

# Musk's remarks nudge hopes for affordable Tesla EV

3 March 2014, by Nancy Owano



Tesla Model S

(Phys.org) —Monday's headlines hummed with Tesla Motors CEO Elon Musk's few remarks about what may be in the cards for its upcoming "budget" electric vehicle, the Model E. At the least, the remarks drive a little closer to a price amenable to the mass market. Key points are that the Tesla Model E will be 20% smaller than the Model S and that it will carry a battery good for 200 miles on a single charge. Musk was speaking at the California Public Utilities Commission's event, Thought Leaders Speaker Series, on February 27. Based on his remarks, *Electrek* on Sunday worked out some numbers and said it looks as if Tesla is setting its sights on a 48 kWh Battery.

"Therefore the [battery](#) will need to have about 80% of the energy of the current Model S (Musk's words). To be clear, since Tesla uses the constant sized 18650 cells (and looks to continue to do so) physical size and Watt-hours are fairly constant. So given that a 60kWh Model S has a range of around 200 miles (EPA 208), that means that the Model E would need to have a battery around 80% the size of the Model S or 48kWh." Car blog *Gas 2* said that a 48 kWh pack should theoretically be good for at least 150 miles of [driving](#) with today's

technology.

The battery details feed into the big question about upcoming Model E affordability. *Electrek* offered this observation: "Musk also mentions that besides the 20 percent drop in price, he expects economies of scale and other innovations to drop the price another 30 percent on the battery alone helping to get the Model E to around 50 percent the cost of the Model S at \$35,000."

Tesla has spoken about its goal of producing a mass market electric car in approximately three years. The Model E could be released in 2017 with batteries coming from the Gigafactory. In February, Tesla announced it planned to build a battery "gigafactory" to help drive down the costs of its battery packs by over 30 percent,

"As we at Tesla reach for our [goal](#) of producing a mass market electric car in approximately three years, we have an opportunity to leverage our projected demand for lithium ion batteries to reduce their cost faster than previously thought possible. In cooperation with strategic battery manufacturing partners, we're planning to build a large scale factory that will allow us to achieve economies of scale and minimize costs through innovative manufacturing, reduction of logistics waste, optimization of co-located processes and reduced overhead. The Gigafactory is designed to reduce cell costs much faster than the status quo and, by 2020, produce more lithium ion batteries annually than were produced worldwide in 2013. By the end of the first year of volume production of our [mass market](#) vehicle, we expect the Gigafactory will have driven down the per kWh cost of our [battery](#) pack by more than 30 percent."

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