5-1%	7	10 - 15%
3	1-2.5%	8	15-20%

4	2.5-5%	9	20-30%
5	5-7.5%	10	30%+

When a country had no available data, it was assumed, unless it could be inferred in another way - for example by vehicle numbers on the road - that the market share was in the lowest category.

MHDVs

For Medium and Heavy Duty Vehicles a similar scoring system was adopted, with a few differences.

Supply-side and targets: each date was moved back 5 years, so a mandate or standard with tightening for some MHEVs to ≋50%+ ZEV by 2045 or a non-statutory commitment to end new non-zero emission MHDVs by 2045 would score 4 points, whilst a fleet mandate requiring some MHEVs to reach 50% ZEV equivalent by 2035 would score 2 points. This change reflects the later timeline of commitments and policies for MHDV decarbonisation.

Charging infrastructure: data on charging systems targeted at or suitable for MHDVs is not widely available and strategies for MHDV chargepoint provision are at an earlier stage of development. Therefore, an approach was adopted which allocated more points to funding, irrespective of whether a strategy was in place.

[select all that apply]

1	A chargepoint strategy
2	Funding for MHDV chargepoints
1	Reliability or interoperability standards

The scoring structure for Fiscal and Energy policy measures as well as Uptake is the same for MHDVs as it is for LDVs.

Fiscal and energy policy: diesel rather than petrol is used as the comparator fuel and different thresholds are applied to ensure countries are roughly equally distributed across the three point scores.

2	Ratio of average electricity cost to diesel cost is <0.875 [Top third of countries]
1	Ratio is between 0.875 and 1.35 [Middle third of countries]
0	Ratio is more than 1.35 [Bottom third of countries]

Country context and data capture

Data capture

This section provides an evidence-based assessment of the sources used to look at the current state of EV readiness in the selected countries. Data was sourced from industry surveys, government databases, and third-party market analysts. Key among these were various government bodies, including national and regional entities such as Ministries or Departments of Transport, Energy, Environment, and Industry, alongside national statistics offices, energy agencies, and environmental protection agencies. These official sources were important for understanding policy frameworks, electrification targets, official registration data, incentive schemes, and infrastructure plans.

Complementing government data, industry associations, automotive manufacturers' groups, dedicated electric vehicle associations, and automotive dealer associations provided information such as market data, sales trends including EV market share, industry perspectives on policy, and insights into production and supply chains.

Independent research organisations, academic institutions, and specialised think tanks, such as climate and energy focused institutes, contributed significantly through in-depth analyses, policy evaluations, technological assessments, and forward-looking studies on the EV transition. Non-governmental organisations and civil society groups, including environmental alliances, transport-focused NGOs, consumer associations, and broader civil society coalitions, also provided data in support of their key role in advocacy, offering independent research, real-world impact assessments of policies, consumer perspectives.

The private sector, including specialised automotive and energy market research firms, commercial data providers, and major industry players like energy utilities and charging infrastructure companies, offered detailed market intelligence, sales and registration data, forecasts, and insights into charging network deployment and usage.

International bodies such as UN agencies and development banks were particularly relevant for understanding EV initiatives in emerging markets, often providing data from pilot projects, regional reports, and policy guidance.

Nevertheless, it is important to acknowledge at the outset that sourcing globally consistent and comparable data presents challenges. The depth, consistency, and accessibility of EV-related data varied considerably across the researched countries, often in a way correlated with the maturity of the respective car markets.

For instance, regions with well-established data sources, such as many European nations (including the EU, UK, Norway, and Switzerland), North American countries like the USA and Canada, several East Asian countries (including China, Singapore, South Korea, and Japan), and others like Australia and New Zealand, generally offer high-quality data. This typically comes from a combination of government portals, frequent industry reporting, academic research, and comprehensive analyses from NGOs and private market intelligence firms, with official statistics on vehicle registrations, charging infrastructure, and policy impacts being regularly updated and publicly accessible.

In contrast, regions with growing data availability, including many countries in Latin America (such as Chile, Mexico, Uruguay, Brazil, Costa Rica and Colombia) and parts of Asia (including Indonesia, Malaysia, Thailand, the Philippines, India, Türkiye, and Israel), are seeing improvements as government-led initiatives for EV adoption become more prominent. However, information in these areas can still suffer from a lack of granularity and less frequent updates, making direct comparisons challenging.

Finally in nascent markets – African nations (such as Kenya, Egypt, Ghana, South Africa, Morocco and Nigeria), some Asian countries (like Azerbaijan, Bangladesh, Vietnam, and Pakistan), and Argentina and Dominican Republic in Latin America – there is often a significant lack of comprehensive and reliable sources. EV-specific market data is frequently sparse, fragmented, and infrequently updated. Information often relies on overarching government energy or transport plans which may lack detailed or current implementation data, pilot projects supported by international organizations, or anecdotal evidence.

The only country that bucks this trend is Vietnam. Here data was hard to come by with few policy mechanisms - however, the transition in terms of numbers of EVs registered is going well. This seems to be due to their geographical and cultural closeness to China. It will be interesting to

monitor this country to see whether the trend can be sustained without the policy “backbone” over the longer term.

Given these challenges, including the lack of good sources in some regions and variations in data collection methodologies, the sources used were the most up-to-date available for the individual countries at the time of research. This means some dates may not completely align across all datasets. Efforts were made to ensure data comprehensiveness and to navigate these limitations carefully.

Highlighted country context

Norway

Norway stands as the world's leader in electric vehicle adoption, with EVs consistently capturing the majority of new car sales and already forming a substantial portion of the total car fleet. This success has been built on a long-standing and comprehensive suite of consumer-facing incentives, including significant tax exemptions (VAT and purchase tax), reduced road tolls, free or discounted parking, and access to bus lanes. This demand-driven approach contrasts with models focused primarily on supply-side regulations.

Several unique factors have enabled Norway's model, making it challenging for many larger, less wealthy nations to replicate. The country's significant sovereign wealth fund, derived from oil and gas revenue, has provided the financial capacity to sustain generous subsidies. Norway benefits from abundant hydroelectric power, ensuring EVs run on clean and low cost energy, a small and relatively affluent population, and the absence of a domestic car manufacturing industry that might resist policies favoring EVs over ICE vehicles. As the market matures, Norway is now gradually beginning to phase in taxes on EVs.

Ethiopia

Ethiopia presents a unique context for the EV transition, driven by a strong governmental push. In a bid to alleviate severe foreign currency shortages spent on fuel imports, the government took the radical step in January 2024 of banning the import of petrol and diesel vehicles, effectively mandating a switch to battery electric or hybrid electric alternatives for new vehicle imports. This policy, while also aligning with environmental goals, is primarily an economic strategy. The authoritarian government has allowed for such a swift and sweeping mandate, positioning Ethiopia as a unique case study in supply-side forced EV adoption that currently appears unlikely to be replicated anywhere else in the world.

Data on Ethiopia's automotive sector is often scarce and requires estimations. Based on figures prior to the ban, Ethiopia had approximately 1.2 million vehicles on the road. Since the import ban, reports indicate that over 100,000 cars have been imported (annualising to roughly 80,000-96,000+), a figure that significantly overshadows the estimated 8,000 vehicles (of which only a fraction are cars) manufactured locally with internal combustion engines each year. Using the approximate one-third/two-thirds split between fully electric and hybrid electric models in other countries, we estimate that battery EVs now constitute approximately one-third of new vehicles entering the market. However, these figures come with significant caveats, including the precise enforcement and scope of the import ban, the overall fleet turnover rate, the impact of ongoing foreign currency constraints on the ability to import EVs and charging infrastructure, as well as the general reliability and comprehensiveness of recent data. While the ban points to a high EV share in new vehicle supply, the actual impact on the total fleet composition will take time to materialise.

The EU

The European Union has historically positioned itself as a global leader in environmental regulation, particularly concerning the automotive sector. It has established some of the world's most stringent CO2 emission standards for new passenger cars and light commercial vehicles, which form a central pillar of its comprehensive 'Fit for 55' package. This legislative framework is designed to steer the bloc towards its ambitious goal of climate neutrality by 2050. These regulations have been instrumental in driving down average CO2 emissions from new vehicles and fostering the growth of the ZEV market within the EU. The framework outlines clear, progressively tightening targets for 2025 and 2030, culminating in a de facto ban on the sale of new petrol and diesel cars and vans from 2035.

However, concerns regarding the global competitiveness of European automakers, especially in the face of rapidly advancing Chinese EV manufacturers, coupled with anxieties about the broader economic and social impacts of an accelerated transition, have led to the watering down of the CO2 regulations for cars. Notable among these is a shift from annual compliance with CO2 targets to a three-year averaging period for the 2025-2027 timeframe. And a contentious debate continues regarding the potential role of e-fuels for new internal combustion engine vehicles beyond the 2035 deadline. Policy decisions in the current parliamentary term (2024-2028) may see the EU fall down the table as a bloc.

UK

The United Kingdom has articulated a clear ambition for its transition to electric vehicles, largely through the implementation of a Zero Emission Vehicle (ZEV) mandate. This policy, which came into effect in early 2024, is a regulatory mechanism designed to ensure vehicle manufacturers achieve an escalating percentage of ZEV sales each year. The mandate sets out a clear pathway with targets including 22% of new car sales being ZEVs in 2024, rising steeply to 80% by 2030. This proactive stance initially provided a strong signal to the industry and contributed to the UK becoming a prominent market for EVs in Europe.

However, the UK's ambitious EV transition pathway has been complicated by recent adjustments to its flagship policy. The government has introduced further flexibilities into the ZEV mandate, effective until 2029. These include provisions such as reduced financial penalties for non-compliance and greater allowances for manufacturers to borrow compliance credits from future years or to offset shortfalls against emissions reductions from their conventional vehicle fleet. Concerns have been raised that these dilutions could decelerate the pace of EV uptake and, critically, create a "cliff edge" scenario. This refers to the potential for manufacturers to face an exceedingly steep, perhaps unachievable, ramp-up in ZEV sales in the single year between 2029 and the 2030 target. The overall trajectory towards the 2030 goals has now gained a greater degree of uncertainty.

USA

Successive federal administrations have outlined varying degrees of ambition for decarbonising the transport sector, with recent efforts including goals to transition the vast federal vehicle fleet to ZEVs and substantial investment in a national EV charging network through the Bipartisan Infrastructure Law's National Electric Vehicle Infrastructure (NEVI) program. Federal tax credits for consumers and businesses aim to further stimulate the adoption of EVs. However, the federal policy environment is frequently subject to large shifts in priorities with changes in administration, creating an undercurrent of regulatory uncertainty that impacts long-term planning and investment.

A defining feature of the US EV landscape is the influential role of individual states, particularly California. Through waivers granted under the Clean Air Act, California has historically been empowered to set more stringent vehicle emission standards than those mandated federally. These Californian standards, including ambitious targets for ZEV sales, are often adopted by a significant

number of other states, creating a large bloc market pushing for faster electrification. This state-level leadership, however, is currently facing intense legal scrutiny. Multiple court cases are challenging the Environmental Protection Agency's (EPA) authority to grant such waivers, as well as the legality of the waivers themselves. These legal battles, compounded by the potential for federal regulatory rollbacks depending on the administration in power, represent major hurdles that could significantly influence the trajectory of the EV transition.

China

China has established itself as the dominant global force in the transition to electric vehicles. Key policies, including the dual-credit system (which mandates New Energy Vehicle (NEV) production quotas for manufacturers), a history of direct subsidies for EV purchases, ongoing purchase tax exemptions, and substantial government-led investment in charging infrastructure, have helped drive both manufacturing and adoption. China has the world's largest market for EVs and also stands as the leader in both EV and battery manufacturing.

China's EV sector is beginning to navigate a series of emerging challenges. The domestic market is highly competitive and has triggered price wars, which are impacting profitability across the sector, but ensuring motorists get good deals on NEVs. The international expansion of leading Chinese EV brands, such as BYD, is increasingly encountering trade friction. This includes the imposition of new tariffs by major markets like the United States and the European Union, citing concerns over subsidies and fair competition.

The results

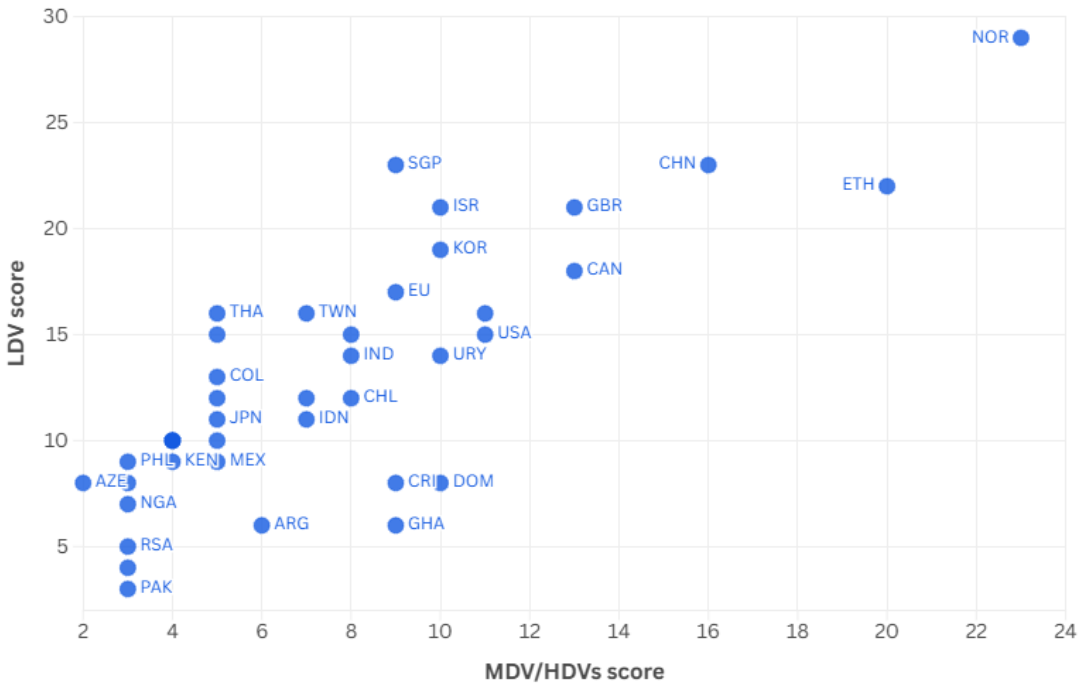


Figure 3: Country-by-country scores for LDV compared with MDV/HDVs. See Appendix 1 for country codes.

Supply-side and targets

The Climate Group provided a list of draft criteria as a basis for phase 1, grouped under four headings - supply side regulation/targets; charging infrastructure; fiscal landscape/demand

stimulation; and market uptake - alongside 13 underlying metrics (with some additional metrics for the MHDV market).

LDVs

Analysing the LDV data reveals a broad spectrum of policy ambition for supply-side regulations. Norway demonstrates the highest level of commitment with scores of 10 points, indicating a mandate for 50%+ of some LDVs to be ZEVs by the highly ambitious date of 2027.

Following closely, the UK and Singapore exhibit strong policy signals with 8 points, reflecting targets or commitments equivalent to 50%+ ZEV by 2030. The UK scores this due to the ZEV Mandate policy which sees manufacturers targeting above 50% EV sales by 2030 - this is despite some watering down of interim targets in recent months.

A larger cohort, including the EU, North American countries, and others like China and South Korea, score 6 points, aligning with 50%+ ZEV targets later than 2030 but by 2035. Ethiopia's non-statutory commitment to import 500,000 EVs by 2035 equates to a similar proportion of sales.

A significant portion of the evaluated countries score 4 points, indicative of targets extending to 2040, while several others score 2 points for merely having a general mandate governing the car parc without specific, time-bound ZEV targets within the defined criteria.

The USA's score of 6 points is a result of the EPA's final tailpipe emissions rule which requires an average emissions cut of approximately 50% by 2032. This and a number of different policies are under review and likely to change under Trump's presidency.

MDV/HDVs

Turning to the MDV/HDV sector, the policy landscape appears significantly less ambitious on average. A group including the UK, Canada, the United States, Ethiopia and several others score 6 points, mainly being achieved by signing up to UN commitments. Chile scores 4 points with a target extending to 2040.

A substantial number of countries across various regions score 2 points, showing no, or little commitment to reducing CO2 pollution from this segment on the market. Several countries that scored moderately or highly for LDVs score only 0 or 2 for MDV/HDVs, for example Argentina scores 6 for LDVs due to being a signatory of the UN commitment, but only 2 for MDV/HDVs.

Currently no countries score any points available for the implementation of a fleet mandate. A number of countries have targets for certain fleets, especially Government-owned vehicles. However, this falls short of all fleets and a policy mechanism, rather than just a target.

Charging infrastructure

The evaluation of charging infrastructure scores for light-duty vehicles (LDVs) and medium- and heavy-duty vehicles (MDVs/HDVs) underscores the uneven progress in global readiness for electric vehicle adoption.

LDVs

For LDVs, countries such as China, South Korea, Singapore, and the EU achieve full scores of 4, reflecting a comprehensive framework that addresses every indicator of charging infrastructure. These regions not only have established chargepoint strategies but also provide funding and enforce standards for reliability and interoperability, while maintaining favourable vehicle-to-charger

ratios (1:10). This approach positions them as leaders in ensuring the necessary infrastructure to support widespread ZEV adoption. Japan and India also perform strongly, scoring 4 points, highlighting similar levels of readiness, although in the case of these countries, the high performance against these "hygiene factors" does not indicate widespread EV adoption. The United Kingdom, with a score of 3, demonstrates robust planning and regulatory frameworks but falls short on achieving the recommended LDV-to-charger ratio. Nor, it should be noted, does Norway. Both countries have a large number of households with driveways and each has a 1:1 ratio when private charging is included.

The United States and Australia, both scoring 3, show promising regulatory and funding measures but also face an infrastructure gap on chargepoint numbers.

Many countries lag significantly. Vietnam, Ghana, and the Philippines score 0, reflecting a lack of action across all assessed criteria.

MDVs/HDVs

For MDVs/HDVs, the readiness picture is less optimistic. China, the EU, and Norway lead the pack. These countries have implemented high-speed chargepoint strategies, allocated substantial funding for deployment, and ensured reliability and interoperability standards. Their approach reflects an understanding of the distinct infrastructure needs for MDVs/HDVs, which demand specialised charging networks. India, scoring 2 points for funding, showcases some commitment to MDV/HDV electrification but lacks a complete strategy.

Fiscal and energy policy landscape

LDVs

Efforts to support light-duty vehicles (LDVs) globally reveal varied levels of progress when examining the availability of grants, tax incentives, and energy cost ratios. Countries with comprehensive policies in place often demonstrate a greater state of readiness to transition fleet vehicles to zero-emission alternatives, while others lag due to gaps in financial support or unfavourable energy costs.

Norway stands out as the only country achieving the maximum score of six points. Its extensive upfront and ongoing tax incentives, combined with an advantageous electricity-to-fossil fuel cost ratio, set a global benchmark. Similarly, Canada and South Korea perform strongly with five points, leveraging both significant tax benefits and favourable energy costs to encourage fleet adoption of LDVs. Other high performers include China and Israel, each scoring four due to a mix of incentives and competitive electricity costs.

Brazil and Morocco, each with 3 and 4 points respectively, highlight regional leadership. Both countries offer moderate financial incentives, and Morocco further benefits from a highly favourable electricity cost ratio. Vietnam also scores three points, thanks to ongoing tax incentives and relatively competitive electricity costs.

The UK achieves a modest score of two points, driven solely by its upfront grants. The absence of ongoing tax benefits and its unfavourable electricity-to-fossil fuel price ratio hinder a stronger performance. Japan also scores two points, showing partial readiness with moderate grants and ongoing tax advantages but similarly struggling with energy cost disparities.

Countries like Chile, Uruguay, Nigeria and Egypt, scoring two points, benefit solely from competitive energy costs. In contrast, countries such as Azerbaijan and Bangladesh, with a single point, struggle to implement even basic measures for fleet electrification.

However, many countries demonstrate bigger gaps. The EU, despite its overarching climate ambitions, scores zero, reflecting a lack of coordinated financial support or electricity cost advantages across member states for LDV fleet buyers. Other countries such as Australia, South Africa, Pakistan and Kenya also score zero, indicating little to no policy measures in this area.

MDV/HDVs

South Korea and Norway supports fleet MDV/HDV buyers with upfront grants and ongoing tax advantages as well as lower electricity costs, earning 6 points. Ethiopia, Canada, Indonesia, Taiwan and Türkiye also perform well, scoring 4 points through tax benefits and favourable electricity-to-fossil fuel cost ratios, whilst the UK achieves the same total but with higher electricity costs.

China, India, Singapore, Chile, Argentina, Uruguay, Dominican Republic and Israel, achieve 3 points through a mix of grants or tax advantages and electricity costs. Ghana, Nigeria and Egypt earn 2 points each, solely from favourable electricity cost ratios.

Countries like Kenya, Vietnam, and Brazil offer minimal support, earning only 1 point, whilst many regions, including the EU and Switzerland, the Philippines, and New Zealand lack meaningful measures, scoring 0 points. South Africa and Pakistan also offer no incentives or advantages, scoring 0 points.

Overall, high performers consistently leverage tax incentives alongside electricity cost advantages.

Uptake

LDVs

The uptake of light-duty vehicles (LDVs) reveals a contrast between global leaders and nations just beginning to transition to electric mobility. High uptake rates generally reflect a combination of mature policy environments, robust charging infrastructure, and strong consumer incentives, which have created conducive conditions for rapid electrification.

Countries such as Norway, Singapore and Ethiopia score the maximum ten points, with more than 30% of new LDV sales being zero-emission vehicles (ZEVs). China also stands out with nine points and an uptake rate of 20–30%, across LDVs as a whole.

Other high performers, including the UK, Switzerland, Israel, Taiwan and the EU, have uptake rates ranging from 15% to 20%. Their scores, between seven and eight points, demonstrate significant progress in decarbonising light-duty fleets. Notably, the EU's coordinated policy framework and the UK's ZEV mandate targets have played critical roles in driving adoption.

In the mid-range category, countries such as Canada, Türkiye, and Vietnam score between five and seven points, representing uptake rates between 5% and 15%. Vietnam, in particular, highlights the growing presence of emerging markets in the global EV landscape, supported by domestic manufacturing capabilities like VinFast. The United States scores a moderate five points, reflecting an uptake rate of 5–7.5% across all LDVs. Despite strong regional variations, federal incentives and a growing public charging network are accelerating the pace of adoption.

Several nations, including Brazil, Chile, and Mexico, fall within the lower range of three to four points, representing uptake rates between 1% and 2.5%. These countries face barriers such as limited infrastructure and high upfront costs, even where incremental progress is evident. For example, Brazil benefits from an expanding biofuels sector, which, while complementary to decarbonisation, might partially disincentivise EV adoption.

Many African countries, including Kenya, Ghana, as well as emerging economies like Bangladesh and Pakistan, score one point, reflecting negligible EV adoption. In these markets, a lack of reliable data complicates analysis, but assumptions based on estimated total EV numbers on the road suggest current uptake is below 0.5%.

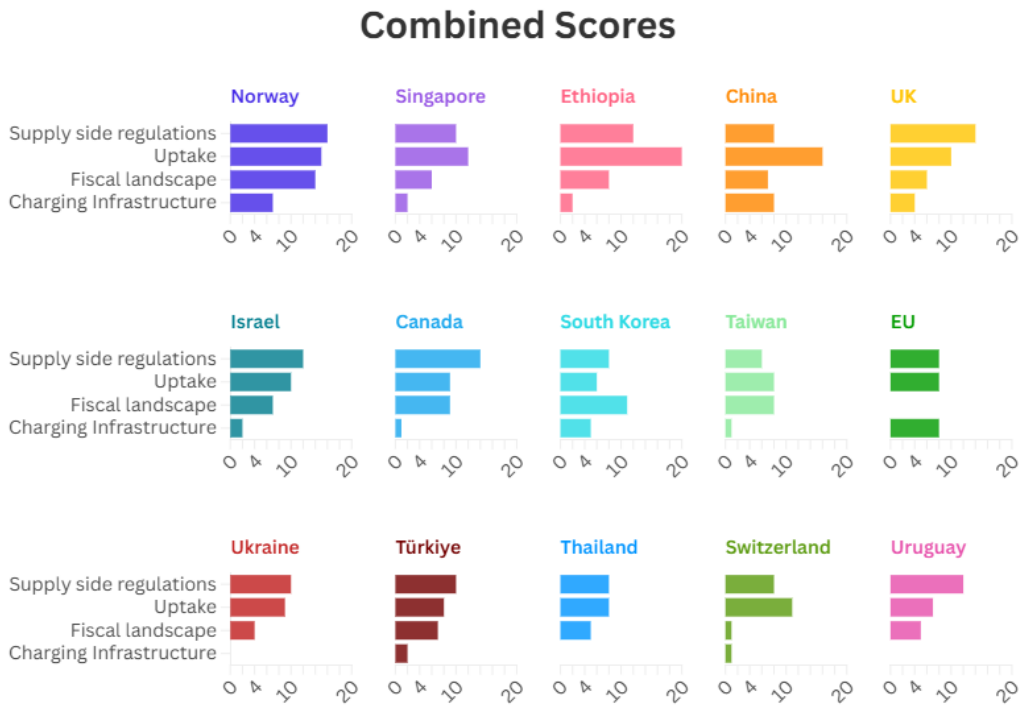
MDV/HDVs

For MDVs and HDVs, the data reveals a starkly different picture. China and Norway emerge as leaders with seven and five points respectively. This leadership stems from early policy interventions and targeted subsidies for commercial and freight EV adoption. Ethiopia, with a very different route to decarbonisation, scores even more highly with ten points[2].

Nearly all other countries score just one point, with uptake rates below 0.5%. This highlights the nascent state of MDV/HDV electrification globally. The lack of reliable data across the majority of markets underscores the challenges in tracking progress for these vehicle segments, often overshadowed by the focus on passenger vehicles.

The MDV/HDV segment remains critically underdeveloped, even in countries with relatively high LDV adoption. A significant scaling of policies, infrastructure investment, and vehicle availability is essential to address this gap and support comprehensive decarbonisation across all vehicle classes.

Overall scoring



[2] In the absence of more detailed information, we have again assumed that one-third of the new MHDVs being imported into the country are fully electric, with the remainder being hybrid electric.

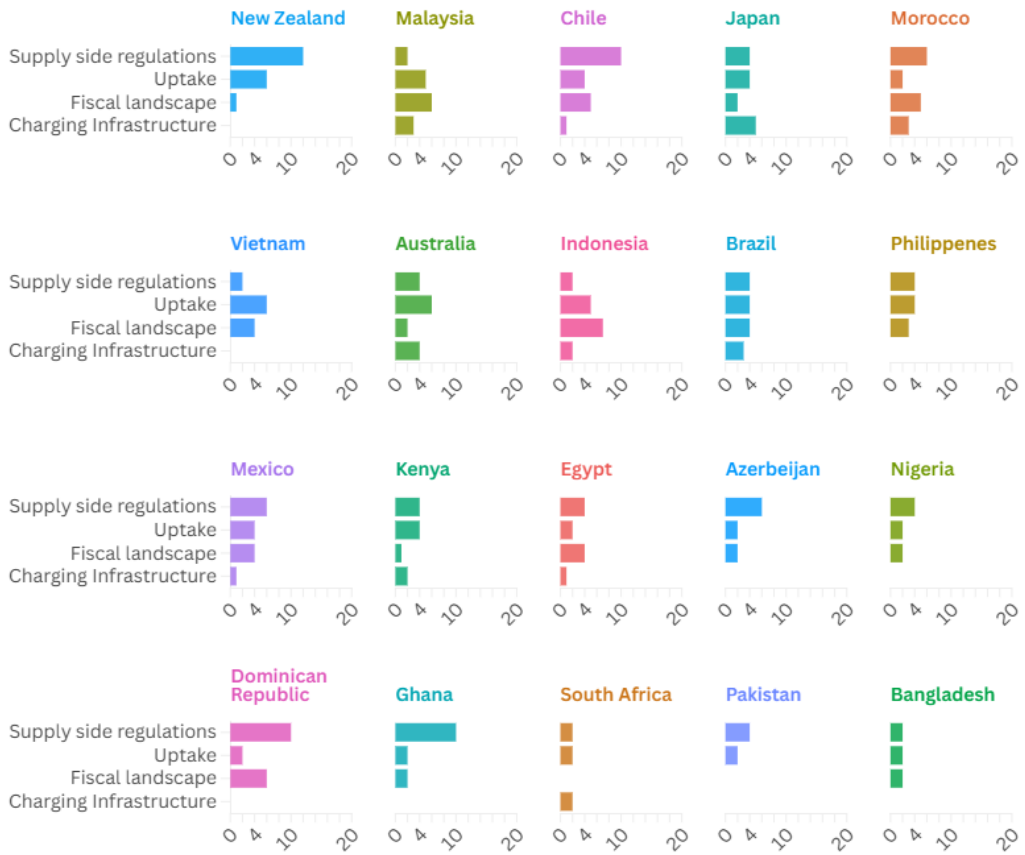


Figure 4: Combined scoring for LDVs and MHDVs

For light-duty vehicles (LDVs), leading countries such as Norway, the UK, and Singapore demonstrate robust supply-side regulations, including ZEV mandates targeting over 50% adoption by 2030, supported by cumulative measures across charging infrastructure and wider fiscal and/or energy policy incentives. This comprehensive approach results in high ZEV penetration, as seen in Norway. Conversely, countries like South Africa, Bangladesh, and Nigeria score poorly across all categories due to limited regulatory frameworks, insufficient infrastructure planning, and negligible fiscal support, resulting in minimal ZEV uptake.

For medium- and heavy-duty vehicles (MDVs/HDVs), countries such as the EU, and the US exhibit leadership through ambitious mandates aiming for significant ZEV adoption by 2030–2035. These nations have implemented targeted charging infrastructure strategies, often focused on high-speed charge points, and offer substantial fiscal measures. This alignment between policy and infrastructure drives higher uptake rates in these markets. However, in developing regions, such as Ethiopia, Ghana, Bangladesh, and Pakistan, regulatory frameworks are either non-existent or in early stages, and infrastructure gaps persist, with little to no fiscal incentives to support MDV/HDV electrification. As a result, ZEV adoption in these categories remains low, highlighting the disparity in progress between developed and developing nations.

Our conclusions

Tiers

The methodology for categorising countries into two EV readiness tiers is based on their overall 'Total Score', across LDVs and MHDVs. Initially, the full range and distribution of these Total Scores across all countries were examined to understand the spectrum of EV preparedness.

The proposed tier 1-tier 2 boundary reflects the conditions which need to be in place in a country now for firms to realistically commit to 100% battery electric new LDV registrations by 2030 and 100% MHDVs by 2035. This is likely to require at least a voluntary non-statutory commitment by countries to meet these targets or a statutory commitment to reach 50% by the same dates, on the basis that such targets would deliver vehicles at broad cost parity and charging infrastructure would develop with limited state input.

Alternatively, a lesser statutory or non-statutory commitment may be sufficient, as long as it was supported by a combination of real momentum in take-up or a supportive environment of fiscal incentives, relative energy costs and charging infrastructure.

This suggests a minimum of 8 points on the supply side and targets criterion for each of LDVs and MHDVs, with enough other points (say, 8) picked up across charging infrastructure, fiscal incentives/energy costs and take up to ensure that the supply side commitments are deliverable.

Alternatively, slightly lower scores on the supply side criteria for LDVs and/or MHDVs (say, a total of 12 points) would be sufficient if combined with sufficiently strong incentives, energy cost advantages and progress on the hygiene factor of charging and momentum as measured by take-up (say, a further 12 points).

Either of these would be sufficient to give companies operating in these markets a realistic prospect of meeting their commitments under EV100 and EV100+.

This suggests a threshold of 23 points for the bottom of tier 1 (which we have designated as “Ready”), and 22 for the top of tier 2 (provisionally designated as “Getting ready”).

A very small group of countries have been left untiered. These are countries which score fewer than 10 points, corresponding to a lack of voluntary targets or tightening statutory provisions (fewer than 4 points on either supply side/targets measure) and very limited progress on other criteria (5 points or fewer). They could continue to be monitored for updates to policy which might allow them to enter tier 2. Alternatively, they might be placed in tier 2, subject to an appropriate caveat or flexibility for firms which took account of company and country-level circumstances.

Tier 1 - Ready

Tier 1 countries lead the transition with a combination of strong policies and take-up in place, supported where necessary by direct fiscal and indirect energy policy-related incentives and support for charging infrastructure. Tier 1 countries:

- Norway (48)
- Ethiopia (42)
- China (39)
- UK (34)
- Singapore (34)
- Israel (31)
- Canada (31)
- Türkiye (27)
- South Korea (29)
- EU (26)
- United States (26)
- Uruguay (24)
- Ukraine (24)
- Taiwan (23)

Tier 2 - Getting ready

Tier 2 countries show promising but varied progress, generally with some regulatory commitments and/or take-up, but typically at a lower level than tier 1 countries, and without comprehensive support from the fiscal/energy policy landscape and/or infrastructure strategy.

- India (22)
- Thailand (21)
- Switzerland (20)
- Australia (15)
- Brazil (15)
- Ghana (15)

- Chile (20)
- New Zealand (19)
- Colombia (18)
- Dominican Republic (17)
- Costa Rica (19)
- Japan (16)
- Morocco (16)
- Indonesia (16)
- Malaysia (15)
- Mexico (14)
- Vietnam (12)
- Argentina (12)
- Kenya (11)
- Egypt (11)
- Philippines (11)
- Nigeria (10)
- Azerbaijan (10)

Untiered countries

For a small group of countries scoring at the lowest end of the group, who are not signed up to UN agreements and have few policy or uptake points, they have not currently been assigned a tier, and thus a target. While some have started adopting policy frameworks, progress remains slow, indicating a need for greater investment and clearer commitments to move into tier 2. Alternatively, they might be placed in tier 2, subject to an appropriate caveat or flexibility for firms which took account of company and country-level circumstances. These are countries that have scored less than fewer points overall, indicating a 2035 or 2040 goal may be hard to reach.

- Bangladesh (7)
- South Africa (6)
- Pakistan (6)

Appendices

Appendix 1: Country code ISO 3 letters

Country	Code
ARG	Argentina
AUS	Australia
AZE	Azerbaijan
BGD	Bangladesh
BRA	Brazil
CAN	Canada
CHE	Switzerland
CHL	Chile
CHN	China
COL	Colombia
CRI	Costa Rica
DOM	Dominican Republic
EGY	Egypt
ETH	Ethiopia
GBR	United Kingdom
GHA	Ghana
IDN	Indonesia
IND	India
ISR	Israel
TWN	Taiwan

Country	Code
JPN	Japan
KEN	Kenya
KOR	South Korea
MAR	Morocco
MEX	Mexico
MYS	Malaysia
NGA	Nigeria
NOR	Norway
NZL	New Zealand
PAK	Pakistan
PHL	Philippines
SGP	Singapore
THA	Thailand
TUR	Türkiye
UKR	Ukraine
URY	Uruguay
USA	United States
VNM	Vietnam
ZAF	South Africa