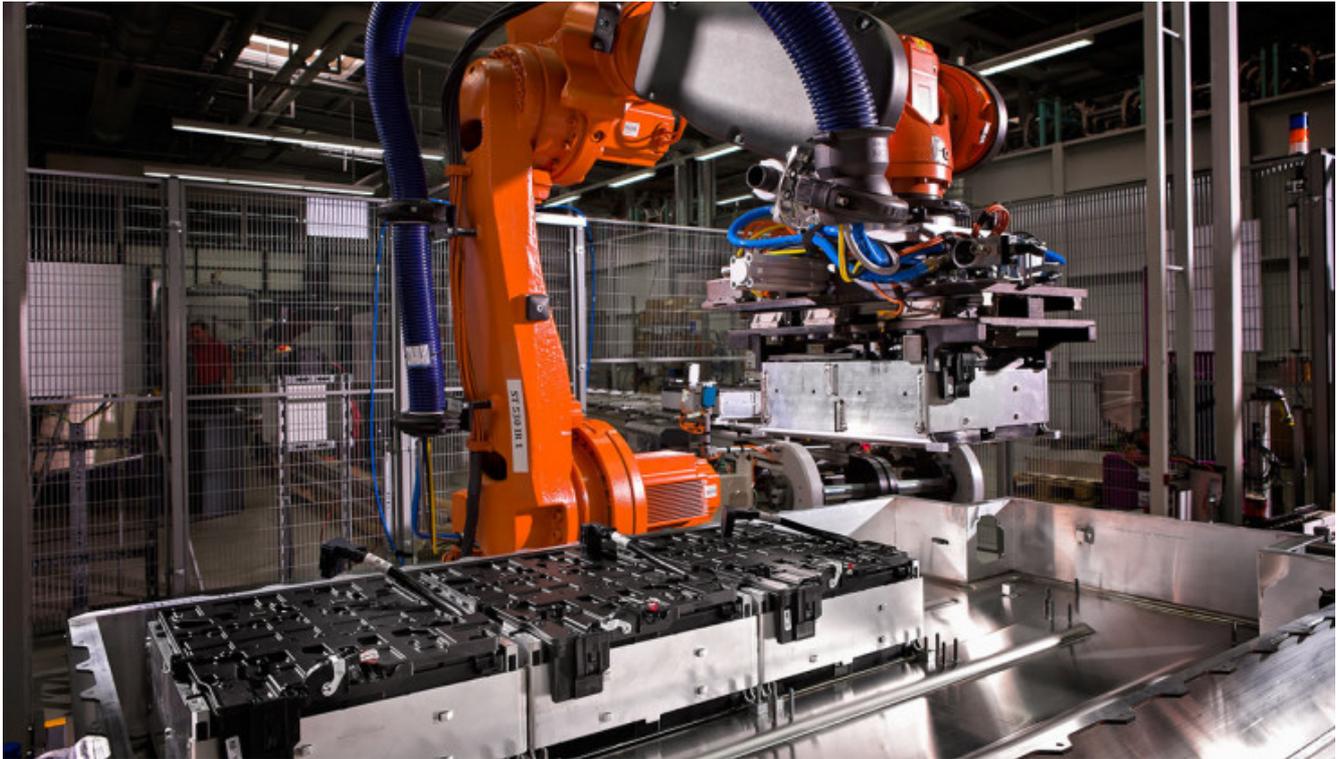


Electric cars to drive \$26 billion demand for lithium-ion batteries

April 7, 2014 – Richard Lane | In: Green Car Industry



Demand for lithium-ion batteries will surge in the coming decade with the market growing to a value of \$26 billion annually by 2023, according to *Navigant Research*.

The consistent and reliable performance of the lithium-ion batteries increasingly used in battery-electric and plug-in hybrid cars will see annual revenue increase roughly four-fold, from less than \$6 billion in 2014.

“The shift to lithium represents a major endorsement of the ability of this chemistry to perform consistently in an automotive environment,” said senior research analyst, David Alexander.

“Most of the major automakers have introduced battery electric vehicle and plug-in hybrid vehicle models in the last two years, almost all of which use lithium-ion batteries for onboard energy storage.”

Put simply, lithium-ion batteries are able to store more energy with greater longevity than their lead nickel, nickel cadmium, and nickel metal hydride counterparts. The cost of building lithium-ion batteries – for so long a prohibitive factor – is also falling fast, so they are the obvious choice for a burgeoning electric vehicle market.

Two of the world’s largest automakers, BMW and Volkswagen Group, have recently embarked on high-profile electric vehicle product launches, with demand for the [carbon fiber BMW i3](#) outpacing supply and similar interest anticipated for the [excellent Volkswagen e-Golf](#). Porsche, Audi, Bentley and Mercedes are also planning to launch similar vehicles within the next three years. All will use lithium-ion batteries.

In Asia, Nissan and Mitsubishi have also both committed to using lithium-ion batteries across their future model lineups, and increasing pressure to improve air quality in China will likely see generous government incentives for zero emissions vehicles [in a fast-growing market](#).



Volkswagen Group will use its many brands to offer electric car buyers huge choice

While electrified cars currently occupy only a slender proportion of the overall vehicle market, that slice is growing fast. A recent report from the Center for Solar Energy and Hydrogen Research in Germany found that sales volumes of electric cars are [currently doubling year-on-year](#), with 400,000 examples sold worldwide in the year up to January 2014.

That kind of growth will slow, but [IHS still expects electric vehicle production to increase](#) by 67 percent this year with Europe. It says increased choice of electric vehicles and the addition of some 35,000 public charging stations worldwide will ease the switch from combustion engined cars for undecided buyers.

Perhaps the largest single contribution to lithium-ion battery totals will be [Tesla's 'gigafactory'](#), which is due to become operational in 2017, in time for the [cut-price Model E sedan](#). Running at maximum capacity, the 500,000 battery packs the \$4.5 billion facility will be capable of producing could represent half of all units made each year worldwide.

While battery-electric and plug-in hybrid cars will continue to demand the lion's share of lithium-ion battery, [Navigant Research](#) believes than an increasingly number of conventional cars with stop-start technology (whereby the engine stops running when the car is stationary) will adopt such batteries. The proliferation of stop-start technology across all sectors would further boost demand considerably.

A [parallel forecast](#) from [Transparency Market Research](#) echoes Navigant's conclusions, though it puts a higher value of \$33.11 billion on the global lithium-ion battery market by 2019. It cites the military and consumer sectors as driving demand alongside the automotive sector.

The report from Navigant Research can be [found here](#).

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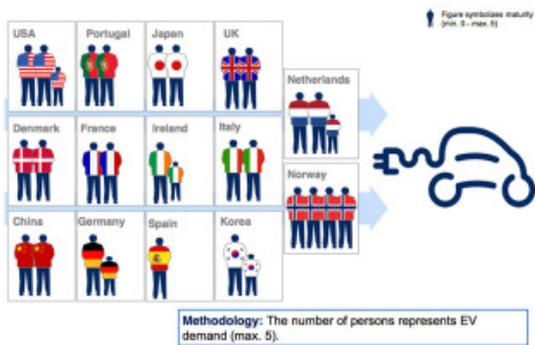
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Tags: battery demand, electric car sales, lithium-ion battery supply

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ABOUT RICHARD LANE

Richard is a London-based automotive journalist specialising in future mobility and sustainable design. Having fallen for cars because of the virtues of a particular German flat-six, it's what we'll all be driving next that now interests Richard most. Dream garage: Alfa Romeo GT 1300 Junior and a Detroit Electric SP:01.

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