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Government project for Developing New EV

Current status of EV in Korea

Maker	EV Development project	Models
HMC & KIA	<ul style="list-style-type: none">▪ BlueOn, 1st EV in Korea in Sep. 2010▪ Ray EV, produced in 2011 Sold 1,500 vehicles as of today	
R-Samsung	<ul style="list-style-type: none">▪ SM3 ZE, Compact car EV SOP in 2013, 4000 vehicles in 2014	
GM Korea	<ul style="list-style-type: none">▪ SPARK EV developed conjunction with GM (SOP plan: 2013)	

Gov. project for Next generation EV (I)

- **Project:** Next generation EV in 2014
- **Period:** July 2011 ~ June 2014 (36 months)
- **Budget:** 110 Millions USD
- **Project partners:**
 - Leader: Hyundai Motor
 - Participants: 44 organizations

Gov. project for Next generation EV (II)

■ Compact EV for 5 passengers



Description		Compact car EV	Ray EV (KIA)
Dimension (mm)		4,530 x 1,775 x 1,435	3,595 x 1,595 x 1,700
Traction Motor		80 kW(PMSM)	50kW(IM)
Battery		27 kWh ~	16.4kWh
Maximum cruising range		200 km ~	139km
Acceleration (0->100kph)		11.5 seconds ~	15.9초
Max speed		145 kph ~	130kph
Charging system	Slow	5 hours (6.6kW)	6 hours (3.3kW)
	Fast	20 min.	25 min.

Promotion of EV

- Restructuring Legal & Regulation -
- Building Charging Infrastructure -
- Promotion & Demo project -

Promotion of EV (I)

- Supply EV to Public sector first
 - Provide **subsidies for purchasing EV by public agencies**
- Provide incentives to general customers
 - support **50% of gasoline vehicle price (Max \$20,000)** until 2014
- Support installing a charging station
 - Provide **low interest Loan for installing a charging system**

Promotion of EV (II)

- EV dissemination by **Ministry of Environment**
 - Promotion of EV dissemination **more than 5000 EVs** until 2014
 - Domestically suitable charge infrastructure
- ➔ Reduction **6,500 tons of CO2 emission**
- ➔ Saving **7,500,000 USD per year** in energy demand

※ CO2 emission reduction: 1.3 ton per one EV
Saving energy demand: 1,500 USD per one EV

Current status of EV Charging facilities in Korea

■ EV Charging facilities by **Government** as of 2012

– Seoul, Busan, Jeju, Gyeonggi, Chungnam, , , ,

Description	2010	2011	2012	Total
slow charger	9	312	676	997
quick charger	7	26	94	127
Total	16	338	770	1,124

Goal of Charging Infra by 2016

- Deployment of **15,000 Units** of EV charging station for supporting to the dissemination of EV

Description	Quick	Medium	Slow
Charging time	< 30 minutes	2-3 hours	< 8 hours
Model			

Demo project of EV in Jeju island

Spark EV by GM Korea

NetCarShow.com



Ray EV by Kia



SM3 Z.E. EV by Renault-Samsung



SM3 Z.E. EV by Renault-Samsung

- 1,000 vehicles will be built in 2013
- 4,000 vehicles will be built in 2014
 - R-Samsung wants to become **#1 in EV market in Korea**
- Jeju & Seoul will purchase **1,000 SM3** for Taxi in 2014
- MSRP of SM3 ZE is \cong **40,000 USD**
 - Central Government Subsidy: 14,000 USD
 - Local Government Subsidy: 5,000 ~ 7,000 USD
- 1,500 EVs were sold in Korea as of Today.



Recent news of HMC FCEV (Tucson iX)



Thank you very much for your attention

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