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SBD's EV Guide provides insight into the current situation for mass-produced passenger and light commercial EVs, their features, charging infrastructure, as well as environmental impact and policy considerations.



Electric Vehicle

#218

EV Legislation & Incentives Guide

Electric vehicles have now cemented their place in the automotive mainstream, with their popularity growing exponentially as legacy OEMs and newer automakers continue to announce and roll out new solutions. This growth, and the increasingly strong market opportunity for EVs, has even led non-automotive players to reveal their own solutions with the intent to gain industry footing.

However, regardless of their experience or expertise, all players looking to sell their EVs on a global scale will equally have to navigate the legal landscape for them. They will likewise need to understand how it varies in different regions around the world today, how it is expected to evolve in the future, and the incentives offered by each region to encourage EV adoption.

The EV Legislation & Incentives Guide provides in-depth analysis of how and where legislation is impacting electrification. It aims to help OEMs and lawmakers understand the legal landscape and incentives offered for EVs today, and what legislation is being worked towards by governments in different regions. The guide is released quarterly to provide the latest updates and offers an accompanying Excel version featuring deep, data-driven, analysis.

COVERAGE



FREQUENCY



PUBLICATION FORMAT



PAGES



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Key questions answered

- > What is the impact of major legislation on the industry and market?
- > What are the regulations for charging infrastructure?
- > What is the likelihood that developing legislation will be implemented, and what is its impact?

This research supports



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Marketing



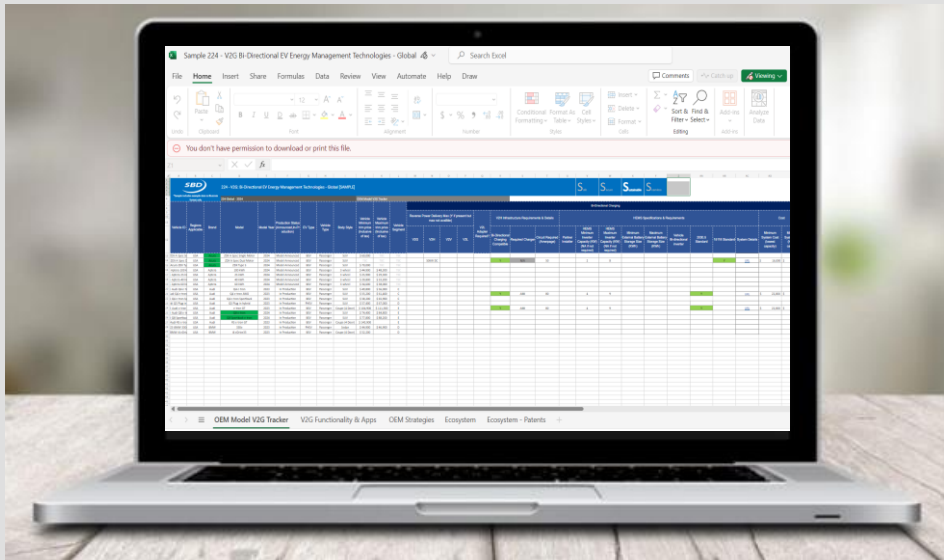
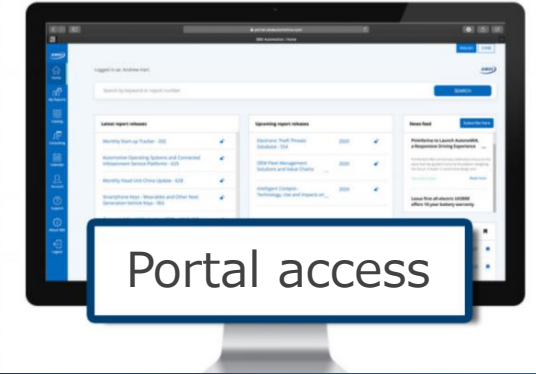
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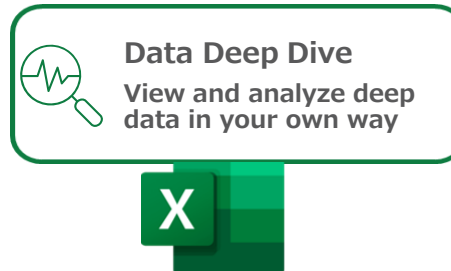
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Introduction



Introduction

In order to achieve their respective zero-emission targets, governments around the world are supporting the electrification of vehicles in many ways. On one hand, they are encouraging consumers to purchase EVs. On the other, they are also encouraging the vehicle manufacturers to prioritize electrification which is why automakers are investing heavily in electrification and looking beyond internal combustion engines (ICEs). This broad government support of electrification has been realized through various forms of incentivization and regulation.

The **EV Legislation & Incentives Guide** examines the opportunities and implications of laws, regulations, and standards, focusing on three primary regions: Europe, the United States, and China. The regulatory developments in other regions have also been captured, and they are collectively listed under 'Global' updates.

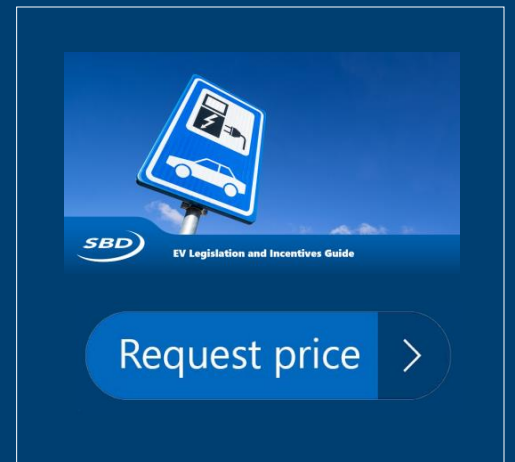
The EV Legislative & Incentives Guide has been created as a helpful reference tool, listing the most significant announcements as well as underlining the lessons to be learned from older/legacy publications so that readers can concentrate on the relevant topics. Each piece of legislation, best practice, incentive, and standard is described in the Guide with its current status and timeline.

In addition, there are dedicated sections highlighting the various country-specific incentives – tax benefits, registration fee waivers, charging equipment tax credits etc. and their likely impact on the overall EV sales volume.

Note: *This guide only highlights the actual regulatory activities and does not give any recommendations. This guide's analytical and forward-looking statements shouldn't be construed as legal advice.*

Section	Content
Birds Eye View	An overview of the key findings from SBD's various Legislation Guide, and adjacent reports.
The Basics	A brief overview of the different type of legal aspects (regulation, legislation, standards etc.) covered in this report along with the regions in focus.
Executive Summary	High-level overview of region-specific EV legislation, regulation, incentives, best practices/guidelines. Different countries across the world are trying to reach their goal of reduced emissions through rapid electrification of vehicles. The regulatory roadmap for each country varies significantly, as do the tools and mechanisms they use to achieve electrification targets.
Analysis	This section provides an understanding of key EV legislation and its impact on the industry and market. Some countries are seeing a significant boost in EV sales due to support from government policies and incentives, while others are struggling to create a meaningful adjustment.
Summary Tables	Summarizing the legislative activities identified in the associated Excel spreadsheet in terms of their recency and status.
Next Steps	Can SBD help you with any unanswered questions?

Example slides from the report



What? Snapshot of Key Regulatory/Legislative updates

	Draft Introduced* Legislation/Regulations recently introduced	Enforced/Published** Legislation/Regulations recently enforced
China	<p>Interim Regulations on the Administration of carbon Emission Rights Trading - The Regulation builds a basic institutional framework for the management of carbon emissions trading in six areas: 1. the legal status and responsibilities of registries and trading organizations; 2. the scope of coverage of carbon emissions trading, as well as the products, subjects and modes of trading; 3. the determination of key emission companies; 4. the allocation of carbon emission allowances; 5. the compilation and verification of emissions reports; 6. the clearing of carbon emission allowances and market trading</p>	<p>Nine departments: Several opinions on promoting the healthy and sustainable development of urban public transportation - On the basis of ensuring the implementation of low valley electricity prices for nighttime charging of new energy city buses in various regions, some periods of low valley electricity prices can be set up during the daytime to guide new energy city buses to charge more during these periods. The regulation also supports the construction of charging and swapping infrastructure for eligible public bus and electric vehicles.</p>
Europe	<p>Fit for 55 (partially enforced) - Fit for 55 is a package of legislative proposals introduced by the European Commission aimed at reducing greenhouse gas emissions by at least 55% by 2030 compared to 1990 levels and achieving climate neutrality by 2050. The proposals include revising the Emissions Trading System, introducing a Carbon Border Adjustment Mechanism, increasing the share of renewable energy (enforced from 31st Oct 2023), promoting energy efficiency, setting emissions standards for new vehicles and deal on charging and fueling stations for alternative fuels. The package will require significant changes across various sectors and involve substantial investments in clean technologies and infrastructure.</p> <p>Bi-directional regulation (under AFIR) - The implementation of both smart and bidirectional recharging(V2G) reduces recharging expenses for consumers. All newly constructed or renovated public charging stations in the EU from April 13, 2024 onward should be equipped to facilitate smart recharging.</p>	<p>European Green Deal - This plan was proposed by the European Commission to transform the EU into a sustainable and low-carbon economy by 2050. It aims to reduce greenhouse gas emissions, preserve biodiversity, improve public health, and promote sustainable production and consumption. The plan includes policies such as a Climate Law, Circular Economy Action Plan, Farm to Fork Strategy, Biodiversity Strategy, Renovation Wave, Sustainable Finance Strategy, Sustainable batteries and a Just Transition Mechanism. It is now being enforced, and EU member states are implementing measures to create a sustainable and resilient Europe. With the update on the new EU regulation on "Batteries and waste batteries" from 1, July 2024, only rechargeable industrial and electric vehicle batteries for which a carbon footprint declaration has been established, can be placed on the market.</p>
USA	<p>Wireless Electric Vehicle Charging Grant Program Act of 2023 - Wireless Electric Vehicle Charging Grant Program Act of 2023 legislation provides grants to entities for construction and improvement of existing wireless charging infrastructure and to publish an annual progress report to relevant committees on the operation of wireless charging infrastructure. The latest action on 14th July 2023 was "Referred to the Subcommittee on Highways and Transit" by the Committee on Transportation and Infrastructure.</p> <p>CARS (Choice in Automotive Retail Sales) - The CARs ACT aimed to block the EPA's proposal for more stringent light-duty vehicle emission standards for MY27+.The bill includes two provisions: one to block the EPA proposal outright, and another that would prevent the EPA from limiting automotive sales by engine type - effectively preventing the agency from enforcing an EV transition. The bill passed the House and has strong Senate support from Republicans and Dem. Senator Manchin. Though likely to fail in the Senate or, if passed, get vetoed, the bill signals a Republican party agenda to limit regulatory authority on vehicles - something to watch in 2024 elections. The EPA proposal on "Multi Pollutant Emissions Standards MY27" was published in March 2024 before the CARS bill could be passed, though the bill is still active in Congress. A Republican Administration following the next election would be likely to continue the push to restrict EPA programming and may even rollback the new standards, as the original Trump administration did with the SAFE rule.</p> <p>CAFE standards amendment - NHTSA is proposing a modification to the 2020 CAFE standards for passenger cars and light trucks 2024 -2026 model year with the aim to raise the standards at a rate of 8% per year instead of 1.5% per year previously established.</p>	<p>Multi-Pollutant Emissions Standards for Model Years 2027 and Later Light-Duty and Medium-Duty Vehicles - On March 2024, the Environmental Protection Agency (EPA) finalized its new motor vehicle emissions regulation for Model Years 2027 and later Light-Duty and Medium-Duty Vehicles, introducing more stringent emissions standards. The EPA employs performance-based criteria, permitting a blend of technologies to comply with the limits, without mandating specific technologies for automakers. These standards aim to further decrease harmful air pollutant emissions, utilizing advancements in clean car technology.</p> <p>Inflation Reduction Act (IRA) - The Inflation Reduction Act (IRA) was signed into law in August 2022 to combat inflation by promoting clean energy, reducing healthcare costs, and increasing tax revenues. The IRA includes tax credits for the purchase of qualifying plug-in electric vehicles, investments in renewable energy manufacturing facilities and provides alternative fuel refuelling property credits to businesses that are located in low-income or rural areas. Proposed interpretative guidance from December 2023 would limit eligibility for these incentives: to be eligible, vehicles must not contain battery components manufactured or assembled by a 'foreign entity of concern' beginning in 2024; vehicles may not contain critical minerals extracted, processed, or recycled by a 'foreign entity of concern' beginning in 2025. Under the proposed, clarified definition of 'foreign entity of concern,' 20+ models across multiple brands would lose tax credit eligibility.</p>

*In some regions (primarily outside the US) the word 'issued', 'proposed' are used for the legislations instead of introduced

**Standards and Guidelines/Best Practices are often not enforceable by law. They are introduced and reviewed by the subject experts before being published.

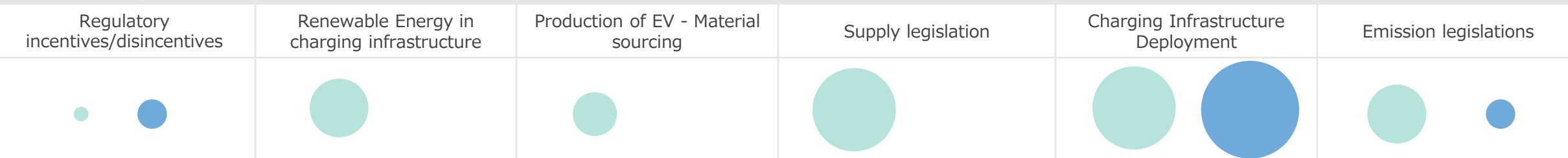


Europe – Legislation Overview

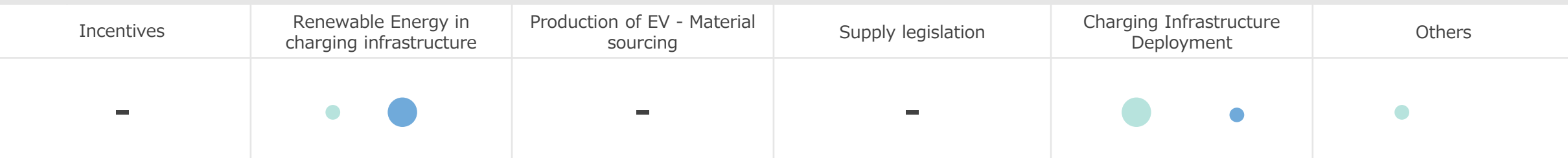
In Europe, most sustainability standards are established at EU level with a focus on incentives, and emission legislation. Single countries instead apply different incentives and emission regulations to limit greenhouse gas emissions.



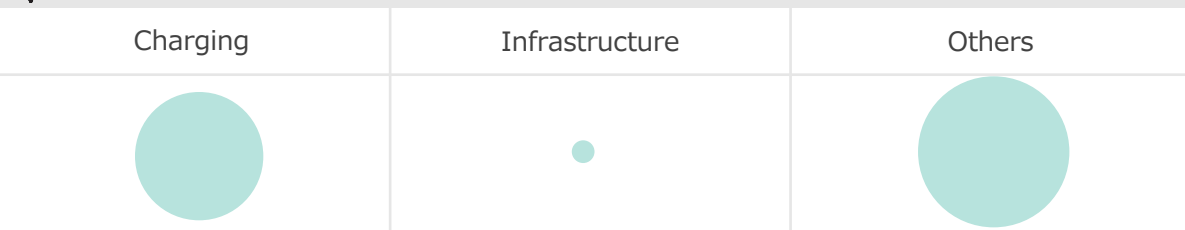
Regulations and Legislation



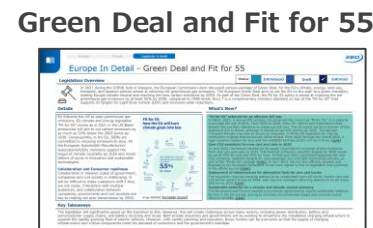
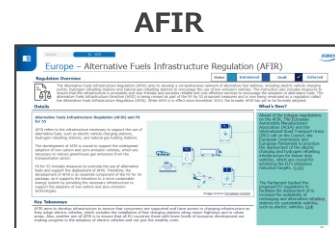
Guidelines and Best Practices



Standards



More analysis in this chapter





USA In Detail – Disincentives: Consumer/registration fees

Incentive Overview

Annual fee

\$150+

\$50 - \$ 150

Up to \$50

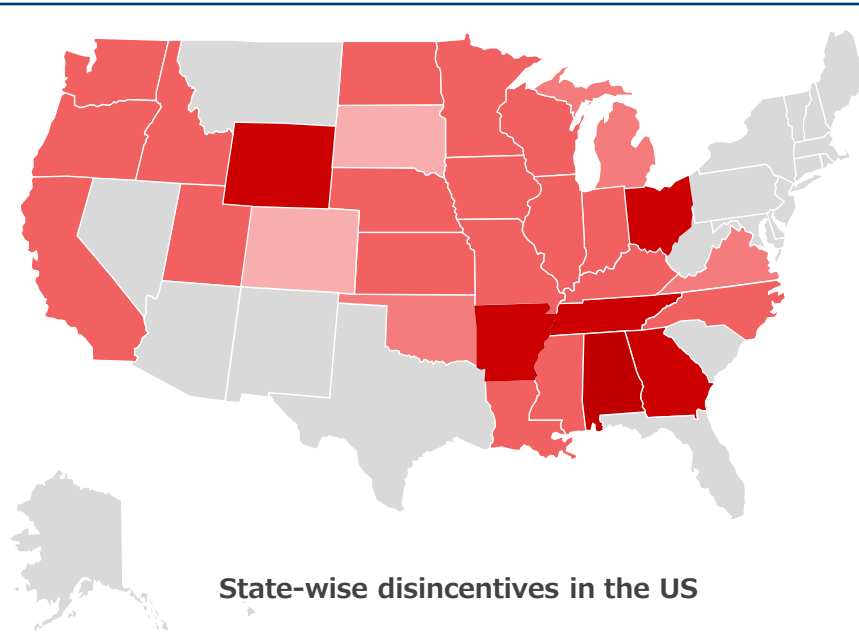


The Consumer fees/registration disincentive is the extra money that is being charged to the EV owners. There are about 30 States in the USA that has registration fees for EVs (as marked on the map). In addition to the registration fees, there are annual fees which are being taken from the EV owners. These fees serve unappealing to customers while purchasing new energy vehicles. The maximum annual fee charged for Alternative fuel is up to \$200, Also there are variations (like the difference of fees in BEV, PHEV and HEV) amongst the states on the charge of this fee.

Details

Following is the list of states having some extra differences:

Jurisdiction	Additional Information
Alabama	All-electric vehicle owners must pay an annual fee of \$200
Arkansas	In addition to registration fees, the annual fee is \$200 for all-electric vehicles.
Georgia	\$212.78 for non-commercial alternative fuelled vehicles (\$200 base fee)
Illinois	Flat fee that shall be based on an applicant's registration year for the vehicle's corresponding weight category
Michigan	An annual fee based on the Gross Vehicle Weight Rating (GRVW).
Missouri	Additional annual fuel decal fee for alternative fueled passenger motor vehicles up to 18,000 lbs.
Ohio	In addition to standard registration fees, \$200 additional annual fee for plug-in electric motor vehicles.
Wyoming	Owners of EVs must pay an annual decal fee of \$200



State-wise disincentives in the US

What's New?

- Hawaii:** Starting from July 1, 2025, EV owners may elect to pay an annual mileage-based road usage fee in lieu of paying an additional registration fee. The fee is \$0.08 per mile, up to \$50 per year. [\(Link\)](#)
- Tennessee:** Beginning on January 1, 2024, an EV fee must be paid in addition to all other motor vehicle registration fees prescribed by law. For all EVs, from January 1, 2024, and prior to January 1, 2027, the fee is \$200. [\(Link\)](#)
- Utah:** Starting in 2024, the commission will adjust the registration fees for EVs. For HEVs and PHEVs under 12,000lbs, the fee will be \$21.75 for each hybrid electric motor vehicle and \$56.50 for each plug-in electric vehicle. [\(Link\)](#)

Key Takeaways

Disincentives such as higher fees may make it more difficult for automakers to sell EVs, particularly in states where these fees are significantly higher than those for gasoline or diesel vehicles. Consequently, if fewer EVs are sold in these states, there may be reduced demand for components such as batteries, motors, power electronics, and associated software and services. This could lead to reduced economies of scale and potentially slower innovation in the EV supply chain. However, the impact of disincentives on OEMs and suppliers may be offset by other incentives and policies promoting the adoption of EVs.



China In Detail – Vehicle purchase incentives

Incentive Overview

Status	Draft Introduced	Draft	<input checked="" type="checkbox"/>	Enforced
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The vehicle purchase incentive supports EV buyers through cash-back or tax benefits, supporting the transition to new energy vehicles. Vehicle purchase incentives are one of the primary factors in the significant EV sales growth in China. China led all other nations in terms of EV sales numbers with 153% growth in 2021 compared to 2020 and moving forward in 2022, the growth was 83% (from 2021). In 2023, EV sales in China increased by 37.9% compared to 2022. The total number of EV sales for 2023 at 9.495 million.

Details

Jurisdiction	Incentive Identifier	Implication
Hainan	Notice on Encouraging the Application of Subsidies for the Promotion and Application of New Energy Vehicles	New energy operating vehicles can apply for a maximum of 30,000 ¥ in operation service subsidies and a maximum of 2,000 ¥ in charging fee subsidies
Guizhou	Several measures to accelerate the promotion and application of new energy trucks	From 2024 to 2026, new energy trucks using ETC to drive on highways in Guizhou will be given an 85% discount on tolls.
Jiangxi	Several Measures of Further Promoting and Expanding Consumption	In the second half of 2023, part of provincial development funds (100 million yuan) will be arranged for EV coupons.
Jilin	Several measures to stabilize the provincial economy	Buyers who purchase a new EV will be given a subsidy of around 3,000 to 6,000 ¥.
Guangdong (Shenzhen)	Luohu District invested 100 million ¥ for automobile consumption promotion activities	Buyers who purchase EVs from Nov. 13rd, 2023, to Jan. 31st, 2024, will be given a subsidy of 5,000 to 15,000 ¥.
Henan (Zhengzhou)	Zhengzhou City issues 50 million yuan in car vouchers	Buyers who purchase EVs from Jan. 1st, 2024, to Feb. 29th, 2024, will be given consumption coupons of 2,000 to 3,000 ¥.
Shandong	Promote Economic consolidation and Accelerate Green, low-carbon and high-quality Development	The proportion of new and clean energy in new or renewed taxicabs shall not be less than 80%. The first 2 hours of parking for new energy vehicles will be waived.

Key Takeaways

- Since China declared that the development and uptake of new energy vehicles was a national priority, it has committed itself to generous consumer subsidies, and the empowerment of province and city authorities to decide how to boost EV usage.
- Not only first-tier cities (Shanghai, Shenzhen, etc.) but also many second-tier and third-tier cities (Sanya, Shenyang, etc.) have started to provide subsidies for purchasing new energy vehicles to enhance the regional economy's development. Recently, China has also introduced several vehicle purchase subsidies and charging subsidies for new energy operating vehicles.

What's New?

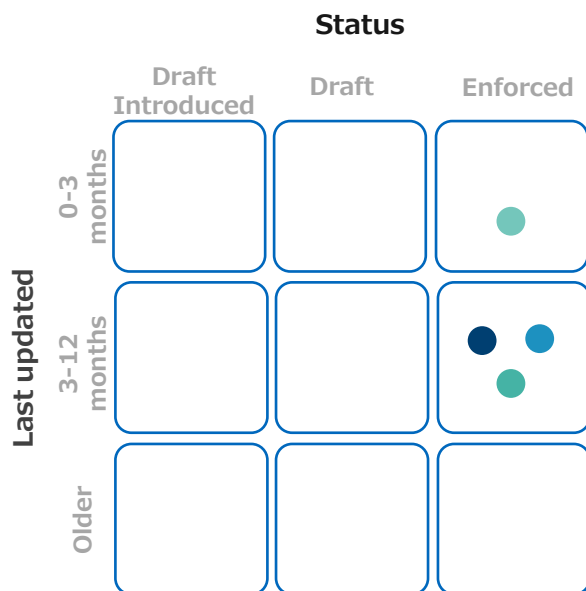
- For China's Purchase tax exemption policy for new energy vehicles, the country will extend its exemption of new energy vehicles from purchase taxes to the end of 2025 and extend its tax reduction to the end of 2027. [\(Link\)](#)
- Some first-tier cities, such as Shanghai, provide a one-time subsidy of 10000 ¥ to the individual user who switch to EVs. [\(Link\)](#)
- On June 1, 2023, Suzhou and Nanjing simultaneously launched subsidy activities for new energy vehicles. Both provide a subsidy up to 5,000 ¥ per vehicle. [\(Link Link\)](#)
- In 2023 Q4, Hainan and Guizhou introduced subsidy policies for new energy operating vehicles, such as trucks. [\(Link Link\)](#)



Global – Legislation/Regulation

Latest activity vs status

About the policy activity placement in the grid



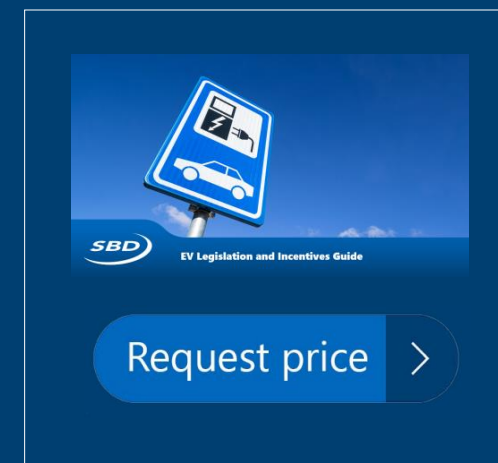
Title of the standard	Description of the standard	Next activity/milestone
Central Electricity Authority (Measures relating to the Safety and Electric Supply) Regulations (India)	Chapter XI outlines additional safety requirements for EV charging stations, including installing socket outlets at least 800 mm above ground level and ensuring a maximum distance of 5 meters between the charging point and the vehicle connection during charging. Portable socket outlets are prohibited for EV charging.	Enforced June 2023.
Central Electricity Authority (Technical Standards for Connectivity of the Distributed Generation Resources) Amendment Regulations, 2019 (India)	General safety requirements pertaining to construction, installation, protection, operation and maintenance of electric supply lines, Additional Safety requirements for electric traction.	Enforced June 2023.
Electric Charging Service Fees at Public Electric Vehicle Charging Stations ("Decree 182/2023") (Indonesia)	Minister of Energy and Mineral Resources issues Decree 182.K/TL.04/MEM.S/2023, setting service fees for public EV charging stations at Rp. 25,000 for fast charging and Rp. 57,000 for ultra-fast charging. Excludes VAT, subject to biennial evaluations. Operators must submit activity reports to the Minister, including fee details.	Enforced July 2023.
Acceleration of the Battery Electric Vehicle Program for Electric Transportation (Indonesia)	Indonesia's new presidential regulation, PR No. 79/2023 dated 8 December 2023, enhances incentives for electric vehicle (EV) import and development. It amends PR No. 55/2019, extending the d	Enforced December 2023.

Key highlights

- The India Central Electricity Authority regulation for measures relating to the Safety and Electric Supply, in its chapter XI of the Regulation outlines safety provisions for Electric Vehicle Charging Stations, emphasizing design, installation, testing, certification, inspection, and compliance requirements. The chapter also underscores the necessity of fire prevention measures for such stations.
- India Central Electricity Authority regulation number 53, establishes standards for charging stations, prosumers, and individuals connected to the electricity system, along with regulations concerning the registration of established charging stations. It outlines requirements for conducting studies prior to setting up charging stations and assessing grid capacity to meet energy demands.
- Indonesia's Presidential Regulation No. 79/2023, issued on 8 December 2023, amends regulations regarding electric vehicles, extending the deadline for the 40% minimum local content requirement to 2026 and postponing the threshold increase to 60% until 2027. This regulation also defines Battery-Based KBL vehicles as those powered by electric motors, receiving power directly from onboard batteries or external sources, aiming to boost EV import and development incentives.



Request the price





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