IHS Automotive forecasts global production of plug-in vehicles to rise by 67% this year

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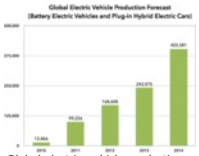

Global electric vehicle production forecast for 2014. Source: IHS Automotive. Click to enlarge.

Driven by tighter emission standards in Europe, worldwide production of plug-in electric vehicles(PEVs)—including both battery-electric (BEV) and plug-in hybrid (PHEV) models—will increase by 67% this year, according to IHS Automotive, driven by Polk. The jump in the PEV market this year contrasts with an expected 3.6% rise in global manufacturing of all motor vehicles expected in 2014.

Total production of PEVs is projected to rise to more than 403,000 this year, up from slightly more than 242,000 in 2013. Growth will accelerate sharply from the 44% increase in 2013, based on data from the new IHS Automotive Hybrid-EV Portal. In December 2013, IHS projected total global automotive sales in 2014 of 85 million, roughly resulting in an expected approximate 0.5% share for PEVs in the global market this year.

The Europe, Middle East and Africa (EMEA) region will account for the largest share of production at more than 40%, with the Americas and Asia-Pacific each making up about 30%.

> *European emissions standards are tightening in the second half of this year with the implementation of the European Commission's Euro 6 legislation. At the same time, European automakers are introducing compelling new EV models, such as the BMW i3. These factors will boost EV demand and manufacturing in Europe in 2014.*
>
> —Ben Scott, analyst for IHS Automotive

The boom in production is the most significant of 10 predictions being issued by IHS Automotive concerning EVs in 2014. The other nine predictions are:

- This year will offer more choices for consumers who are considering buying EVs. Battery electric vehicles from the German carmakers including the BMW i3, Volkswagen's e-Up!, the Mercedes-Benz B-Class Electric and Audi's A3 e-tron plug-in hybrid are welcome additions to the current lineup of electric propulsion vehicles in 2014. More product availability and greater choice will help wider adoption of EVs.

- The global installed base of EV charging stations is set to reach more than 1.1 million units worldwide by the end of this year.

- This year will see the worldwide rollout of public "trio" chargers that comply with the AC-Type 2 Mode 3, DC-CHAdeMO and DC-CCS standards. These public infrastructure solutions have complete compatibility with all EV models, although coming at a price for charge-station owners. Trio chargers are large, imposing metal boxes containing power electronics and three connector types. And while trio chargers offer more flexibility in terms of charging, they reflect uncertainty in the future direction of charging standards. The domestic charging market, typically an AC domain, will be shaken up this year with the introduction of DC chargers. Although the product is more expensive than a domestic AC charger, suppliers are confident that the cost of a domestic DC charger can be brought down over time, with installations likely in Europe and China.

- Business conditions in 2014 will be tough for companies that manufacture AC charging stations. Pricing for domestic AC charging stations is decreasing and starting to reach commodity levels. Margins are low and are expected to become smaller, resulting in an unviable business case.

- In 2014 and the coming years, automakers will deliver concept and production EVs with large batteries that have capacities of approximately 40 kWh, which equates to at least a 150-mile (241 km) range. Lithium-ion battery prices are decreasing as a result of the price war between LG Chem, the battery supplier to the Chevrolet Volt; and Panasonic, the battery supplier for Tesla's Model S. Because of this, carmakers can afford to put larger batteries into their vehicles and reduce range anxiety.

  > *Less than $250 per kWh for a lithium-ion battery is the generally accepted price level for these batteries to become mass market in automotive—a price we will get closer to this year. The addition of Samsung SDI—the battery supplier to the BMW i3 and Fiat 500e, and potentially the new battery supplier for the Tesla Model S and X—will also help drive battery prices down.*
  >
  > —Ben Scott

- Suppliers and original equipment manufacturers (OEM) are expected to demonstrate more energy-and fuel-saving technologies this year. Ford has presented its C-MAX Solar Energi Concept, which uses a solar panel on the roof of the car. With the help of a solar concentrator, enough energy can be drawn from the sun in a day to equal a four-hour battery charge equal to 8 kWh. Bosch has developed a new start/stop system that shuts off the engine

when the car is coasting, delivering fuel savings of up to 10 percent. Technologies like this could bring internal combustion engine (ICE) vehicles closer to the energy-saving benefits of hybrid electric vehicles.

- Public charging-station operators and owners will continue to struggle to make a profit on electric vehicle charging in 2014. Although electric vehicle production is slowly increasing and is closer to reaching the expectations of five years ago, there aren't enough grid-dependent vehicles on the road yet to generate large revenues from public charging. Other forms of revenue generation will need to be implemented this year by operators and owners, such as advertisements on charging stations using integrated liquid-crystal display screens.

- This year will be important for new energy vehicles (NEVs)-- i.e., EVs, PHEVs and fuel cell cars—in China with deployment of these vehicles driven by government policy. In Beijing, for example, the city aims to limit new-vehicle sales to curb pollution while simultaneously increasing deployment of NEVs. The city plans to deploy a total of 170,000 NEVs from 2014 and 2017, with 20,000 NEVs introduced in 2014.

- The price of EVs is expected to decrease in 2014, as more OEMs enter the marketplace. Although Nissan recently announced a slight price increase on the 2014 Leaf from last year, there is a decrease of about $6,000 between the 2012 and 2014 models. The price of the 2014 Chevrolet Volt also experienced a similar price drop, and other vehicle models will likely follow the trend. Price is the main reason why uptake of these vehicles hasn't been as high as expected, so incentives are critical if countries are serious about the adoption of such vehicles. In 2014 it may be possible that we see EV legislation or incentives in new regions.

February 4, 2014 in Electric (Battery), Forecasts, Hybrids, Manufacturing, Plug-ins | Permalink | Comments (4) | TrackBack (0)

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With +44% in 2013 and +67% in 2014 and probably +110% in 2015, PEVs = (PHEVs + BEVs) will be gaining more market share from ICEVs than expected.

With the arrival of 5-5-5 batteries by 2018 or so, PEVs sales could jump over 200% per year. Sales of HEVs and ICEVs will start their progressive accelerated phase out.

Posted by: HarveyD | February 04, 2014 at 08:18 AM

The price of EVs is expected to decrease in 2014

Price is the main reason why uptake of these vehicles hasn't been as high as expected, so incentives are critical

range...

Posted by: SJC | February 04, 2014 at 02:01 PM

> *"uptake of these vehicles hasn't been as high as expected,"*

Keep beating the drum. If you repeat it often enough, people will start to believe it. In reality, EV's have progressed much much faster than anyone would have thought possible a mere 5 years ago. This whole 'EV sales are disappointing' narrative is getting really annoying. It is a totally made up story.

> *"In 2014 and the coming years, automakers will deliver concept and production EVs with large batteries that have capacities of approximately 40 kWh,"*

I wonder who that might be. To my knowledge, no manufacturer has shown anything that might hint to a 2014 introduction of an EV with 40 kWh battery. (not counting Tesla which are already available and perhaps some unaffordable Audi e-Tron supercar)

Posted by: Arne | February 07, 2014 at 06:19 AM

We already have EVs with 80+ kWh battery pack.

I doubt if the future will go backward to 40 kWh packs.

We should soon see 100 and 120 kWh EVs but with lighter-smaller volume 5-5-5 battery packs.

Posted by: HarveyD | February 07, 2014 at 01:45 PM

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