

Collection and Recycling of Rechargeable Batteries

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01. Collection & Recycling of R.B





EPR (Extended Producer Responsibility)

- **EPR began to be applied to products and packing materials in Jan. 2003.**
- **Product** : Electronics (TV, Fax..), Batteries (Mercury), Tires, Lubricants ... etc.
- **Packing materials** : Paper bags, bottles, Polymer materials for Drinks, Food ,etc
- **Batteries on the table below are controlled by EPR**
 - The Ministry of Environment is considering to include lithium rechargeable batteries as items subject to EPR.

No	Item	Ratio*
1	Mercury Batteries	60%
2	Silver Oxide Batteries	49.9%
3	Lithium Batteries	58.2%
4	Ni-Cd Batteries	38.3%
5	Manganese, Alkaline Batteries	26.8%
6	Nickel Metal Hybrid Batteries	29.5%

* **Complusary recycling ratio**



02. xEV Battery



☞ LIB : Rechargeable Lithium Ion Battery

01 Carbon-free by 2030 in Jeju island



By 2030, 100% of existing fossil fuels will be substituted with renewable energy. Jeju residents will also see the proliferation of electric cars and smart homes, among many other improvements:

- Wind and solar power

Based on projections, wind and solar power sources can supply approximately 6561GW which is more than the total used amount on Jeju Island.

- Smart-grid technologies

Jeju will aim to be the world's smart grid leading city by supporting the development and implementation of smart grid technologies.

- Electric cars

371,000 electric cars and 225,000 rechargers will be available across the island by 2030. In addition, improvement of law and regulations for vitalizing electric cars and incentives for spreading battery cars will help Jeju to be a model city of electric cars.

- Green jobs

About 40,000 green jobs will be created, mostly through carbon emissions training, returning a profit of up to 35.4 billion Korean.



EV

Distribution of Electric Vehicles upto 100%

- ✓ Public Sector by 2017 ⇒ 10% switch (Accumulated to 29,000)
- ✓ Public Transportation by 2020 ⇒ 30% switch (Accumulated to 94,000)
- ✓ Private Vehicles by 2030 ⇒ 100% switch (Accumulated to 371,000)





100% of cars will be replaced with EV in Jeju

EV

	Dec 2013	Jul 2014	Dec 2014	Dec 2015
Supplied EV	360 cars	619 cars	852 cars	2367 cars








- ✓ 2017 ⇒ 29,000 cars
- ✓ 2020 ⇒ 94,000 cars
- ✓ 2030 ⇒ 371,000 cars

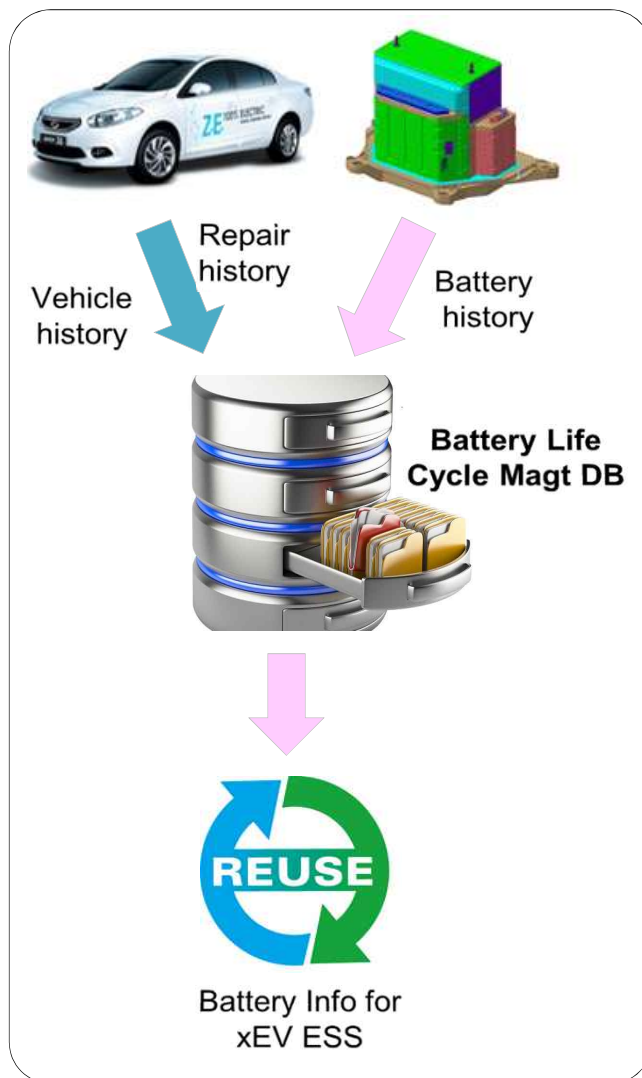
[The Test ride of EV in Jeju_2014]



02 xEV specification in Jeju



Maker	KIA		Renault samsung	Korea GM	BMW	Nissan	Powerplaza	
Name	 RAY	 SOUL	 SM3	 SPARK	 i3	 LEAF	 PEACE	
Speed (Max)	130km/h	145km/h	135km/h	145km/h	150km/h	140km/h	95km/h	
Charging Time	Slow	6h	4~5h	3~4h	6~8h	3~5h	5h	4h
	Fast	25min	25min	30min	20min	30min	40min	-
Battery Capacity	16.4kWh (14kWh)	27kWh (24.3kWh)	26.6kWh (22kWh)	21.4kWh (19.4kWh)	21.3kWh (18.8kWh)	24kWh (19.2kWh)	17.8kWh (16kWh)	
Warranty	6year 120,000km	10year 160,000km	5year 100,000km	8year 160,000km	8year 100,000km	5year 100,000km	7year 150,000km	
Price [10,000₩]	3,500	4,150	4,190	3,990	5,750 6,470	5,480	3,690	
Subsidy	2,200 (20,370 \$ US)						1,700	



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Thank you!!

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