World Hybrid & Electric Vehicles

Industry Study with Forecasts for 2018 & 2023

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Market gains will be led by micro and mild hybrids that feature start-stop systems and regenerative brakes, which can save fuel and reduce vehicle emissions at a relatively low additional cost.

World demand to more than double through 2018

World hybrid and electric vehicle (H/EV) sales will more than double through 2018, reaching 25.6 million units and accounting for nearly one-quarter of all new motor vehicles sold. Market advances will be led by micro and mild hybrids. Micro hybrids are conventional vehicles equipped with start-stop systems. Mild hybrids feature regenerative braking in addition to start-stop systems, and some of these also come equipped with a small electric motor that helps start the vehicle but cannot propel it without the aid of an internal combustion engine. These systems deliver considerable fuel savings relative to their low additional cost and can reduce overall vehicle emissions. In 2018, the micro and mild hybrid demand total will be 20.1 million units, full and plug-in hybrid sales will be 4.1 million units, and electric vehicle (EV) demand will be nearly one million units. EVs will post the most rapid market gains of any product type, albeit from a very small current sales base.

Western Europe to remain largest H/EV vehicle market

Western Europe was the first region of the world to adopt micro/mild hybrid vehicles on a mass scale. As a result, Western Europe is and will remain by far the largest regional market for micro and mild hybrids and for H/EVs overall, representing 44 percent of total demand in 2018. However, micro/mild hybrid sales are projected to grow faster in other parts of the world, particularly in North America and the Asia/Pacific region.

Increases in overall H/EV demand will be stimulated by high global fuel prices and supported by reductions in component (especially battery) prices as output levels climb and greater economies of scale are achieved. This will help make H/EVs more affordable to the average vehicle purchaser, a particularly important factor in industrializing countries where privately owned vehicles remain a relative luxury. Rising concerns about air pollution worldwide will also lead to the enactment of additional regulations and subsidy programs supporting sales and use of H/EVs, as these vehicles can significantly reduce tailpipe emissions.

The Asia/Pacific region, excluding Japan, will represent the fastest growing market for H/EVs through 2018. Within the region, China will represent the most substantive sales increases in both unit and percentage terms, fueled by an increasing number of micro/mild hybrids offered for sale in the country and by further narrowing of the price premium over conventional vehicles. In addition, European, Japanese, and US automakers will continue to open and expand existing plants in China and partner with domestic firms to take advantage of government subsidies for vehicles purchased from locally based suppliers. The US will remain the world’s largest EV market, accounting for over one-fifth of the global demand total in 2018.
Asia/Pacific

Japan: Hybrid & Electric Vehicle Supply & Demand

H/EV demand in Japan totaled 1.6 million units in 2013, making the country the biggest national market in the world for these vehicles, accounting for 16 percent of the global total. Because hybrid vehicles have been a noticeable part of the nation’s motor vehicle market for over 15 years, Japan had the world’s largest fleet of H/EVs, totaling 5.4 million units and representing 19 percent of the world park in 2013. Sales expanded more than sixfold between 2008 and 2013. High fuel prices spurred market gains for full hybrids, sales of which increased by 773,000 units during that span, causing Japan to surpass the US to become the largest national market for this type of H/EV. Demand for micro/mild hybrids also rose, as many Japanese manufacturers began to offer these technologies on several models as a fuel saving measure. One example of this trend is the Suzuki SPACIA, launched in March 2013 and offers start-stop and regenerative braking as standard equipment.

With 2013 industry output of 2.2 million units, Japan was the second largest producer of H/EVs in the world after Germany, representing 22 percent of the global total in that year. Unlike its West European counterpart, Japanese H/EV output consists primarily of full hybrids and PHEVs, accounting for over three-quarters of these vehicles’ world output in 2013. Overall H/EV production nearly quadrupled during the 2008-2013 period due to rapidly expanding sales of fuel saving full hybrids, particularly in the domestic market and in the US, the second largest market for these products in the world. However, micro/mild hybrid shipments expanded more rapidly in percentage terms due to fast growing sales in Western Europe. Japan had a 2013 trade surplus in H/EVs equivalent to 28 percent of industry output.

Production of H/EVs by plants in Japan is forecast to double to 4.3 million units in 2018. This will represent a deceleration from the pace of growth between 2008 and 2013. In this forecast period, Japan is expected to maintain its position as the largest national market for full hybrids, representing nearly half of these vehicles’ world output in 2018. Although hybrid sales are forecast to slow in Europe due to the high growth rates achieved during 2008-2013, Japan is expected to continue its robust growth pattern, driven by strong demand for fuel saving full hybrids.
Chery Automobile Company Limited
No. 8, Changchun Road
Wuhu Economic and Technological Development Zone
Wuhu 241006
China
86-40-0883-8888
http://www.chery.cn

Sales: $2.1 billion (estimated)
Employment: 25,000 (estimated)
Key Products: hybrid vehicles and electric vehicles

Chery Automobile manufactures and markets automobiles. The Company is state owned.

The Company participates in the world hybrid/electric vehicle industry through the production of hybrid vehicles and electric vehicles (EVs). Hybrids comprise the A5BSG, A5ISG, and A3ISG models. The A5BSG micro hybrid is equipped with a 1.6-liter gasoline engine and a belt-driven starter generator, and features a start-stop system that turns off the engine when the vehicle is idle. The A5ISG and A3ISG mild hybrids utilize nickel metal hydride battery packs and 16-kilowatt electric motors. In the second half of 2014, Chery Automobile plans to introduce the E5 hybrid to the Chinese market. This vehicle is based on the Company’s E5 series sedan.

Chery Automobile’s EVs consist of the QQEV and M1EV models. The QQEV features automatic gear shifting and low noise, while the M1EV is-powered by a lithium-ion battery pack and has a top speed of more than 120 kilometers per hour. In 2013, the Company sold 562,000 motor vehicles, of which 17,800 were hybrid and electric vehicles.
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Other Studies

Electric Motors

US electric motor demand will rise 5.4 percent per year through 2018 to $16.2 billion. Growth in the dominant AC motors segment will outpace DC types. The motor vehicle market will grow the fastest and remain the largest category, followed by the heating/cooling and machinery markets. IHP electric motors will outpace FHP types in both value and volume terms. This study analyzes the $12.5 billion US electric motor industry, with forecasts for 2018 and 2023 by type, power rating, and market. The study also evaluates company market share and profiles industry players.

World Buses

Global demand for buses is projected to advance 5.3 percent annually to 664,000 units in 2018. The Asia/Pacific region will remain the dominant market, while the Africa/Mideast region will grow the fastest. Motor coaches will outpace other types based on increasing private sector use, and on their greater comfort, safety and onboard services. This study analyzes the 512,000 unit global bus market, with forecasts for 2018 and 2023 by product, fuel type, world region, and for 18 countries. The study also evaluates company market share and profiles industry participants.

Lightweight Automotive Materials in North America

North American demand for lightweight automotive materials will rise 5.2 percent annually to 23.3 billion pounds in 2018. Gains will be driven mainly by increasingly strict automobile fuel economy mandates. The dominant metals segment (e.g., aluminum, high-strength steel) will outpace polymers and composites. This study analyzes the 17.3 billion pound North American lightweight automotive materials industry, with forecasts for 2018 and 2023 by type, material and application. The study also evaluates company market share and profiles industry competitors.

World Fuel Cells

Global demand for commercial fuel cells will almost triple to $4 billion in 2017 and then triple again by 2022 to $12 billion. Motor vehicle, portable electronics, and industrial stationary/motive power applications will grow the fastest. Japan and the US will remain by far the largest markets, while China and South Korea will grow the fastest. This study analyzes the $1.5 billion world fuel cell industry, with forecasts for 2017 and 2022 by product, chemistry, application, world region, and for 16 countries. The study also evaluates company market share and profiles industry players.

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