A BRIEF HISTORY OF ELECTRIC VEHICLES

From Europe to North America to Asia, the history of electric mobility is a demonstration of the world's persistent ingenuity and adaptation in transportation. The future of electric mobility — still to be written — will stand, in part, on the achievements and lessons learned from these earlier periods.

1801–1850

THE BEGINNING

The earliest electric vehicles are invented in Scotland and the United States.

1832–39
Robert Anderson, of Scotland, builds the first prototype electric-powered carriage.

1834
Thomas Davenport, of the United States, invents and installs the first direct current electrical motor in a car that operates on a circular electrified track.

1851–1900

THE FIRST AGE

Electric vehicles enter the marketplace and find broad appeal.

1888
German engineer Andreas Flocken builds the first four-wheeled electric car.

1897
The first commercial electric vehicles enter the New York City taxi fleet. The carmaker, Pope Manufacturing Co., becomes the first large-scale EV manufacturer in the United States.

1899
The "La Jamais Contente," built in France, becomes the first electric vehicle to travel over 100 km per hour.

1900
Electricity-powered cars become the top-selling road vehicle in the United States, capturing 28% of the market.

1901–1950

THE BOOM & BUST

EVs reach historical production peaks only to be displaced by petrol-powered cars.

1908
The petrol-powered Ford Model T is introduced to the market.

1909
William Taft becomes the first U.S. President to purchase an automobile, a Baker Electric.

1912
The electric starter, invented by Charles Kettering, obviates the need for the hand-crank, making it easier for more people to drive petrol-powered cars.

1912
GLOBAL EV STOCK REACHES HISTORICAL PEAK OF 30,000

1930s
By 1935, EVs become all-but-extinct due to the predominance of internal combustion engine (ICE) vehicles and availability of cheap petrol.

1947
Oil rationing in Japan leads carmaker Tama to release a 4.5hp electric car with a 40V lead acid battery.

1951–2000

THE SECOND AGE

High oil prices and pollution cause renewed interest in electric vehicles.

1966
The U.S. Congress introduces legislation recommending electric vehicles as a means of reducing air pollution.

1973
The OPEC oil embargo causes high oil prices, long lines at petrol filling stations, and renewed interested in EVs.

1976
France's government launches the "PREDIT" programme accelerating EV RD&D.

1996
To comply with California's Zero Emission Vehicle (ZEV) requirements of 1990, General Motors produces and begins leasing the EV1 electric car.

1997
In Japan, Toyota begins sales of the Prius, the world's first commercial hybrid car. 18,000 are sold in the first production year.

2001–

THE THIRD AGE

Public and private sectors recommit to vehicle electrification.

2008
Oil prices reach more than USD 145 per barrel.

2010
The BEV Nissan LEAF is launched.

2011
The world's largest electric car sharing service, Autolib, is launched in Paris with a targeted stock of 3,000 EVs.

2011
GLOBAL EV STOCK REACHES NEW HISTORICAL PEAK OF 50,000

2011
French government fleet consortium commits to purchase 50,000 EVs over four years.

2011
Nissan LEAF wins European Car of the Year award.

2012
The PHEV Chevrolet Volt outsells half the car models on the U.S. market.

2012
GLOBAL EV STOCK EXCEEDS 180,000

Sources: Curtis D. Anderson and Judy Anderson, *Electric and Hybrid Cars: A History*, McFarland and Company, 2012 ; burnanenergyjournal.com; pbs.org/now/shows/223/electric-car-timeline.

CLEAN ENERGY MINISTERIAL

Electric Vehicles Initiative

iea International Energy Agency