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# World Batteries

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Industry Study with Forecasts for 2019 & 2024

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*Gains will be driven by rapidly expanding production of high-cost batteries used to power hybrid and electric vehicles (H/EVs), and by primary and secondary replacement batteries used in high-drain electronics.*

## World demand to rise 7.8% annually through 2019

Global demand for primary and secondary batteries is forecast to rise 7.8 percent per year to \$120 billion in 2019. Rapidly expanding production of hybrid and electric vehicles (H/EVs), particularly in Western Europe and the US, will fuel purchases of high-cost batteries used to power such vehicles. In developing regions, improving levels of disposable income and consumer spending will support sales of high-drain electronics (such as mobile phones and personal computers), boosting demand for both primary and secondary replacement batteries. As incomes rise, a shift to better performing primary batteries (including alkaline and lithium types) is also expected to drive market advances in the developing world. In the industrial battery market, expanding investment in energy storage systems to provide backup power and/or frequency regulation will spur sales.

## China to remain largest national market

China will remain the largest national market for batteries as rising output from the country's massive manufacturing sector -- particularly in the motor vehicle and electrical and electronic product industries -- supports double-digit yearly advances in the domestic battery market. In addition, increased investment to expand electrical generation capacity is projected to boost battery

## World Battery Demand, 2019 (\$120 billion)



sales, fueling purchases of battery-based backup power and energy storage systems. India is also forecast to post double-digit annual gains in battery sales through 2019, driven by rising personal incomes that will increase the affordability of battery-consuming products such as high-drain consumer electronics. Strong performance in India's automotive segment will also boost local battery demand, driven by expanding motor vehicle production and an increasing number of vehicles in use in the country.

## North America, Western Europe to see strong growth

North America and Western Europe are projected to see solid increases in

battery demand, driven largely by expansion of their automotive markets as production and sales of H/EVs soar (partly a consequence of falling lithium-ion battery prices and increased affordability of H/EVs). Countries in these regions will also see growing demand for battery-based systems that store energy and regulate power frequencies, particularly as these regions increasingly integrate wind and solar facilities into national electrical grids. In the US especially, suppliers of advanced industrial batteries are benefiting from increased installation of microgrids and off-grid renewable energy systems.

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