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The Determinants of Indonesia's Decision to Cooperate with Australia in the Electric Vehicle Ecosystem in 2023

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Abstract

Background: Amid rising global demand for electric vehicles, Indonesia (among the world's foremost nickel producers) has aimed to broaden its role within the global electric vehicle supply chain. To achieve its ambition, Indonesia signed a memorandum of understanding with Australia to develop an electric vehicle ecosystem in November 2023. The alliance with Australia is especially noteworthy, considering that Indonesia had earlier forged a strategic partnership with South Korea, a nation recognised for its advanced electric vehicle technology development.
Objective: This research seeks to determine the factors shaping Indonesia's decision to collaborate with Australia in building the electric vehicle ecosystem. Method: This study applies an explanatory qualitative design using secondary data books, scientific journals, research reports, and government and institutional publications analysed through William D. Coplin's Decision-Making Theory.
Result: Based on William D. Coplin's Decision-Making Theory, this research pinpoints three drivers behind Indonesia's cooperation with Australia on the electric vehicle ecosystem: bureaucratic influence, the country's economic ambition, and global political dynamics. These forces encompass the shift in battery feedstock from nickel to lithium, the passage of the United States' Inflation Reduction Act (IRA), and the strategic relationship between Australia and Indonesia.
Conclusion: Domestic interests and the international context intersect, culminating in the accord between Indonesia and Australia to develop the electric vehicle ecosystem.

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INTRODUCTION

To overcome global warming, several sustainable technologies have begun to be developed to minimize carbon emissions (Reform, 2021; Wijaya & Ahmad, 2024). The transport sector ranks among the priority areas for advancing sustainable technology, given that it is responsible for nearly one-quarter of worldwide emissions. Within this framework, advancing electric vehicles represents a pivotal measure for curbing carbon emissions arising from transportation. Through the development and adoption of electric vehicles, it is hoped that it can gradually replace the use of fossil fuel vehicles. According to Jannesar et al. (2024), the development of electric vehicles is like a double-edged sword. On the one hand, the development of electric vehicles can be a solution to the environmental crisis and contribute to national economic growth. On the other hand, the development of electric vehicles creates new challenges for Environmental, Social, and Governance (ESG) has the potential to trigger overexploitation of natural resources, horizontal conflicts, and human rights violations.

Aderibigbe and Gumbo (2023) On a global scale, the advancement of electric vehicles is inextricably linked to the backing and dedication of nations worldwide. Nevertheless, it must be recognized that the uptake and progress of electric vehicles remain concentrated in economically advanced regions, namely the United States (US), China, and Europe. By contrast, the deployment and growth of electric vehicles across developing nations continue to be markedly restricted. According to the IEA, more countries in the world are setting ambitious targets to adopt electric vehicles at the domestic level. In fact, public spending on subsidies and incentives for electric vehicles has reached 30 billion US dollars globally. The strong commitment of these world countries has had an impact on increasing sales of electric vehicles, of which global electric sales reached 6.6 million in 2021. Unlike the previous 10 years, only 120,000 units of electric vehicles were sold globally. This trend of global electric vehicle sales continues to increase in 2022, almost around 2 million electric vehicles were sold in the first quarter.

AEML and Ventures (2023) and Reform (2021) as worldwide demand for electric vehicles rises, a growing number of nations (Indonesia among them) have begun participating in building the electric vehicle ecosystem. This ecosystem itself comprises multiple elements, including the provision of charging infrastructure, electric vehicle availability, societal awareness and acceptance, the battery supply chain and vehicle components, as well as sufficient enabling policies and incentives. In simple terms, the electric vehicle ecosystem includes upstream and downstream industries, starting from mining; critical mineral processing; battery component production; electric vehicle manufacturing; and charging infrastructure. Among Southeast Asian states, Indonesia stands out as one aspiring to assume a leading role within the electric vehicle ecosystem. Indonesia's ambition to become a major player in the electric vehicle ecosystem is contained in several regulations. Beginning with Presidential Regulation No. 22 of 2017 on the National Energy General Plan (RUEN), the country aims for the adoption of 2,200 electric cars and 2.1 million electric motorcycles by 2025. Beyond this, the Ministry of Industry has established a production goal within its automotive-sector roadmap for electric vehicles to account for 20% of total vehicle output by 2025.

Pandyaswargo et al. (2021) and Setiani et al. (2024) Indonesia's drive to hasten electric vehicle development is likewise evident in the enactment of Minister of Energy and Mineral Resources (ESDM) Regulation No. 11 of 2019 and Law (UU) No. 3 of 2020, (which obliges all mining firms to undertake downstreaming, raising the added value of minerals, within the country prior to export. Such efforts are further reinforced by the promulgation of Presidential Regulation (Perpres) No. 55 of 2019 on accelerating the battery-based electric motor vehicle program. The Presidential Regulation is a legal umbrella to accelerate the development and adoption of domestic electric vehicles.

Despite the numerous regulations supporting the electric vehicle (EV) ecosystem, research by Schröder and Iwasaki (2023) indicates that national policies, such as nickel downstreaming, are not the primary drivers of Indonesia’s domestic EV industry. Rather, an analysis of forward linkages between upstream nickel smelters and the downstream EV industry suggests that the global value chain (GVC) strategies of firms such as Contemporary Amperex Technology Co. Limited (CATL), Hyundai, and LG Energy Solution are the principal forces driving the industry’s development in Indonesia.

Several previous studies such as those of Pandyaswargo et al. (2021) and Raharyo et al. (2022) have examined the strengths and weaknesses of Indonesia in the development of electric vehicles. Indonesia's advantages encompass plentiful natural resources, a sizeable population serving as a potential market, strong human resource (HR) productivity, and considerable workforce experience in the automotive sector. Conversely, its shortcomings include insufficient electric vehicle development technology, limited consumer purchasing power, and weak public awareness of the importance of the clean energy transition. Relative to Thailand, a notable electric vehicle producer in Southeast Asia, Indonesia continues to lag considerably in manufacturing capacity. Even so, the production of electric vehicles in Indonesia can provide more benefits for consumers, considering that electric vehicles made in Indonesia have a cheaper selling value than Thailand.

El Shaddai et al. (2023) and Wijaya and Sinclair (2024) Indonesia is not alone in realizing its ambition as a major player in the global electric vehicle ecosystem. In 2023, Indonesia formally entered into cooperation with Australia on developing the electric vehicle ecosystem. This is not

the first time Indonesia has collaborated with other countries in the development of electric vehicles. Earlier, South Korea had already taken part in advancing electric vehicles within Indonesia. Cooperation between Indonesia and South Korea in the development of domestic electric vehicles is carried out through three schemes, namely Government-to-Government (G2G) is summarized in Memorandum of Understanding (MoU) Concerning Cooperation in the Field of Transport and MoU Concerning Industrial Cooperation; Government-to-Business (G2B) through the MoU on Electric Car Investment Cooperation between the Government of Indonesia and Hyundai Motor; and Business-to-Business (B2B) through the collaboration of PT Industri Baterai Indonesia (IBI) with LG Energy Solutions and Hyundai Motor Company. Zein and Susanto (2023) identified two principal reasons behind choosing South Korea as Indonesia's strategic partner for electric vehicle development, specifically the presence of Mutual Trust in Special Strategic Partnership (CNS) and Mutual benefit for both countries.

S. RI (2022) and Nurhayati (2025) Over the past two years, Indonesia has actively lobbied Australia to establish bilateral cooperation in the development of electric vehicles. The growing Indonesia–Australia rapport concerning electric vehicle development was first raised by President Jokowi during the B20 Summit meeting on 14 November 2022. During the meeting, President Jokowi said that industrial downstreaming is one of Indonesia's strategies to encourage the development of a domestic electric vehicle ecosystem. He further noted that he had proposed to Australian Prime Minister Anthony Albanese that the two nations trade important minerals (Critical Minerals) to support electric vehicle development. Both countries do have vital mineral reserves for electric vehicles, namely Indonesia which is rich in nickel and Australia with abundant lithium reserves.

K. P. RI (2023)This bilateral momentum toward an electric vehicle ecosystem advanced through a meeting between the Indonesian Chamber of Commerce and Industry (KADIN) and the Western Australian State Government, which produced an MoU on 21 February 2023 concerning critical-mineral supply-chain partnerships for the battery and electric vehicle industries. Although the MoU only accommodates Indonesia's collaboration with the Australian state, the memorandum of understanding is a stepping stone to realize Indonesia-Australia bilateral cooperation in the electric vehicle sector. In addition, the Chamber of Commerce also met with several Australian mining companies, including Global Lithium, Lightning Minerals and Mineral Alliance Asset Ltd. Indonesia's agreement with Western Australia was followed up with the signing of the MoU implementation Action Plan of the two countries on July 4, 2023. This action plan was intended to elaborate the earlier memorandum on critical-mineral partnerships for the 2023–2025 period and to embody the Economic Powerhouse concept conveyed in the Indonesia-Australia Economic Partnership Agreement (IA-CEPA).

Australia (2023) and Veza et al. (2022) At the same time on July 4, 2023, President Jokowi visited Australia to attend Australia-Indonesia Annual Leaders' Meeting. According to the joint communiqué, one of the points agreed by Indonesia and Australia was to deepen cooperation and collaboration in electric vehicle development. Both leaders commended the electric vehicle cooperation forged between the Chamber of Commerce and the Western Australian State Government, expressing hope that the two nations together with ASEAN might work jointly to advance the clean energy transition. At its peak, on November 24, 2023, Indonesia, represented by the Coordinating Minister for Maritime Affairs and Investment (Coordinating Minister for Maritime Affairs and Investment) Ad Interim, and Australia, represented by the Minister of Industry and Science, signed "MoU on the Establishment of a Bilateral Mechanism to Progress Electric Vehicle Collaboration between Indonesia and Australia." Under the memorandum of understanding, the two countries are committed to strengthening collaboration in supply chain mapping, research, and strengthening Business-to-Business (B2B) networks in the electric vehicle ecosystem. This MoU is a manifestation of the results Australia-Indonesia Annual Leaders' Meeting in July.

K. RI (2024) and Hsu (2022) The cooperation between the two countries in electric vehicles is indeed relatively new. Nonetheless, electric vehicles have become one of the domains progressively reinforcing bilateral ties between Indonesia and Australia. This was reaffirmed by President Jokowi at the ASEAN-Australia Summit on March 5, 2024. During those talks, President Jokowi underscored four key measures for bolstering Indonesia–Australia relations, among them the execution of a cooperative MoU on building the electric vehicle ecosystem. President Jokowi

also encouraged the two countries to prioritize cooperation over competition in minerals that are important for electric vehicles.

Cooperation in the development of electric vehicles represents a relatively new dimension of Indonesia–Australia bilateral relations. Earlier research on bilateral economic cooperation has largely centred on the Indonesia–Australia Comprehensive Economic Partnership Agreement (IA-CEPA), regarded as a key institutional basis for enhancing economic ties between the two nations (Heap & Kingsley, 2020; Khairunnissa, 2024; Murtasidin, 2021). However, studies specifically examining the determinants of Indonesia's decision to cooperate with Australia in developing the electric vehicle ecosystem remain limited. This gap is particularly relevant because Indonesia had previously established strategic cooperation with South Korea, a country with more established capabilities in electric vehicle technology and manufacturing. Therefore, this study aims to identify and explain the factors underlying Indonesia's decision to cooperate with Australia in the development of the electric vehicle ecosystem in 2023. Academically, the study contributes to the foreign-policy decision-making literature by applying Coplin (2003) and Sefriani (2022) framework to the context of critical-mineral and electric-vehicle diplomacy, while practically, its findings may provide insights for policymakers in formulating future international partnerships to strengthen Indonesia's electric vehicle supply chain.

The selection of Australia is particularly noteworthy because Indonesia had previously established South Korea as a strategic partner in electric vehicle development. South Korea possesses more extensive experience in the worldwide electric vehicle industry, including involvement in the Electric Vehicles Initiative and the creation of advanced sustainable automotive technologies (Agency, 2016, 2017; El Shaddai et al., 2023; Zein & Susanto, 2023). Nevertheless, Indonesia actively pursued cooperation with Australia despite these differences in technological capacity. This creates an important analytical question regarding the considerations underlying Indonesia's choice of Australia as a partner. The novelty of this study lies in applying William D. Coplin's decision-making framework to explain Indonesia's selection of Australia by integrating domestic political influences, economic interests, and international political dynamics, an analytical perspective that has received limited attention in previous studies of IA-CEPA, critical minerals, and Indonesia's resource-based electric vehicle strategy.

METHOD

This study employed an explanatory qualitative research design to examine the factors underlying Indonesia's decision to cooperate with Australia in developing the electric vehicle ecosystem in 2023. A qualitative method was chosen because the research centers on interpreting political, economic, and international factors evident in documents and prior literature, rather than quantifying associations among numerical variables. An explanatory design is fitting for this inquiry, as it aims to clarify why the cooperation came about and how various determinants shaped Indonesia's foreign-policy choice. Consistent with qualitative research procedures, the study involved defining the research focus, collecting relevant documentary evidence, analyzing and interpreting the data, and relating the findings to William D. Coplin's Decision-Making Theory (Bryman, 2012; Coplin, 2003; Creswell & Creswell, 2023; Neumasn, 2014).

This research drew on secondary data sourced from books, academic journals, research reports, government publications, media coverage, seminar materials, and other pertinent documentary records. The sources were purposively selected based on three criteria: relevance to Indonesia–Australia cooperation in the electric vehicle sector, publication within the 2017–2024 period, and source credibility, particularly peer-reviewed publications, official government documents, and reputable institutional reports. Data analysis was conducted in three stages. First, relevant information was reduced and coded according to the focus of the study. Second, the coded evidence was categorized according to Coplin's determinants of foreign-policy decision making, particularly domestic politics, economic interests, and the international context. Third, the categorized evidence was interpreted using Coplin's Decision-Making Theory and compared with findings from previous studies to explain the considerations underlying Indonesia's decision to cooperate with Australia.

RESULTS AND DISCUSSION

Results

This research observes that not every foreign-policy determinant outlined by Coplin bears on Indonesia's choice to partner with Australia in electric vehicle development. In this instance, the authors find that military considerations play no part in Indonesia's decision to collaborate with Australia on the electric vehicle ecosystem. The following is an analysis model to identify the reasons for Indonesia to cooperate with Australia in the development of electric vehicles:

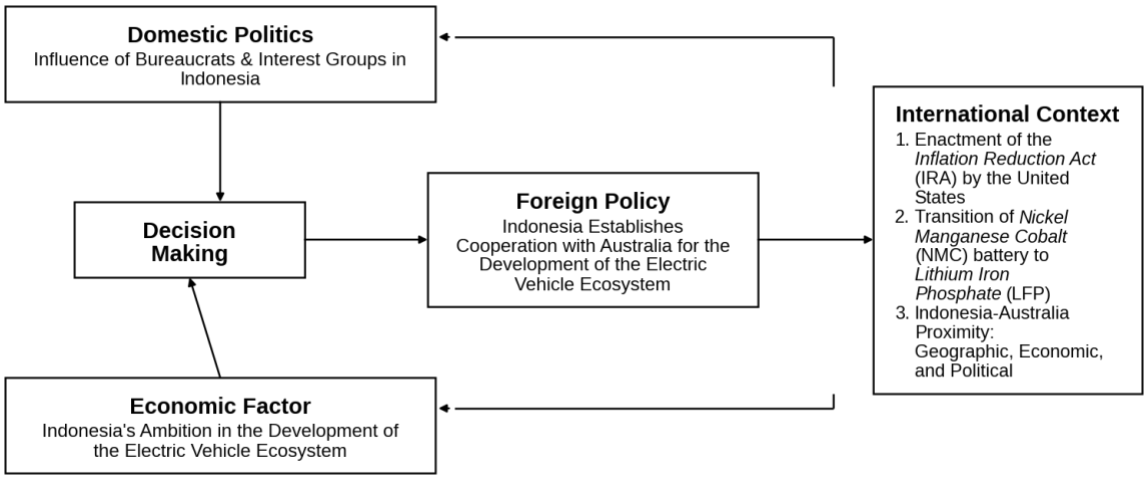


Figure 1. Analysis Model
Source: Processed by author (2026)

Drawing on the operationalization of Decision-Making Theory Coplin (2003) and Sefriani (2022) outlined above, this study determined that Indonesia's 2023 decision to cooperate with Australia on the electric vehicle ecosystem was shaped by three factors, namely: 1) domestic politics, in the form of the influence of bureaucrats and interest groups in the development of the domestic electric vehicle industry; 2) economic factors, namely Indonesia's ambition to become a major player in the global electric vehicle ecosystem; and 3) international factors, which include the proximity of the two countries as well as the development of international issues that urge Indonesia to cooperate with Australia. The findings on each of these factors are presented as follows.

Domestic Politics: Bureaucrats and Interest Groups

This research identified two domestic actors shaping Indonesia's 2023 decision to cooperate with Australia on the electric vehicle ecosystem: bureaucrats and interest groups. Bureaucrats denote actors occupying public office or executive bodies empowered to supply information and contribute useful input to decision-making. In this case, there are two ministries that are quite actively involved in negotiations for the development of the electric vehicle ecosystem with Australia, namely the Coordinating Ministry for Maritime Affairs and Investment (Coordinating Ministry for Maritime Affairs and Investment) and the Coordinating Ministry for Economic Affairs.

Setiawan (2023) and K. P. RI (2023) Long before the MoU for the development of the electric vehicle ecosystem between Indonesia and Australia was pressed, Luhut Binsar Pandjaitan, who serves as the Coordinating Minister for Maritime Affairs and Investment (Coordinating Minister for Maritime Affairs and Investment) has long negotiated with Australia regarding the lithium import plan as Indonesia's strategy in realizing national ambitions as a global electric vehicle "Battery King". In July 2023, Luhut reported that the Australian Government had responded favorably to the Indonesian Government's offer to participate in the domestic electric vehicle downstream industry. The plan is that lithium imported from Australia will start processing at a jointly owned smelter in Morowali in 2024. Echoing the Coordinating Ministry for Maritime Affairs, Airlangga Hartanto, the Coordinating Minister for Economic Affairs, likewise stressed the significance of the two countries cooperating as principal actors in the supply chain for electric vehicles and critical minerals.

K. RI (2023) Suci (2024) Beyond bureaucrats, interest groups, particularly the business community, are integral to Indonesia's decision to cooperate with Australia on the electric vehicle ecosystem. The involvement of business people can be seen from the initial discussion of Indonesia-Australia cooperation in the development of the electric vehicle ecosystem which was initiated during the B20 in 2022. Indeed, prior to the Indonesian Government's formal signing of the MoU with Australia, the Indonesian Chamber of Commerce and Industry (KADIN), a prominent national business association, had already moved to work with the Western Australian State Government on critical minerals underpinning both countries' battery and electric vehicle industries. The negotiation meeting was also attended by Indonesia-Australia Business Council (IABC) is an organization or Lobby Group which represents business and commercial interests between Indonesia and Australia. Arsjad Rasjid as Chairman of the Chamber of Commerce emphasized that the collaboration between the two countries in manufacturing batteries and electric vehicles needs to be maximized by utilizing the lithium and nickel reserves that they already have. That way, Indonesia and Australia can supply global demand for electric vehicles with jointly made products. The influence of these actors on the decision is evident in that the inter-ministerial lobbying translated directly into the lithium-import scheme and the bilateral mechanism, while KADIN and the IABC shaped the agenda by initiating the Western Australia MoU that became the template for the government-level agreement; their involvement thus actively steered the substance and timing of the decision rather than merely accompanying it.

Indonesia's Economic Ambition to Become a Major Player in the Global Electric Vehicle Supply Chain

Medina (2023) Indonesia's choice to partner with Australia on the electric vehicle ecosystem is equally bound up with its aspiration to become a leading actor in the global electric vehicle supply chain. This ambition is because Indonesia has abundant nickel reserves. Estimates place Indonesia's nickel reserves at roughly 21 million tons, amounting to about 22% of the world's total nickel reserves. So far, almost 70% of Indonesia's nickel is used in steel manufacturing. Yet as the global energy transition unfolds, demand for nickel as the primary feedstock for electric vehicle batteries keeps climbing. Indonesia is also aware of the great economic opportunities from its nickel reserves. Therefore, in recent years, Indonesia has been actively developing strategies to accelerate the development of the domestic electric vehicle ecosystem.

AEML and Ventures (2023) and Reform (2021) Indonesia's ambition to develop the electric vehicle ecosystem is contained in the National Energy General Plan (RUEN). Under the 2019 RUEN, Indonesia set targets of 2,200 electric vehicle batteries, 711 thousand hybrid vehicles, and 2.1 million electric motorcycles by 2025, with electric vehicle sales reaching up to 100% by 2040. Indonesia's ambition to develop the electric vehicle ecosystem has been widely stated in various regulations. However, insufficient alignment and coordination among government agencies poses an obstacle to executing the domestic electric vehicle ecosystem development plan.

Several studies demonstrate that building the electric vehicle ecosystem can positively affect the Indonesian economy. According to Suherman et al. (2021), Indonesian electric vehicle battery manufacturing could account for 12.7% of the global market, raise Gross Domestic Product (GDP) by as much as 21 billion US dollars, and generate employment for 46 thousand people. This estimate can be realized if there is adequate technology, capital, and policy support that supports the domestic electric vehicle ecosystem. Likewise, the results of the study by Pirmana et al. (2023) and colleagues show a much larger estimate of national economic benefits than the previous study. It is estimated that the development of the electric vehicle ecosystem in Indonesia can increase the gross added value of up to Rp 100 trillion around 1.5% of Indonesia's GDP in 2010 and create jobs for 538 thousand people.

Several existing studies indicate that the development of the electric vehicle ecosystem could generate substantial economic benefits for Indonesia. Suherman et al. (2021) and Pirmana et al. (2023) estimate that Indonesian electric vehicle battery production could contribute 12.7% of the global market, increase Gross Domestic Product by up to US$21 billion, and create approximately 46 thousand jobs, provided that adequate technological capacity, capital, and policy support are available. Pirmana et al. (2023) similarly demonstrate the potential economic

contribution of domestic electric vehicle production, although their estimates differ in scale. Such findings bolster the economic justification for Indonesia's aim to build a competitive electric vehicle ecosystem and to consolidate its standing within the global supply chain.

Bilateral Relations and International Political Dynamics as Determinants of Indonesia-Australia Cooperation in the Development of Electric Vehicle Ecosystems

The research pinpoints two international factors that shaped Indonesia's 2023 decision to collaborate with Australia on the electric vehicle ecosystem.

The Long-Standing Indonesia–Australia Strategic Partnership

Blaxland (2021) and Darmawan et al. (2025) It is undeniable that geographical proximity is one of Indonesia's considerations to collaborate with Australia in the development of the electric vehicle ecosystem. Geographically, Indonesia and Australia will always be neighbors in the middle of the Indo-Pacific maritime axis. Prof. Evvy Kartini, a researcher at the National Research and Innovation Agency (BRIN), remarked in an interview that Indonesia in fact has several partnership options among the world's largest lithium-holding nations (such as Chile, Argentina, and China) for developing the electric vehicle ecosystem. However, Australia's very close geographical location is a particular attraction for Indonesia, considering that Indonesia can effectively save lithium import costs.

Roberts and Habir (2015) and Suparji et al. (2024) Moreover, the long-established bilateral ties between the two nations in both the political and economic spheres likewise informed Indonesia's decision to collaborate with Australia on the electric vehicle ecosystem in 2023. The geographical proximity of Indonesia and Australia does not guarantee that political relations between the two countries will always run smoothly. The relationship between the two countries is very vulnerable to "crises" caused by misunderstandings and uncertainties. Despite the existing crisis, the two countries continue to be committed to strengthening bilateral relations and building a sense of trust.

Panturu et al. (2021) and Pratama and Yuliana (2024) The economic affinity between Indonesia and Australia is embodied in the Indonesia Australia-Comprehensive Economic Partnership Agreement (IA-CEPA), formally signed in 2019. IA-CEPA is a solution to challenges in economic and trade relations between the two countries. Geographical proximity does not guarantee a high volume of Indonesia-Australia trade. This happens because the two countries have relatively similar trade commodities, namely natural resources. In 2018, bilateral trade in goods and services amounted to merely 12.4 US dollars. This nominal is relatively small compared to the value of Indonesia-China trade which reached 72.6 US dollars in the same year. Australia is also not a major export destination and import partner for Indonesia. Australia's capital flows to Indonesia are also quite low when compared to the United States and China.

Panturu et al. (2021) and Pratama and Yuliana (2024) Accordingly, IA-CEPA is anticipated to deliver wide-ranging collaboration between the two nations across trade in goods, services, investment, and broader economic cooperation, including enhancing the quality of vocational education and technology transfer. Department of Foreign Affairs and Trade (DFAT) Australia claims that IA-CEPA is not a Free Trade Agreement (FTA) that focuses on tariff exemption of import duties and the reduction of non-tariff barriers. Beyond this, IA-CEPA embodies the Economic Powerhouse concept, uniting the economic strengths of Indonesia and Australia to address regional needs and global supply chains.

The Implementation of the Inflation Reduction Act (IRA) by the United States (US)

House (2023) On 16 August 2022, US President Joe Biden formally enacted the IRA, signalling Washington's firm commitment to the clean energy transition and to addressing climate change. In addition, the legislation is aimed at strengthening the US's position as "Global Leader" in innovation, manufacturing, and clean energy technology. The U.S. Department of Energy projects that enacting the IRA could enable the country to cut greenhouse gas emissions by over 1,000 million metric tons by 2030.

Agency (2023a) In broad terms, the IRA governs grants, loans, taxes, and additional incentives designed to speed the uptake of clean energy, vehicles, and environmentally friendly infrastructure. Not only that, but the IRA is also aimed at encouraging investments that support

the development of the clean technology industry at the domestic level, in the hope of creating jobs and improving people's ability to adapt to climate change. In this case, the US will provide subsidies of 370 billion US dollars for clean energy-based technologies. Through the IRA, the US provides incentives for both consumers and business people who support the adoption of electric vehicles and expand electric vehicle manufacturing. In this case, the US provides green vehicle credits of up to 7,500 US dollars. However, the credit only applies to electric vehicles that meet certain standards related to essential minerals and battery components. The conditions require that electric vehicle batteries contain essential minerals mined and processed within the US, in nations holding a free trade agreement with the US (its trusted trade partners), or reprocessed in North America.

Essential minerals that qualify to receive the incentive include aluminum, cobalt, nickel, lithium, and others. However, the credit will not apply to electric vehicles that load minerals from foreign entities (Foreign Entity). In the context of an IRA, a foreign entity refers to a subject owned, controlled, under the jurisdiction, or mandate of a country that is blacklisted by the US. There are four countries that have been exempted by the US: China, North Korea, Russia, and Iran. Therefore, all vehicles containing batteries or essential minerals from the four countries above, will not receive credits or other incentives from the US (Organization, 2024; Feng & Ji, 2026).

Medina (2023), Medina (2024) and Tritto (2023) Over the long run, enacting the IRA could impede Indonesia's efforts to emerge as a pivotal participant in the global electric vehicle ecosystem. With abundant nickel reserves, Indonesia targets to enter the top three global electric vehicle battery manufacturers by 2027. The implementation of the IRA is a challenge for Indonesia in realizing its vision as a global battery producer, given China's dominance in the domestic nickel refining industry. Based on a report by the Indonesian Nickel Miners Association, almost 99% of nickel smelters in Indonesia are supported by investors from China. Indeed, Indonesia and China (through the Bintang Valapan Group and Tsingshan) have jointly developed Southeast Asia's largest nickel-processing industrial estate, the Indonesia Morowali Industrial Park (IMIP), situated in Central Sulawesi. The 2,000-hectare industrial estate also includes various other supporting facilities such as a special housing complex for expatriates, hotels for executive guests, airports, ports, and special telecommunications networks that benefit China. Unmitigatedly, the development of the industrial estate received a budget injection of up to 1.22 billion US dollars from China Development Bank.

Interesse (2023) In response to the IRA, Indonesia itself has lobbied directly with the US to agree on a bilateral trade agreement in the minerals sector, but the lobby has not received a significant response. Partnering with Australia on the electric vehicle ecosystem is regarded as an alternative means of addressing the difficulties posed by the IRA's enactment. Through cooperation with Australia, Indonesia seeks to diversify in the domestic electric vehicle industry, open up wider foreign investor opportunities, reduce dependence on China, and improve Indonesia's ESG performance in the management of critical minerals for electric vehicles.

Australia (2023) and Britt and Czarnota (2024) In addition, collaborating with Australia offers advantages for Indonesia, particularly in responding to the IRA, given that Australia ranks among the US's trusted trading partners under the Australia-United States Free Trade Agreement (AUSFTA), in force since 2005. Even in May 2023, Australia and the US agreed together "Australia-United States Climate, Critical Minerals and Clean Energy Transformation Compact" contains a framework to strengthen the clean energy transition at both the national and international levels, expand investment, and diversify in the supply chain of critical minerals in the Indo-Pacific. Consequently, bilateral Indonesia-Australia cooperation on the electric vehicle ecosystem is expected to assist Indonesia in securing clean energy incentives and gaining access to the US electric vehicle market.

The Shift from NMC to LFP Batteries

Aichelin (2024) Batteries are an important component in electric vehicles. At present, electric vehicles commonly employ two battery types: those based chiefly on nickel (NMC) and those based on lithium (LFP). Both batteries have differences in performance. In terms of safety and thermal stability, LFP has a higher level of heat tolerance than NMC which is susceptible to overheating. In terms of battery life cycle, LFP offers a much longer lifespan than NMC. Although it does not last as long as LFP, NMC is still feasible for use in electric vehicles. On the contrary,

NMC has a greater energy density than LFP, so it is more Compact or light which can affect the weight of the electric vehicle. In addition, LFP is considered more environmentally friendly than NMC by considering the extraction of critical minerals which are the main ingredients of the two batteries. In various existing cases, the process of extracting critical minerals for the manufacture of NMC batteries often results in quite massive environmental damage, such as Cobalt mining in Congo. LFP also has a cheaper price than NMC.

Agency (2023a) agency Historically, NMC has dominated electric vehicle batteries; in recent years, however, a trend of shifting from NMC to LFP has emerged. This shift is caused by several factors such as the increase in nickel prices. In fact, in 2022, the price of nickel shot up twice the average nickel price for the 2015-2020 period. With the high price of nickel, it triggers new incentives to reduce dependence on nickel and LFP which is mainly made from lithium and phosphorus as an alternative solution to existing challenges. In addition, the switch to LFP batteries is also influenced by changing preferences of global electric vehicle manufacturers, especially in China. Almost 95% Light Duty Vehicle (LDV) that use LFP comes from Chinese manufacturing. Not only that, Tesla an electric vehicle company that is quite popular at the global level has begun to increase the use of LFP in its products, from only 20% in 2021 to 30% in 2022. The low energy density level of LFP does not affect the interest in using lithium batteries. As can be seen in the image below, although nickel batteries still dominate, there has been a decline since 2020. On the contrary, the use of LFP batteries continues to increase.

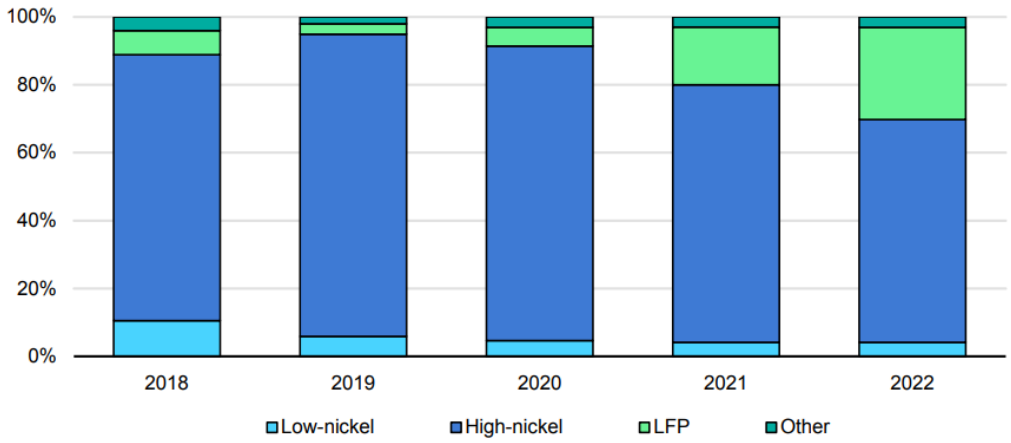


Figure 2. Electric Vehicle Battery Trends for the 2018-2022 Period
Source: (Agency, 2023b)

Authority (2022) This research regards Indonesia's collaboration with Australia on the electric vehicle ecosystem as a strategy for countering the migration from nickel-based batteries toward lithium. Australia holds the world's largest lithium reserves. The increase in the use of LFP will obviously affect the demand for lithium supply. Therefore, Australia's lithium production has the potential to increase by more than 50% in the coming periods. Likewise, revenues from lithium exports are estimated to double, from 4.1 billion Australian dollars in 2021-2022, to 9.4 billion Australian dollars in the 2023-2024 period. By cooperating with Australia, Indonesia anticipates preserving its position as a leading actor in the global electric vehicle ecosystem notwithstanding the NMC-to-LFP transition.

Agency (2023a) and Zhang (2023) The cooperation between the two countries is considered to bring the same benefits (Mutual benefit) for Australia. With large lithium reserves, Australia has ambitions to accelerate lithium production for domestic exports and downstream industries. Australia has also drafted a proposal Australian Made Battery Plan which is aimed at building battery manufacturing in Queensland with a budget of 100 million Australian dollars. Like the Indonesia, the Australian lithium mining sector is largely controlled by companies affiliated with China. Hence, partnering with Indonesia constitutes one of Australia's approaches to diversifying its supply chain and channelling investment into the critical-minerals sector. In this case, Australia seeks to prevent various companies affiliated with China from acquiring and controlling domestic mining companies.

Discussion

Drawing on the findings above, it becomes apparent that domestic interests and international political dynamics converge to prompt Indonesia's 2023 cooperation with Australia on the electric vehicle ecosystem. From the domestic political side, there is a strong influence of bureaucrats and interest groups in Indonesia in cooperation in the development of the electric vehicle ecosystem between Indonesia and Australia. This is borne out by the protracted lobbying and negotiation undertaken by representatives of the Indonesian Government, including the Coordinating Ministry for Maritime Affairs and the Coordinating Ministry for Economic Affairs. In addition to the bureaucrats involved, there are business people who take part in the negotiation of cooperation between Indonesia and Australia in the development of the electric vehicle ecosystem, namely the Chamber of Commerce and the IABC. Of the four types of domestic influence identified by Coplin (2003) and Sefriani (2022), bureaucrats, partisans, interest groups, and the masses of this study only found the influence of bureaucrats and interest groups, with no indication of the involvement of political parties or pressure of public opinion. This suggests that the decision to work with Australia on the development of the electric vehicle ecosystem is more formulated through technocratic channels and business lobbying, rather than political mechanisms involving broad public participation.

Alongside domestic political influence, this research determined that Indonesia's cooperation with Australia on the electric vehicle ecosystem is likewise propelled by its economic aspiration to become a leading actor in the global electric vehicle supply chain. With abundant nickel stocks, Indonesia sees considerable economic opportunities for benefits. The Indonesian government will not miss this moment to create a competitive electric vehicle ecosystem at the global level. With the development of the global electric vehicle ecosystem, it is hoped that it can open up investment opportunities and strategic partnerships. Jokowi's statement about lithium as the only critical mineral that Indonesia does not yet have shows that Australia's election is based on rational economic calculations.

Indonesia’s choice to partner with Australia in building the electric vehicle ecosystem was shaped not merely by domestic political considerations but also by international political dynamics. The cooperation can be interpreted as a continuation and expansion of the bilateral economic framework established through IA-CEPA. In this context, collaboration in the electric vehicle ecosystem reflects the Economic Powerhouse concept promoted under IA-CEPA, in which the complementary critical-mineral resources of Indonesia and Australia can support joint production and manufacturing activities. Such cooperation provides an institutional basis for both countries to strengthen their participation in regional and global electric vehicle supply chains.

Center (2020) and Anfasa (2023) Within the IA-CEPA framework, collaborating with Australia on the electric vehicle ecosystem can yield greater benefits for Indonesia. This is because IA-CEPA provides convenience for Indonesian automotive products, especially electric vehicles and Hybrid to be able to enter the Australian market. Regardless of the origin of the raw material, electric vehicles or Hybrid assembled in Indonesia is entitled to a preferential tariff of up to 0%. This is not shared by Malaysia and Thailand, as Indonesia's competitors in the production of electric vehicles in Southeast Asia. Prof. Evvy Kartini's statement about the options of other countries with large lithium reserves such as Chile, Argentina, and China shows that Australia's choice is not solely about resources. The IA-CEPA framework in place since 2019 appears to be a more decisive factor than geographic proximity on its own, consistent with Coplin (2003) and Sefriani (2022) argument that established political relations also steer the orientation of a country's foreign policy.

On the other hand, China’s strong involvement in Indonesia’s nickel-smelting industry has been associated with labor, environmental, social, and rent-seeking concerns (Tritto, 2023). Such circumstances may pose further challenges for Indonesia in obtaining clean-energy incentives and entering markets shaped by the United States’ Inflation Reduction Act. The IRA establishes requirements concerning the sourcing and processing of critical minerals, while Chinese entities face restrictions under relevant provisions. Consequently, Indonesia’s dependence on Chinese investment in nickel processing, combined with environmental and social concerns surrounding parts of the domestic nickel industry, may complicate Indonesia’s efforts to position its electric vehicle products within supply chains seeking to comply with these requirements.

Therefore, with the implementation of the IRA by the US, it is urged for Indonesia to diversify trading partners. Indonesia's move to partner with Australia on the electric vehicle

ecosystem is rational, given Australia's standing as one of the US's strategic partners. Coupled with the trend of switching from Nickel (NMC) to Lithium (LFP) batteries, Indonesia is looking for new alternatives to survive in the global electric vehicle supply chain. Synthesizing these determinants, Indonesia's choice of Australia emerges from the interplay between its ambition to capture value from nickel, its exposure to the NMC-to-LFP shift that raises lithium demand, the IA-CEPA framework that lowers partnership costs, and the IRA that pushes diversification away from China factors that reinforce one another rather than operate in isolation (Kusuma et al., 2025).

Overall, Indonesia's decision to cooperate with Australia cannot be attributed to any single factor. Domestic politics, economic ambitions, and the dynamics of international issues intersect with Indonesia's decision. These three factors overlap, in line with Coplin (2003) and Sefriani (2022) that foreign policy is born from the interaction of various factors that work simultaneously.

CONCLUSION

Indonesia's 2023 decision to cooperate with Australia on the electric vehicle ecosystem stemmed not from one cause but from the interplay of three principal factors. First, domestic political influence the active role of bureaucrats such as the Coordinating Ministry for Maritime Affairs and Investment and the Coordinating Ministry for Economic Affairs, together with interest groups such as KADIN and the Indonesia–Australia Business Council (IABC) shaped the negotiations through technocratic and business channels. Second, economic ambition: with abundant nickel reserves, Indonesia sought to expand its role in the global electric vehicle supply chain and to secure the lithium it lacks, which Australia can supply.

Third, the international dimension enduring bilateral ties formalized through the Indonesia–Australia Comprehensive Economic Partnership Agreement (IA-CEPA), the United States' Inflation Reduction Act (IRA) that spurs diversification away from China's dominance in Indonesian nickel, and the worldwide move from NMC to LFP batteries that elevates the strategic value of Australian lithium strengthened the decision. These three determinants overlapped and operated simultaneously, so that cooperation with Australia represents a direct response to both domestic interests and international dynamics and offers mutual benefits for the two countries.

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AUTHOR CONTRIBUTION STATEMENT

Tanti Belinda Candrawati was solely responsible for the conceptualization and design of the study, identification and collection of relevant secondary data, development of the theoretical framework, data organization and analysis, interpretation of the findings, and preparation of the manuscript. The author also conducted the literature review, applied William D. Coplin's Decision-Making Theory in interpreting the research findings, prepared the original draft, revised the manuscript for intellectual and academic content, and approved the final version for publication. The author accepts full responsibility for the accuracy, integrity, and overall content of the manuscript.

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