Going Green on the Road

With abundant government support, Korea’s green car industry aims to lead globally.

The Korean government has supported automakers in developing advanced vehicle technologies since the early 1990s through the Green Car Industry Long-term Development Plan of the Korean government has strived to promote research and development (R&D) collaboration, development of high-speed battery electric vehicles (BEVs) and plug-in hybrid electric vehicles (PHEVs), power train, including clean diesel, hybrid, electric vehicle development in 2010, and plans to start producing plug-in hybrid electric cars of 100,000 hybrid cars by 2013 and planned electric vehicle development in 2010. The government has facilitated a tri-ver- national electric vehicle test bed. Among foreign automakers, GM Korea produced 1,227 Spark BEVs but sold 40 in 2013. Renault Samsung introduced the SM3 BEV in the second half of 2013, and produced 403 units and sold 398 units in 2013. The government is expanding charging stations nationwide. The MOE deployed 80 public fast chargers that follow the CHAdeMO standard in 2012. It also built an information system for public charging infrastructure. Consumer attitude toward BEVs is improving. According to a government survey of 405 BEV drivers in Jeju Island, a BEV test bed, 52.8 percent of respondents revealed purchasing intent and 92.3 percent wanted a fast charger. Jeju, a special self-governing province, is providing an additional KRW 8.8 million as subsidies for BEV drivers in Jeju Island.

The government will nurture electric vehicle-related service companies and emphasizes that the revenue generation of charging business is more important for the survival of service companies. The government initiated the Smart Place and Transportation Project on Jeju Island in September of 2010. By December of 2013, there were 400 charging points and 250 BEVs on Jeju Island. Nine proving areas are being expanded: Seoul, Bucheon, Dangjin, Younggwang, Gwangju, Changwon, Daegu, Jeju and Pohang. The number of charging points in those areas numbered 130 in 2010. The MOE added 100 public fast chargers in 2013.

OEMs have been accelerating the commercialization of high-speed BEVs starting this year. Kia has set an Eco Dynamics’ BEV development plan and Hyundai has set a Blue Drive BEV development plan. Thus far, Kia has supplied more than 1,000 Ray BEVs for public organizations. Kia produced 343 Ray BEVs and sold 277 in the domestic market in 2013.

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Recently, the Seoul Metropolitan Government introduced EV sharing programs to improve air quality. Seoul City operates more than 200 BEVs and 60 rental points. Anyone who wants to use a BEV should register and receive membership cards online or via their phones. Rental fees for a Ray EV is about USD 5 an hour, which is a bit lower than the ICE models’ fee of USD 6 an hour. Drivers can rent a BEV for a day.

Hyundai produced 43,390 hybrid vehicles in 2013 and continues to produce them actively today. In 2004, Hyundai supplied 50 Click hybrids to the MOE and Kia developed the Pride Hybrid in 2005. Hyundai and Kia have intensively produced hybrid vehicles since 2009. Kia produced more than 26,780 hybrid vehicles and Hyundai more than 21,922 in 2013. Hyundai will introduce fuel cell vehicles in 2015, and the company and the government will construct fuel cell stations in metropolitan areas.

It is worth noting that the government provides tax incentives and subsidies for hybrid vehicles and BEVs, and Hyundai and Kia foreign OEMs are increasing green car models. With sales of green cars expected to continue rising, Korea is poised to lead the global green car industry.

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