

# PT CRIF STUDY: IMPACT OF ELECTRIC CARS ON INDONESIAN AUTOMOTIVE INDUSTRY



Currently, the issue of air pollution in Indonesia mostly comes from the population of vehicles on the streets. These problems are very difficult to overcome and will not improve due to the increasing number of motorized vehicle population in Indonesia.

Since 2017, the level of air pollution in Jakarta caused by traffic jams increased by 65%. Motor vehicles that cause air pollution are conventional motor vehicles, namely fossil fuels that emit carbon dioxide as the rest of the combustion.



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Therefore, many countries in the world have started by limiting the population growth of conventional cars and replacing them with electric cars. In fact, many European countries have made a road map for electric cars that will reduce conventional cars significantly by 2025. Indonesia with Presidential Regulation no. 55 of 2019 also wishes to accelerate the battery-based electric motor vehicle program which aims to increase the population of electric cars and gradually replace conventional cars so that air pollution in big cities is reduced.

The government is aware of the need for a solution so that this matter can be resolved immediately before the emergence of more serious environmental problems. However, it is not possible to stop automotive production as it is one of the largest GDP contributor sectors in Indonesia. Therefore, the emergence of electric car innovation is a good solution for the environment and the automotive industry itself. An electric car is a car that is driven by an electrically powered motor that is stored in a battery or other energy storage area. Electric cars were very popular in the late 19th and early 20th centuries, but then their popularity waned due to advances in internal combustion engine technology and lower prices for gasoline-fueled vehicles. However, along with the continued increase in world fuel prices, electric cars are again being used as a quite profitable option for producers and consumers.

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## SOME OF ELECTRIC CARS ON THE INDONESIAN MARKET IN 2020

As a step to reduce air pollution, the government has begun to promote and accept several electric car products to be traded in Indonesia, here are electric cars that have been circulating in 2020:

1. Nissan Kicks e-POWER, is the first environmentally friendly hybrid car owned by PT Nissan Motor Indonesia.
2. Toyota Corolla Cross Hybrid, is a car owned by PT Toyota Astra Motor (TAM) which was launched on August 6, 2020 and consumers can only receive the unit in December 2020.
3. Hyundai Ioniq Electric and Hyundai Kona Electric, are cars owned by PT Hyundai Motors Indonesia (HMID) which was launched on June 12, 2020. South Korean car manufacturer, Hyundai, participates in enlivening the eco-friendly vehicle market.
4. Lexus UX 300e, is the first electric car owned by PT Toyota Astra Motor (TAM). Previously this car had debuted in Europe and China in 2019 ago.
5. Toyota Prius PHEV, prior to the Corolla Cross Hybrid, PT Toyota Astra Motor (TAM) had launched the Toyota Prius PHEV in March, 2020. The launch was carried out behind closed doors due to the COVID-19 pandemic. Unfortunately, this car has not been sold to the general public.

In addition to the electric cars above, there are several other electric cars on the market.

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## SOME OF THE ELECTRIC CARS THAT ENTER THE INDONESIAN MARKET IN 2021

The increasing number of electric cars in Indonesia and ongoing promotions by the government have led to a higher market potential for electric cars. Therefore, motor vehicle entrepreneurs quickly take this opportunity and enter their products in the Indonesian market. The following is the electric cars that will enter the Indonesian market in 2021:

1. Weltmeister, is a brand from China which is under WM Motor Group Co. Ltd., which is a group of companies that focus on electric vehicles, will enter the Indonesian market in the near future.
2. Audi RS E-tron GT, is an electric car owned by Audy which began production at the Neckarsulm factory, Germany, in December 2020 and was only able to be launched on February 9, 2021 ago due to the constraints of the COVID-19 pandemic. The car is a sibling to the Porsche Taycan electric sedan that debuted in 2019, and Audi will ride on the same J1 platform as Porsche.
3. Mazda MX-30, is a Mazda electric vehicle that will be released and produced in Q4/2021 and officially traded in Indonesia under the banner of PT Eurokars Motor Indonesia.

Several other motor vehicle manufacturers have plans to release their electric cars in 2021 and 2022. However, there is no detailed information regarding this yet.

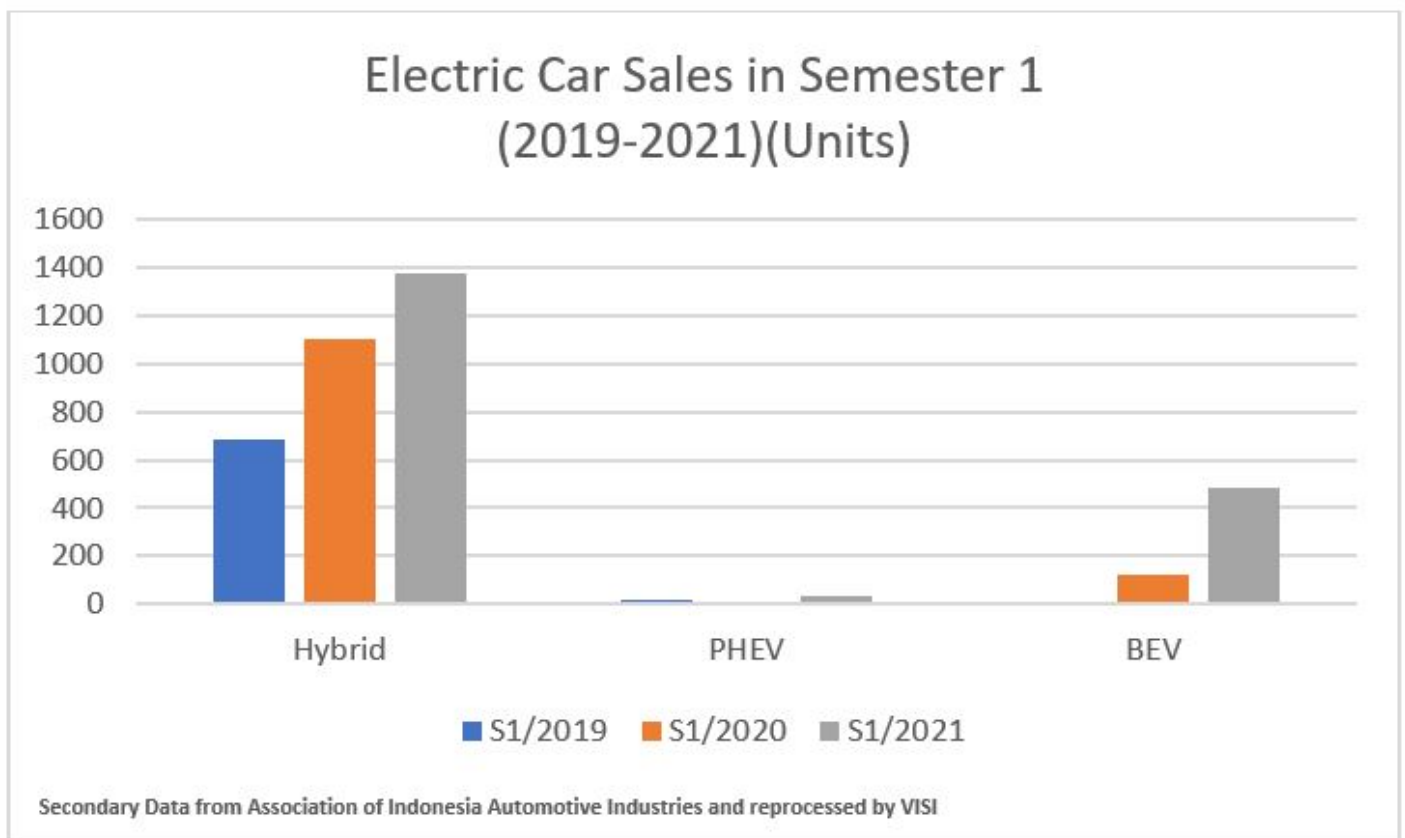
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## COMPARISON OF ELECTRIC CAR SALES TO THE CONVENTIONAL CAR MARKET

- Electric Cars

Based on data from the Association of Indonesia Automotive Industries, the realization of total electric car sales in Indonesia during the first half of 2021 reached 1,900 units. This number consists of hybrid models, plug-in hybrid electric vehicles (PHEV), and battery electric cars (BEV). Of the 1,900 units, 1,378 hybrid types were sold, 34 PHEVs and 488 BEVs were sold.

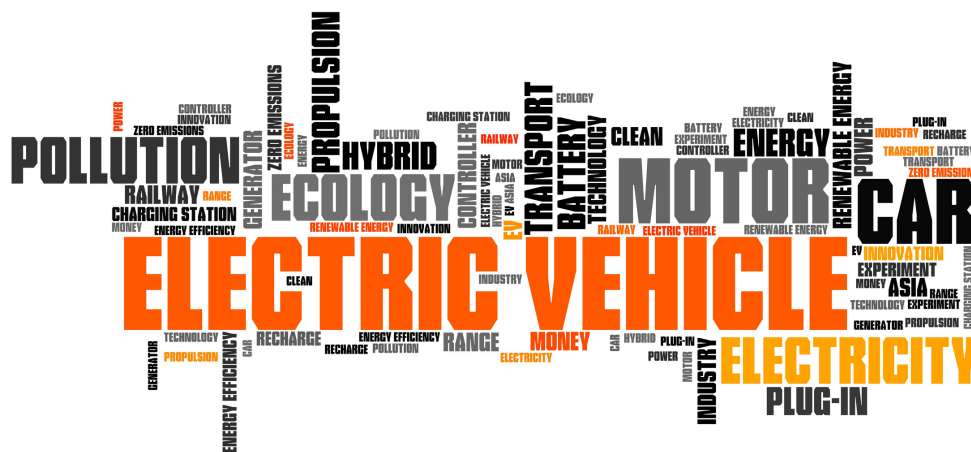


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There was an increase in sales of 53.97% compared to the same period in 2020 which only reached 1,234 units, of which 1,108 hybrid types were sold, 6 PHEV units and 120 BEV units. While in 2019, 705 units were sold, of which the hybrid type sold 685 units, PHEV 20 units, and BEV zero sales.

This increase is due to the trend of electric cars that are increasingly formed in Indonesia and also the awareness of vehicle users in targeting environmentally friendly standard vehicles. People's interest in using electric cars is quite high, but because the price is relatively above conventional cars (50% higher) people prefer conventional cars. However, after the enactment of Presidential Regulation No. 55 of 2019, the price of electric cars will be lower because with the Presidential Regulation, buyers will enjoy a lot of tax incentives, including: sales tax on luxury goods, reduced vehicle taxes and transfer fees, reduced import duties on electric cars. This tax incentive causes the price of electric cars not to differ much from the prices of conventional cars for the same class.



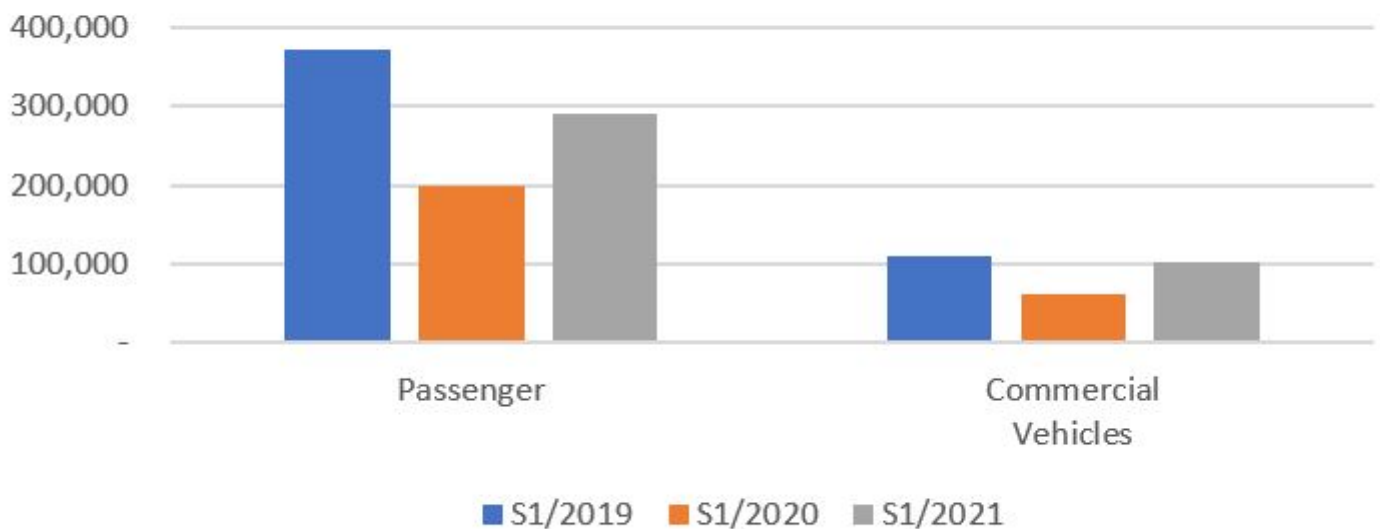
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- Conventional Cars

Data taken from the Association of Indonesia Automotive Industries, there was a decrease in sales in the first half of 2020 by 46% of sales in the 2019 period due to the decrease in people's purchasing power due to the COVID-19 pandemic.

### Conventional Car Sales in Semester 1 (2019-2021)(Units)



Secondary Data from Association of Indonesia Automotive Industries and reprocessed by VISI

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In the first half of 2020, sales of conventional cars reached 260,932 units, with passenger types as many as 199,139 units and commercial vehicles as many as 61,793 units. In line with the improving economic conditions in the midst of the pandemic, there was another 51% increase in the first half of 2021 with total sales of 393,469 units, of which 291,190 passenger types were sold and 102,279 commercial vehicles were sold.

Based on the sales data of the two types of cars, it can be said that conventional cars still dominate the market compared to electric cars. This is different from the condition of the electric car market in Indonesia, which is still in its early stages. With a complete exemption from taxes. No wonder the increase in sales of electric cars is so significant and will continue to experience a surge in the next few years and has the potential to seize the conventional car market as well as a change in the era of the vehicle into the era of electric vehicles.