

**A recent report from Navigant Research, total worldwide capacity of Li-ion batteries for transport, will increase ten-fold. From 4,400 MWh in 2013 to 49,000 MWh by 2020.**

“Li-ion technology continues to improve, as increased energy densities translate into smaller & light battery packs with more power. At the same time, leading battery cell makers build new factories utilizing the latest technology. Reducing the cost per kWh.



Lithium-ion batteries are the hearts of modern electric cars. Could this battery chemistry have other automotive uses? Juno Power has applied lithium-ion technology to A jump-starting pack. Juno Power says is the world's "most portable." With a weight of just 7 ounces, it's hard to argue with...



## Tesla Seeks North American Raw Materials To Cut Pollution

There is no such thing as a truly green car. All cars require raw materials and energy to produce, use energy during their time as transport. Cars require energy to recycle-- That is the components that can be recycled, at least.



Tesla battery pack

## 2013 Honda Fit EV charging on Algonquin Lake, Wells, NY



All electric vehicles currently use some form of lithium-ion chemistry in their battery packs. Ways of improving that chemistry is therefore very important--the aim being to make future electric car batteries cheaper, more stable and more energy-dense for longer range. Researchers from the University of Tokyo have found a way to develop a lithium-based battery with seven times the energy density of current lithium-ion batteries, according to Nikkei Technology. This has, at least the major benefits you'd expect should it be introduced in production. Lower cost, greater capacity and increased safety. The team have used a new material on the positive electrode in the battery, formed by adding cobalt to lithium oxide

This aids an oxidation-reduction reaction and as a sealed design it's more stable and safer than lithium-air.



## Battery Maker Boston Power Gets \$250 Million Investment From China

Tesla CEO Elon Musk's announcement that the firm is planning to build a battery 'gigafactory' and confirmed what is obvious. More electric cars means more demand for batteries. U.S. battery firm Boston-Power knows this too, and plans to expand its own operations. Following a \$250 million investment from China.



## BMW Designs Custom Solar Charging Station For i3.

Solar charging is indisputably one of the best ways of running an electric vehicle. It certainly mitigates any lingering worries about fueling your car with a smoke-belching coal-fired power plant. BMW is backing solar too, commissioning its BMW DesignworksUSA arm to design a stylish solar carport, perfect for the i3 electric car



## Electric-Car Incentives Vary Globally--A Lot--But Generally Work

In the US If you bought an electric vehicle recently, chances are you may have enjoyed some of the myriad incentives currently offered on plug-in cars. Income-tax credits, purchase rebates, sales-tax exemptions, and various non-monetary incentives have been used worldwide to spur plug-in car sales growth. Source, data from the International Council on Clean Energy.





## **Electric Cars Have a Dirty Little Secret**

Like most of the world's billion cars, they use a super greenhouse gas in their air-conditioning systems. HFC 134a it traps 1,400 times more heat than carbon dioxide over a 100-years



BMW has announced that it's open to sharing the battery technology it uses in its i3 and i8 plug-in vehicles with other automakers. **The company hopes that by sharing the technology.** Which it co-developed with Samsung SDI, it will benefit from improved economies of scale. **According to Automotive News Europe, BMW purchasing boss Klaus Draeger.**

