Australian National University

China's EV plans

Domestic market and policy developments & Australia-China links in decarbonisation

Policy Brief

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1. Introduction

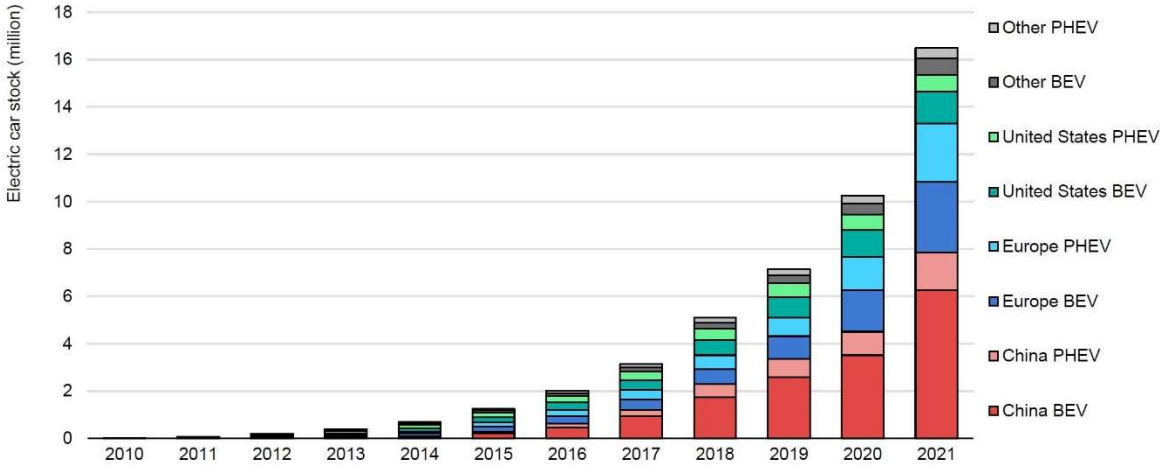
Progress in the transportation sector has played a substantial role in promoting China's economic development. It has the world's largest transportation infrastructure, including road and rail networks, which has contributed to urbanization and industrialization. However, the strengthening demand for transport services has been accompanied by an increase in CO_2 emissions from the transport sector (Xu & Xu, 2021).

China's transport sector's share in total energy consumption has been rising gradually over the years, to 7.1%, with carbon emissions close to 8.8% of the national total in 2020 (National Bureau of Statistics, 2022).

Global decarbonisation of the transportation sector has largely been due to the rise of electric vehicles, in particular in the passenger car segment. Global growth of the EV sector has accelerated in recent years, and is dominated by the EU, the US, and increasingly China (Figure 1). China has also become a leading developer and manufacturer of plug-in hybrid (PHEV) and battery electric vehicles (BEV).

The Chinese use a label of 'new energy vehicles', which includes several types of clean energy vehicles, such as electric, hybrid and hydrogen fuel cell vehicles. Pure electric vehicles form the bulk of these vehicle category in China, at 81.6% of all NEV by 2021.

Figure 1. Global electric car stock development (2010-2021) by key market



Source: (IEA, 2022). Notes: BEV = battery electric vehicle; PHEV = plug-in hybrid electric vehicle. Electric car stock in this figure refers to passenger light-duty vehicles.

2. China's EV sector

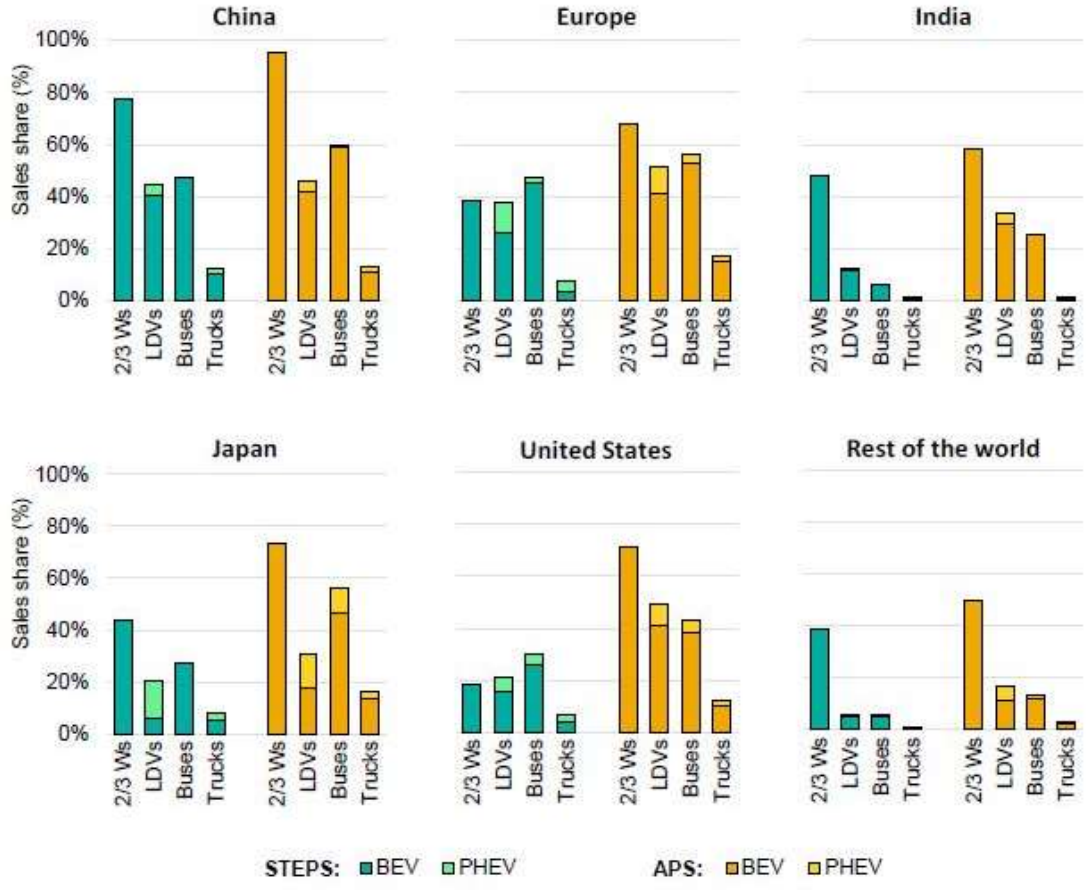
2.1 Domestic market development

China is one of the leading electric vehicle markets, where electric vehicles have reached price parity with conventionally fueled vehicles (Lutsey et al., 2021). China's new energy vehicle production and sales has experienced high growth, with sales reaching 7.22 million units over 2022, representing 63% of global EV sales. In China, NEV were 26.3% of total new vehicle sales within China, versus slightly over 10% globally (Pang, 2022; Zheng, 2023). The total Chinese vehicle fleet reached 417 million, including 319 million passenger cars, with about 13.1 million, or 4.1% of all passenger cars being NEV.

Studies show that for China to maintain steady progress toward its net-zero emissions by 2060 target, CO_2 emissions from new passenger cars should be limited to about 30 g/km in 2030 and to zero by 2035, whilst emissions from new commercial vehicles should be reduced by 74% by 2035 compared to the 2012 baseline (Zhang & He, 2022).

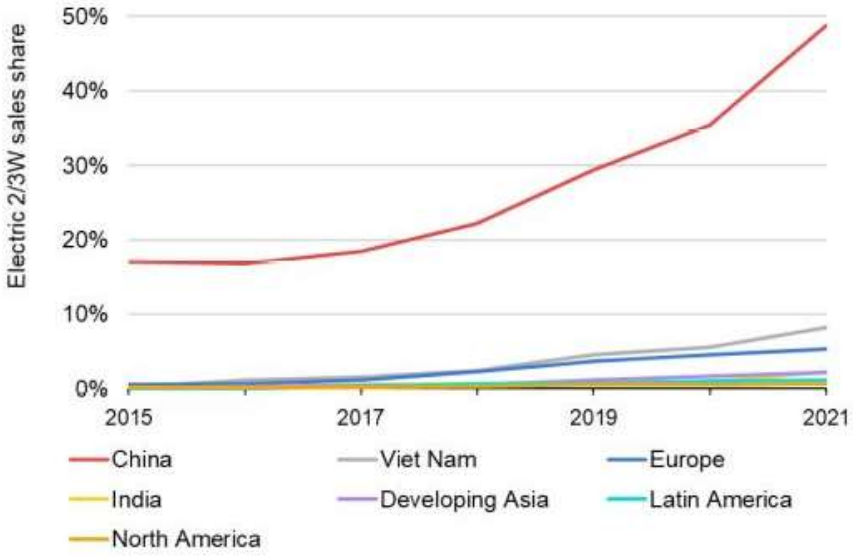
With strong government support, China has become a leading country in the electric trucks segment, and is expected to maintain leadership in trucks, buses and 2/3 wheelers in particular (Figure 2&3).

Figure 2. Forecast EV sales share by mode and scenario in selected regions, 2030



Note: STEPS: Stated Policies Scenario, APS: Announced Pledges Scenario. Source: (IEA, 2022)

Figure 3. Global 2/3 EV wheeler share by region, (2015-2021)



Note: source: (IEA, 2022)

2.2 Domestic industry development

In 2021, the manufacturing of EV in China experienced a boom, increasing 152.5% over the previous year (Sheng, 2022). After overtaking Germany in 2021, China became the world's second largest exporter of automobiles. According to the China Association of Automobile Manufacturers (CAAM), China exported 3.11 million vehicles in 2022, including 2.53 million passenger cars and 580,000 commercial vehicles, an increase of 54.4 % from 2021. Chinese electric vehicles are finding increasing demand in global markets, with 74,000 EV passenger cars shipped in the month of December 2022 alone (Ren D. , 2023; Automotive Market Research Subcommittee, 2023).

A key consideration in the development of the EV industry are its upstream industries for the supply of batteries and battery materials.

One particular concern for China is the supply of nickel, and important component in automotive batteries, demand of which has increased with China's EV industry growth. One forecast suggests that the battery industry's share of global nickel consumption will increase from 7% in 2021 to 37% in 2030 (Zhang et al., 2023).

Although China is a major producer of 16 key minerals, it has only 2.9% of the world's nickel deposits in 2021 (U.S.G.S, 2022). International trade has seen an increasing trend of mineral resource export restrictions including for nickel, creating concerns about the security of raw material supplies. At the same time, a number of countries including in the APAC region hope to improve their position in the value chain through downstream development of their mineral mining industry, providing opportunities for economic development for countries rich in mineral resources by benefiting from future global demand. For example, Indonesia considers the new energy vehicle industry as one of its future development priorities, and plans to produce 600,000 new energy vehicles by 2030 (Deputy Cabinet Secretary, 2022), but the mineral processing industry has insufficient capacity. Indonesia banned the export of nickel ore in 2014, requiring domestic processing of the ore, thus adding value to its nickel production.

In this context, China and other countries in the region have been seeking to establish overseas production bases and a global presence in the industry chain (Chen & Zhou, 2022). For example, the China-Indonesia Integrated Industrial Park Qingshan Park has built a complete industrial chain from upstream raw material nickel mining and ferronickel smelting of stainless steel, to downstream bar and plate processing, steel pipe manufacturing, finishing wire processing and terminal transportation, international trade, etc. (Xinhua News, 2022). In 2021, Indonesia's first nickel hydrometallurgical project using high-pressure acid leaching (HPAL) process was officially put into operation by China's Ningbo, as a joint venture between China's Liqin and Indonesia's Harita Group (Huber, 2021). This could produce important materials for new energy vehicle batteries and help alleviate China's growing demand for new energy vehicle components.

3. China's EV policies

The early development of EVs in China was driven by government subsidies for technological innovation, energy efficiency and environmental regulatory tools, later followed by consumer subsidies including a 50% reduction in vehicle purchase tax, and the "dual credit" system as the EV market expanded (Table 1). Industry development has been promoted with sectoral development plans, technical standard setting, tax credits and other instruments (Table 2), whilst charging infrastructure has been the subject of a number of national charging network construction strategies, charging standards, and in recent years, vehicle-to-grid development plans (Table 3).

One of the earliest plans targeting the sector was the "Major science and technology special project for electric vehicles", as part of the national "863" Plan, launched by MOST, and establishing the development layout of China's new energy vehicle industry. From 2008, vehicle enterprises and consumers were supported through policies such as taxes and financial subsidies, and several policies were issued to support related technological innovation (Table 1).

From 2010 to 2019, the Chinese government continued to subsidize new energy vehicles to stimulate production and consumption. In 2012, a sector specific "Twelfth Five-Year Plan" for electric vehicle science and technology development further established China's transition strategy to focus on the development of electric vehicles, and for the first time emphasized the promotion of the construction of charging facilities. With the 'Made in China 2025' plan, the development of the NEV industry was formally established as a national strategy, and the NEV sector entered into rapid development. Over this period, several government departments introduced further plans to guide the development of the new energy vehicle industry, including the 'Energy Conservation and New Energy Vehicle Industry Development Plan', 'Medium and Long Term Planning for the Automotive Industry', and the 'Energy Conservation and New Energy Vehicle Technology Roadmap' (more details in tables 1&2).

In 2021, China issued the "Management measures for the echelon utilization of electric vehicle batteries", which aims to improve use of EV battery packs in other applications after their removal from EV, including as part of China's long-term plan to develop smart networks and to achieve vehicle-to-grid integration.

China recently set stringent fuel consumption targets for passenger cars including electric vehicles (of 4.0 L/100 km and 12.0 kWh/100km) (State Council, 2020), a target that is in line with ambitions in other major markets such as Canada and Japan. Sales are also encouraged by.

With the gradual and stable development of China's new energy vehicle industry and the step-by-step withdrawal of government subsidies, the new energy vehicle industry has progressively shifted from policy-oriented to market-oriented, and the domestic new energy vehicle manufacturing and market has gradually matured, while actively exploring overseas markets and optimizing the global layout of production.

3.1 The ‘dual credit’ tradeable credit system

To stimulate market adoption and technological innovation, the relevant central government departments first announced a “Dual credits” policy system with strict guidelines for subsidies in 2017 and tightened it in 2019 (Wu et al., 2021). The “dual credits” policy guides and encourages vehicle manufacturers to produce NEVs by rewarding NEVs with positive credit and conventional fossil-fuel powered vehicles with negative credit. New energy vehicles are assigned a positive multiplier in the calculation of the corporate average fuel consumption, and regulations specify how many new energy vehicle credits each manufacturer must generate each year, with the number of credits increasing from 10% of manufacturer vehicle sales in 2019 to 18% in 2023. New energy vehicle credits are generated through the sale of new energy vehicles, with each vehicle generating a different number of credits based on its characteristics, and manufacturers with a credit deficit can purchase credits from manufacturers with a credit surplus. At the end of the year, each manufacturer must have a specified number of credits or face penalties. As a result, the credit system provides incentives for innovation in battery, powertrain and vehicle design to improve vehicle energy efficiency (International Energy Agency, 2021).

3.2 EV pilot city programs

One of the first major drivers of China’s domestic market for EV was the "Ten Cities and Thousands of Energy-saving and New Energy Vehicles Demonstration and Application Project", launched in 2009, by the Ministry of Science and Technology (MOST), the Ministry of Finance (MOF), the National Development and Reform Commission (NDRC), and the Ministry of Industry and Information Technology (MIIT). The plan ambitiously aimed to get to a 10% market share for NEV by 2012.

The plan included provisions including financial subsidies for 10 cities, for each of 3 years of the policy plan, to launch 1,000 NEV to carry out demonstration operations, including in public transport, rental, public service, municipalities, postal services, etc. The plan also provide subsidies of between 50 to 60,000 RMB to individual consumers purchasing electric cars. A total of 25 cities participated in first three batches of the "Ten Cities, One Thousand Vehicles" project, with the first batch including Beijing, Shanghai, Chongqing, follow by a second batch including Tianjin, Suzhou, and Guangzhou, and a third batch of 5 cities (China Automotive News, 2013).

This program helped push NEV to become the main mode of urban public transportation in China, with 59.1% pure electric buses, 12.16% hybrid and 0.44% hydrogen buses in the fleet in operation by year end 2021 (Tsinghua University, 2022).

By 2022, 84 Chinese cities have more than one million NEV on the road, with 21 of these cities with more than 3 million NEV (Ministry of Public Security, 2023). Three out of four cities with the highest number of NEVs in 2022 were amongst the pilot cities in the "10 Cities, 1,000 Vehicles" pilot project.

Table 1. China's Electric Vehicle Market Development Policies

Institute	Policy document	Major content
Ministry of Science and Technology (MOST)	National "863" plan electric vehicle major special projects (2001)	Established R&D layout for the development of fuel cell vehicles, hybrid and pure electric vehicles (Xinhua, 2001).
State Council, National Development and Reform Commission (NDRC)	Auto Industry Development Policy (2004)	Develop energy-saving and environmentally friendly small-displacement vehicles, and support the research and development of alcohol fuel, natural gas, mixed fuel, hydrogen fuel and other new energy vehicles (NDRC, 2004).
Ministry of Finance (MOF), Ministry of Science and Technology (MOST)	Notice on the implementation of energy-saving and new energy vehicle demonstration and promotion pilot work (2009)	Carrry out pilot projects for energy-saving and new energy vehicles in Beijing, Shanghai, Chongqing, Changchun, Dalian, Hangzhou, Jinan, Wuhan, Shenzhen, Hefei, Changsha, Kunming, Nanchang and 13 other cities. Promote the use of energy-saving and new energy vehicles in public services such as public transportation, rental, public service, sanitation and postal services, and give subsidies for the purchase of energy-saving and new energy vehicles (MF & MOST, 2009).
State Council	Automotive industry restructuring and revitalization plan (2009)	Set a target of more than 10 million units of vehicle production and sales in 2009, with a three-year average growth rate of 10%. Provide 5 billion RMB subsidy funds for farmers to buy buses and trucks, and add 10 billion RMB to develop energy saving, new-energy vehicles and special components and other technologies (State Council, 2009).
MIIT	Average fuel consumption of passenger car enterprises and new energy vehicle points parallel management approach (2017)	Corporate average fuel consumption (CAFC) points and production of new energy vehicles (NEV) points are accounted for almost all Chinese auto companies, including imported cars, and the "dual credits" system is used to evaluate the establishment of a points trading mechanism to form a market-based mechanism for the coordinated development of energy-efficient and new energy vehicles (MIIT, 2017).
MIIT, NDRC, MOST	Mid- and long-term development plan for the automotive industry (2017)	By 2020, aim to form vehicle component enterprises with valuation over 100 billion RMB and a number of the world's top 10 NEV enterprises, develop internationally competitive intelligent networked vehicles, and have auto after-market and service industry account for more than 45% of the value chain. By 2025, the global market share of Chinese

		NEV will be increased, and the share of automotive after-market and service industry will exceed 55% (MIIT, NDRC, & MOST, 2017).
State Council	The New Energy Vehicle Industry Development Plan (2021-2035) (2020)	By 2025, significantly enhance the competitiveness of the NEV market, and achieve major breakthroughs in vehicle batteries, drive motors, vehicle operating systems and other key technologies. The average electricity consumption of pure electric passenger cars is reduced to 12.0 kWh/100km, and NEV sales reach 20% of total car sales (State Council, 2020).
Ministry of Transportation and Communications (MOTC), NDRC	Green travel creation action plan (2020)	Promote the participation of cities with a population of 1 million or more in green travel initiatives, and by 2022, the proportion of green travel in cities will exceed 70%. Increase the scale of application of new energy and clean energy vehicles, with new energy and clean energy buses accounting for 60% or more in key regions (Beijing, Tianjin, Hebei and surrounding areas, Yangtze River Delta, Fenwei Plain and other regions), and not less than 50% elsewhere. At least 80% of new public transport vehicles will be new and clean energy vehicles (MOTC & NDRC, 2020).

3.3 EV manufacturing industry policies

In October 2006, the 11th Five-Year Plan for Science and Technology Development proposed to accelerate research and early stage deployment in the key fields of hydrogen and fuel cell technology. China issued several ‘guidance’ documents to promote the development of fuel cell and battery vehicles for businesses, including the "Made in China 2025" strategy, released in 2015 (State Council, 2015; MIIT, 2016).

China has long viewed batteries as a strategic industrial sector, and its 14th Five-Year Plan (2021-2025), released in mid-2021, focuses on "strategic emerging industries," which include new energy vehicles (NEVs). It provides guidance for national and local governments to develop plans that include a focus on improving the quality and standards of new energy vehicle manufacturing, as well as focused R&D efforts on next-generation battery chemistry. This document also mentions promoting the development of the nano-ion battery industry during the 14th FYP period, using industry and product standards to achieve scale, low cost, and improved battery performance. Sub-national five-year plans focus on working with large electric vehicle, component, and battery manufacturers to integrate NEV production with battery manufacturing and recycling systems. They aim to support NEV production in industrial development zones through incentives such as tax exemptions, preferential loans and co-financing, and the development of industrial production sites. The “New Energy Vehicle Battery Reuse Management Measures”, released in August 2021, aim to regulate and further develop the industry by requiring battery companies to be responsible for managing the entire life cycle of reused product (design and production, packaging, transportation and battery recycling) to ensure product quality, product certification and environmentally responsible disposal.

In 2021, MIIT proposed minimum performance requirements for battery durability, with a minimum of 1,000 cycles for EV batteries and 5,000 cycles for energy storage batteries, with a minimum capacity retention of 80% (MIIT, 2021). This is critical to increasing consumer trust and improving the environmental performance of batteries.

China currently leads the entire downstream supply chain for electric vehicle batteries. The global battery supply chain is concentrated in China, which produces three-quarters of all lithium-ion batteries and has production capacity for 70% of the cathodes and 85% of the anodes that are key components of batteries. China's leadership in EV battery capacity is a direct result of more than a decade of policies that prioritize an integrated domestic supply chain (IEA, 2022).

Table 2. China's Electric Vehicle Manufacturing Policies

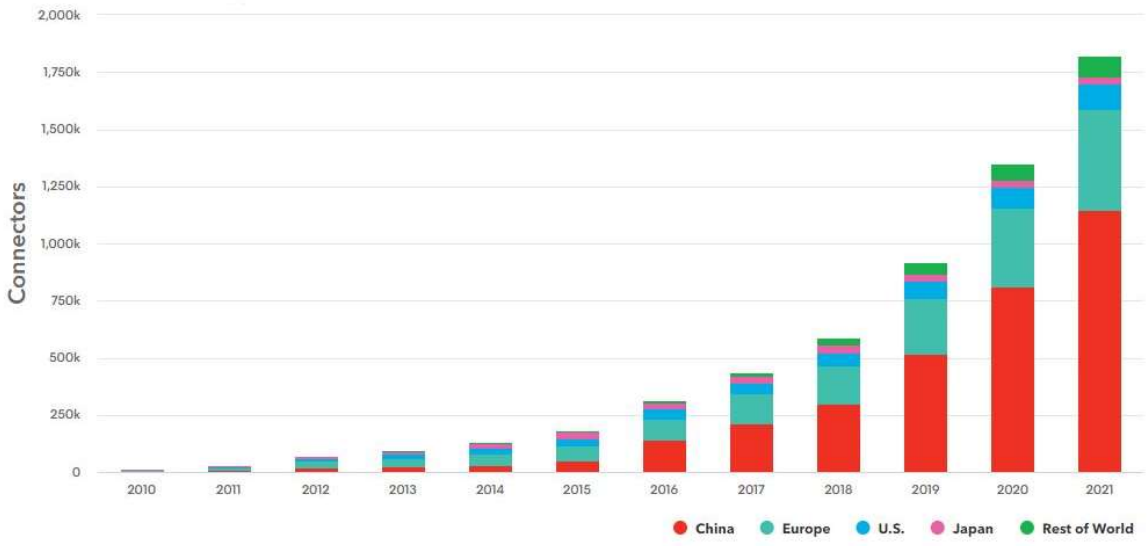
Institute	Policy document	Major content
MOST	Electric vehicle science and technology development "Twelfth Five-Year Plan" special plan (2012)	Proposed the development of hybrid, pure electric, fuel cell electric vehicle core technologies, focusing on battery, motor, electric control and other technologies and solve commercialization bottlenecks. By 2015, achieve key technological breakthroughs in 29 technological innovation directions, such as complete vehicles, key components and public platforms, and expect to apply for more than 3,000 patents on core electric vehicle technologies. Newly build more than 25 technology innovation platforms in the field of energy-saving and new energy vehicles, conduct large-scale demonstration and promotion in more than 30 cities, and conduct pilot application of new commercialization models in more than 5 cities (MOST, 2012).
Ministry of Finance, MIIT, MOST, NDRC, NEA	Notice on the Demonstration and Application of Fuel Cell Vehicles (2020)	The five departments have adjusted the purchase subsidy policy for fuel cell vehicles to a fuel cell vehicle demonstration application support policy, which rewards for the industrialization of key core technologies for fuel cell vehicles and demonstration applications. Focus on promoting the demonstration of medium- and long-distance, medium- and heavy-duty fuel cell commercial vehicles as a supplement to pure electric vehicles (Ministry of Finance, MIIT, MOST, NDRC, & NEA, 2020).
State Council	New Energy Vehicle Industry Development Plan (2021-2035) (2020)	By 2025, vehicle batteries, drive motors, vehicle operating systems and other key technologies have made major breakthroughs. The average electricity consumption of pure electric passenger cars is reduced to 12.0 kWh/100km, and the sales volume of new energy vehicles exceeds 20% of total car sales (State Council, 2020).
MIIT	Lithium-ion battery industry specification conditions (2021 version)	Lithium-ion plant expansion should only be allowed if actual production is guaranteed to exceed 50% of production capacity, setting technical standards for minimum energy density (180 wh/kg for cells and 145 kw/kg for storage batteries), cycle life, and encouraging the development of the lithium-ion battery industry (MIIT, 2021).
NDRC, NEA	Regarding Further promote the participation of new energy	Allow independent energy storage to participate in the power market, encourage its joint participation in the power market with its power source, and promote

	storage in the power market and the use of scheduling (2022)	independent energy storage to cooperate with grid peaking (NDRC & NEA, 2022).

3.4 Charging infrastructure policies

In 2012, a sector specific "Twelfth Five-Year Plan" for electric vehicle science and technology development first emphasized the promotion of the construction of charging facilities. During the "13th Five-Year Plan" period (2016-2020), China's charging infrastructure and charging technology has been rapidly developed, forming a charging infrastructure system with the largest number, the largest area covered and the system compatible with most vehicles in the world (Figure 3). However, there are outstanding problems such as difficulty in building charging piles in residential communities, uneven development of public charging facilities, and improvements need in user charging experience as well as the supervision of industry quality and safety (NDRC, et al., 2022). Charging infrastructure planning has received attention from central and local governments in all regions of China, since EV ownership started to take off in about 2015 (Table 3). In November 2021, China began implementing the first national standard for the automotive industry in the area of battery swaps, "Safety Requirements for Electric Vehicle Battery Exchange" (MIIT, 2021).

Figure 3. Cumulative global public charging connectors



Source: (BloombergNEF, 2023)

Table 3. China's charging infrastructure policies

Institute	Policy document	Major content
NDRC, NEA, MIIT, MOHURD	Guidelines for the Development of Electric Vehicle Charging Infrastructure (2015-2020) (2015)	Set a target for charging facilities at 12,000 new centralized charging stations and battery swap stations and 4.8 million decentralized charging piles by 2020, to meet the charging needs of 5 million electric vehicles nationwide (NDRC, NEA, MIIT, & MOHURD, 2015).
State Council	About Guidence on accelerating the construction of electric vehicle charging infrastructure (2015)	By 2020, establish a relatively perfect standard and market supervision system, form a sustainable "Internet + charging infrastructure" industrial ecosystem, and make breakthroughs in technology and commercial innovation (SC, 2015).
Ministry of Housing and Urban-Rural Development of the People's Republic of China (MOHURD)	Notice on strengthening the planning and construction of urban electric vehicle charging facilities (2016)	Integrate electric vehicle charging facilities as an important public infrastructure into urban planning, and form a charging network mainly with facilities in the user's residence, aided by public charging facilities at public parking lots. 100% of newly built residential parking spaces will have charging facilities installed or space reserved, and public parking lots will have charging facilities on at least 10% of all spots. There will be at least one fast charging station for every 2,000 EV (MOHURD, 2016).
NEA	Letter seeking comments on the implementation plan to strengthen the standardisation of energy storage technologies (2018)	Promote the development of energy storage technology and industry, and carry out the development of a system of energy storage standards. During 13th FYP (2016-2020) improve the standardized technical organizations and strengthen the cooperation between standardized management agencies and technical organizations; in the 14th FYP (2021-2025), form a more complete technical standard system for energy storage and actively participate in international activities for energy storage standardization (NEA, 2018).
NDRC, NEA	Guidance on accelerating the development of new energy storage (2021)	By 2025, the installed capacity of new energy storage will reach more than 30 million kW. By 2030, achieve the full market-oriented development of new energy storage, and the deep integration and development of all aspects of the power system (NDRC & NEA, 2021).
NDRC, NEA	Implementation Plan for the Development of New Energy	Focus on energy storage technology innovation, pilot demonstration and new power system construction, and promote new energy storage to

	Storage in the 14th Five-Year Plan (2022)	participate in various types of power markets. It also proposes to improve the system of standards of the whole industry chain of new energy storage and develop safety-related standards, establish an international energy storage cooperation mechanisms, build a cooperation platforms and expand cooperation areas (NDRC & NEA, 2022).
Ministry of Transport (MOT)	Green Transportation "14th Five-Year Plan (2022)	Accelerate the promotion and application of new energy and clean energy transportation equipment (highways, passenger hubs and other regional charging (or battery swap) facilities construction. Develop and revise new energy vehicle battery standards (MOT, 2022).
NDRC, NEA, MIIT, MF, Ministry of Natural Resources (MNR), MOHURD, MOT, Ministry of Agriculture and Rural Development (MOR), Ministry of Emergency Management (MEM), State Administration for Market Regulation (SAMR)	National Development and Reform Commission and other departments on further enhancing the electric vehicle Charging infrastructure services to ensure the implementation of views (2022)	Promote the construction and installation of charging facilities in residential communities, 100% of fixed parking spaces in new residential communities to build charging facilities or reserved installation conditions. Encourage charging operation enterprises or residential communities to manage and provide charging facility construction, operation and maintenance, and improve the safety management level of charging facilities. Increase the proportion of renewable power consumption by charging facilities. Encourage new models for shared or public use of charging piles. Optimize the layout of urban public charging network construction, and improve the charging and battery swap capacity in urban and rural areas. Accelerate highway fast-charging network coverage: By 2025, the coverage rate of fast-charging stations in highway service areas in key areas will be no less than 80%, and no less than 60% in other areas. Support power grid companies to join with car companies and other upstream and downstream industry chain to create new energy vehicles and intelligent energy integration innovation platform. Research and improve the trading and dispatching mechanism of consumption, storage and release of renewable electricity by EV. Carry out pilots for integrated PV and charging facilities at parking lots (NDRC, et al., 2022).

4. Relevance for Australia

Key minerals include lithium, nickel, cobalt, graphite and other elements associated with energy storage (e.g., batteries). More than half of the lithium, cobalt and graphite processing and refining capacity is located in China, while the mining required for batteries typically occurs in resource-rich countries such as Australia, Chile and the Democratic Republic of Congo (IEA, 2022). According to the IEA, demand for these key minerals will double by 2040 compared to 2020 under existing national clean energy policies. To meet the Paris Agreement targets, the demand for minerals needed for clean energy will rise to four times the 2020 level, and if the world is to become carbon neutral by 2050, the demand for minerals will increase fivefold. By 2030, the supply of lithium alone will need to increase by one-third to match the demand for electric vehicle batteries (IEA, 2021).

The high demand for batteries has stimulated a significant increase in demand for key metals used in the production of batteries. From the start of 2021 through May 2022, lithium prices increased more than sevenfold, cobalt prices more than doubled, and nickel prices nearly doubled during the same period. Due to past low lithium prices, some producers have delayed or even scaled back planned projects and expansions. For example, Australian mining company Galaxy Resources has reduced lithium production at its most important mine by about 40% in 2019, as have other Australian lithium miners. Lithium prices have reached unprecedented levels as the EV market has expanded. Lithium hard rock (spodumene) is mainly mined in Australia. Currently, the top five lithium suppliers account for about half of global lithium production, with two of them, Pilbara Minerals and Allkem, in Australia. As the world's largest producer of lithium and one of the world's largest producers of nickel, the Australian federal government has provided financial support and streamlined regulatory approvals for key minerals to support their development. In September 2021, Australia released a $1.3 billion loan facility for key minerals, including electric vehicle battery production. Later in December 2021, the federal government awarded a $2.4 billion battery minerals "Major Project Status" on nickel and cobalt mine, materials processing and recycling facility of battery minerals complex in the New South Wales, making it the world's largest battery minerals complex operating on renewable energy(IEA, 2022).

China is fast becoming one of Australia's largest sources of new vehicles, which could accelerate the transition away from fossil fuel-powered transport. According to the Federal Motor Industry Association, sales of Chinese-made vehicles in Australia total 122,845 in 2022, up 61.1 % from the previous year, making it the fourth largest source of imports. Dominant Japan accounts for just under a third of the car market and saw sales fall by nearly 6 % for the year. Behyad Jafari, chief executive of the Electric Vehicle Council of Australia, believes the rise of Chinese automakers could accelerate the transition with low-cost offerings that allow more Australians to make the switch to EV (Hannam, 2023).

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