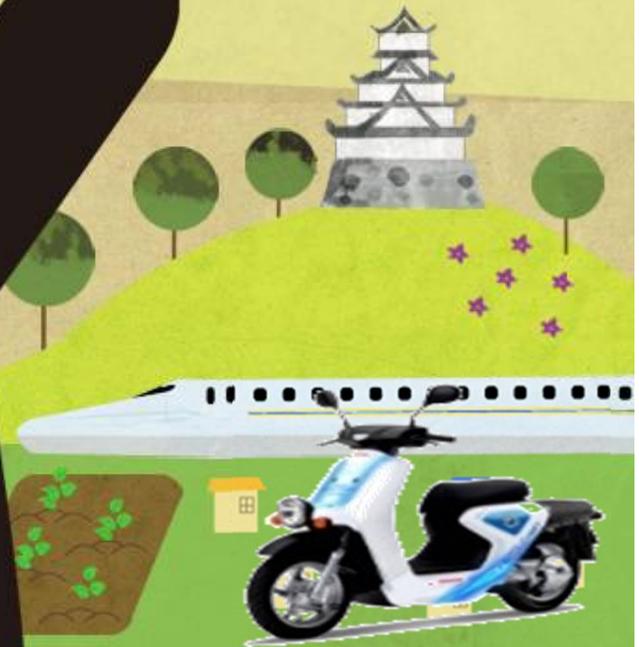




June 5, 2013 EV&PHV Symposium (Tokyo Big Sight) Briefing handout  
Industrial Support Division, Kumamoto Prefecture

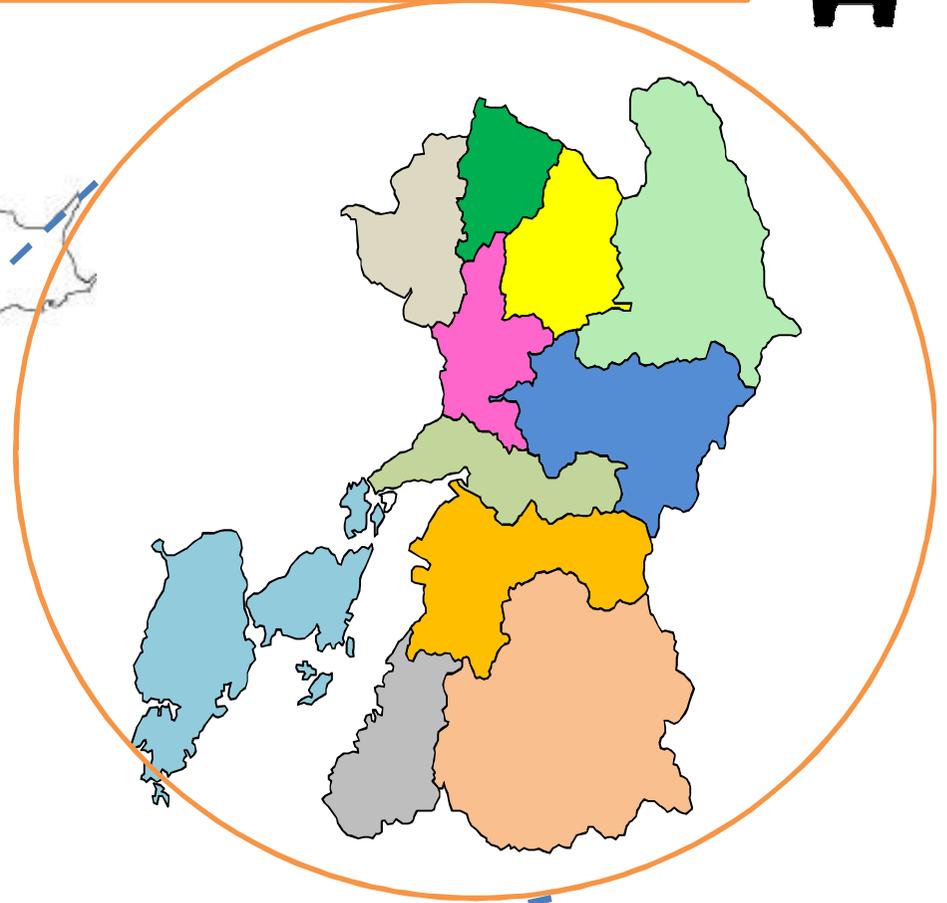
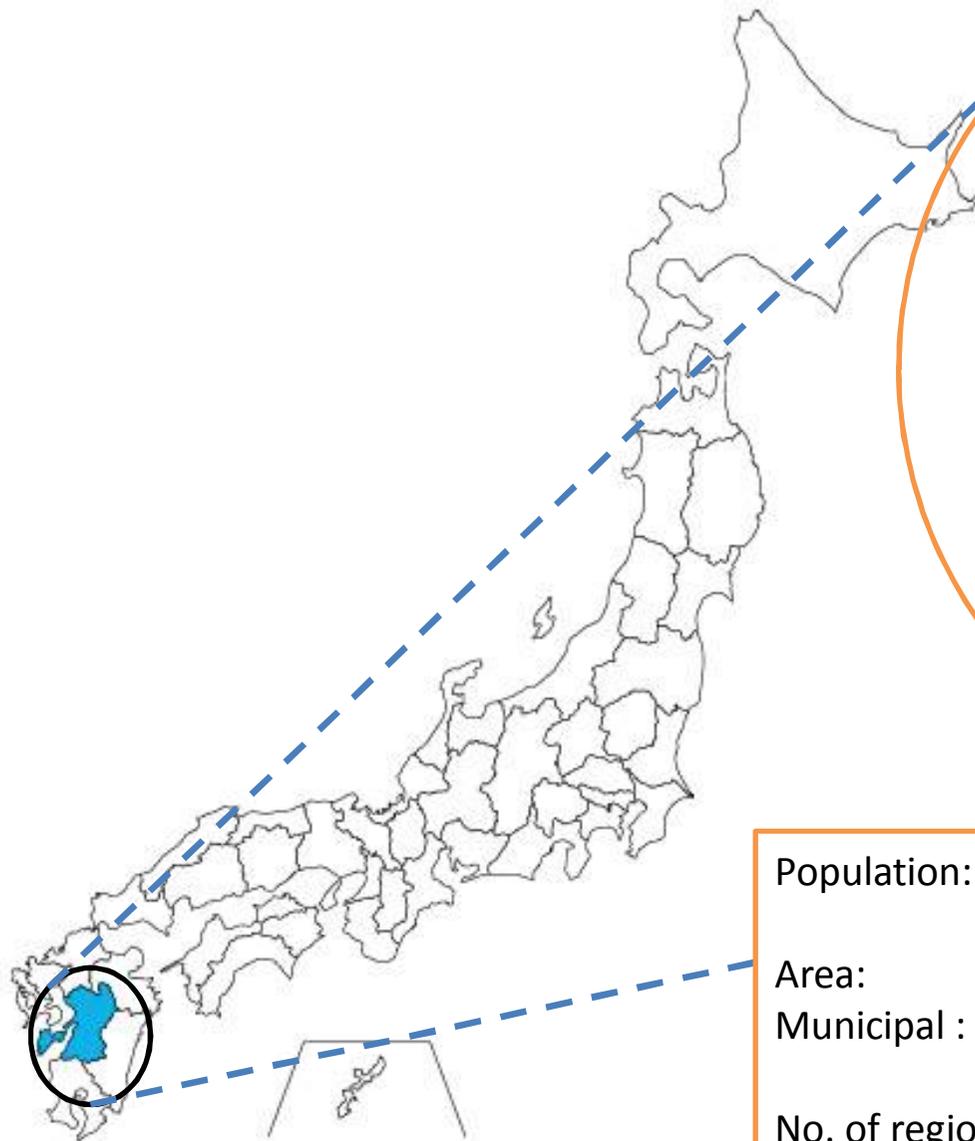


# Kumamoto Prefecture's Visions for Development of Charging Infrastructures for Next Generation Personal Mobility





# Outline of Kumamoto Prefecture (1)



Population: Approx. 1,817,000  
(2010 National Consensus)  
Area: Approx. 7,404 km<sup>2</sup> (as above)  
Municipal : 45 municipalities  
(14 cities, 23 towns, 8 villages)  
No. of regions: 11 regions

# Outline of Kumamoto Prefecture (2)



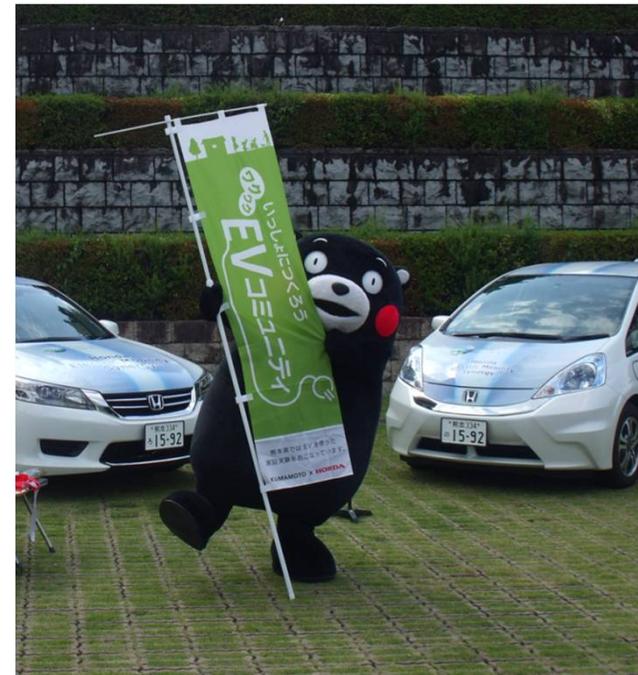
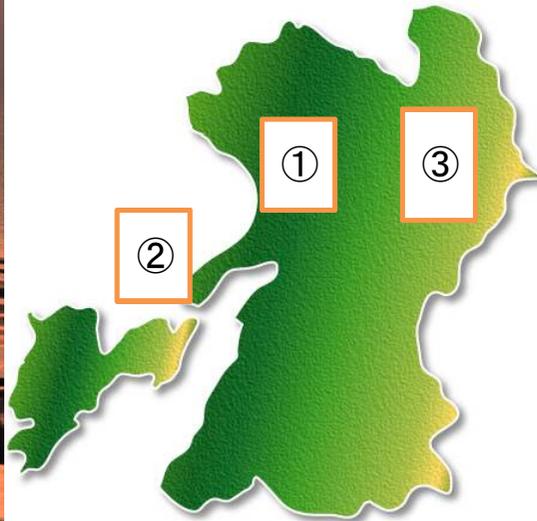
① Kumamoto Castle



③ Mount Aso



② Okoshiki Beach, Uto





# Efforts to Date



- August 2010 - Kumamoto Prefecture and Honda enter an agreement to perform testing of next-generation mobility within the region.
- December 2010 - Makes an early start on efforts to disseminate electric vehicles such as planning of the EV&PHV Town Initiatives in Kumamoto Prefecture (authorized by METI).



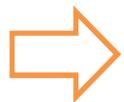
◆ In this situation , the prefecture has been promoting the use of chargers, by installing the chargers owned by the prefecture in the public facilities, such as roadside stations, which are not owned by the prefecture.

[EV & PHV Town Concept]

- ◆ Normal Chargers : about 80 locations installed mainly to public facilities (e.g. roadside stations)
- ◆ Quick Chargers : about 10 locations installed in each municipality

[2011 “Concept of Installation plan”] (Internal policy)

- ◇ Normal Chargers : Introduce a point system for the locations and the number of installed chargers by regions
- ◇ Quick Chargers : Set the priority order of candidate facilities and areas (prioritize selected areas of demonstration)



**Systematic installations carried out before current planning of visions**





1. The Development of Charging Infrastructures for Next Generation Personal Mobility project conforms to the EV & PHV Town Concept, and is scheduled to continue to 2020.
2. The target number of chargers to be installed in 2020 is 550 units or more, based on the forecast that 15,000 EVs will be running in the prefecture in the year. (of which , 110 or more quick chargers)
3. Distribute 550 units amongst municipals. Other than population, take into account details such as prefectural borders, tourist spots, transportation hubs, etc. when calculating distribution method.
4. 404 units, which is the number left after subtracting the 146 units already installed from the 550 units, shall be used as the targeted number to be installed in the future.



## Kumamoto Prefecture's Visions for Development of Charging Infrastructures for Next Generation Personal Mobility



May 2013  
Kumamoto Prefecture



## Contents

1. Purpose of drawing up visions
2. Duration of planning
3. Outline of Town Initiatives
4. Building of charging infrastructures to date
5. Building of charging infrastructures in the future
6. Efforts for realizing visions

Data1. Map of Kumamoto Prefecture  
Data2. Map of Kumamoto Prefecture  
Municipals

〔 Drawn up May 2, 2013 (Visions approved as 004) Industrial Support Division 〕



### 1. Purpose of drawing up visions

○Based on the achievements made in Kumamoto Prefecture to date in METI's 2012 project, promote the development of infrastructures by the private sector, and accelerate efforts for realizing the "Next Generation Personal Mobility Society" throughout the prefecture.

### 2. Duration of planning

○ FY 2013 - End of FY 2020



## 3. Outline of Town Concept

### Target

Construct a model of the next generation personal mobility society in the region suited to a low carbon society throughout generations.

○ Three directions: “Creation of initial demands” , “dissemination and awareness raising”, and “development of infrastructures”.

○ 【No. of cars running】

2013 – 300 EVs & PHVs / 1,000 Electric Motorcycles

2020 – 15,000 EV & PHVs

2050 – 67,000 EV & PHVs

【No. of charging infrastructures installed】

80 normal chargers and 10 quick chargers





## 4. Charging infrastructures installed to date

[Normal chargers] Target 80 locations  
(Installed in prefecture : 2011 - 2013)

○Set estimated number to installed per region taking into account living area of the people, facilities often used, number of households and area of the 11 regions, etc.

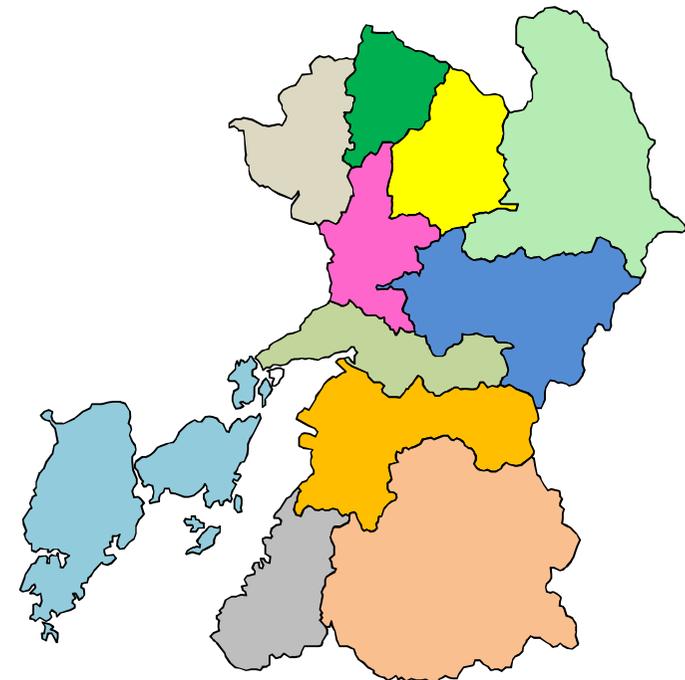
[Quick chargers] Target about 10 locations  
(Installed in prefecture : 2011 - 2013)

○About 1 location per regions

As of May 2013

No. confirmed to be installed in Kumamoto Prefecture and other prefectures

Normal chargers:	125 locations
Rapid chargers:	21 locations
Total:	146 locations





## 5. Development of Charging Infrastructures

○ Target number of public chargers to be installed is set taking into account spread of EVs aimed at for 2020 (15,000 EVs)

No. of chargers **550 units or more** Of which 110 or more rapid chargers (more than 20% of total)

**【500 units】** Current number of cars and lubricators  
○ Divide with population of municipals (correlation with spread of cars)  
○ Adjust to 4 units at the least

**【50 units】** Users from other prefectures  
○ Border between prefectures (linked by national roads)  
○ Tourist spots (Mount Aso area)  
○ Transportation (Airports, Shinkansen stations)

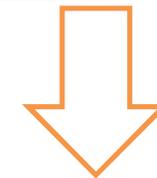
**Number of units to be installed are decided for each municipal**

# Visions (7)



	Overall Target	No. already installed	No. installed in future
A市	○ ○	▲ ▲	× ×
B町	◎ ◎	△ △	◆ ◆
C村	□ □	▽ ▽	⊠ ⊠
* *	...	...	...
Total	550	146	404

(Quick or Normal Chargers)



## 【 Vision List (Except) 】

Area Installed in	Installed Location		Type of Charger	No. of Units
	Region	Municipal		
1	Kumamoto	Kumamoto-shi	Quick or Normal Charger	140
2	Yatsushiro	Yatsushiro-shi	Quick or Normal Charger	19
44	Kuma	Asagiri-cho	Quick or Normal Charger	4
45	Amakusa	Reihoku-cho	Quick or Normal Charger	4
<b>TOTAL</b>				<b>404</b>



### 6. Toward the realization of visions

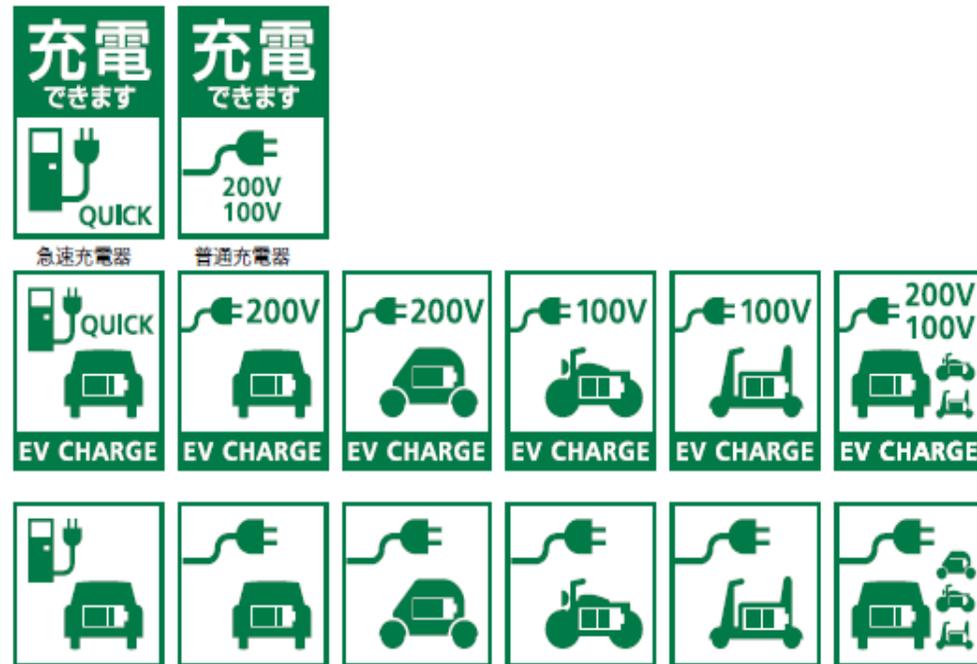
- Firm installation of chargers scheduled to be installed
  - 80 normal chargers planned for installation
    - About 30 more left to be installed
  - 10 quick chargers planned for installation
    - About 5 more left to be installed
  
- Promote installation of chargers by private sector
  - Holding of briefings for private enterprises (May 2013)
  
- Dissemination and awareness raising through demonstration and test drives, etc.



- “Design Guide for Kumamoto Prefecture EV Charger Signs”  
compiled jointly by industry, academia and government  
(Can be downloaded from prefecture’s website (Industrial Support Division))



## 【List of pictograms】(Examples)



Thank you for your kind attention



KUMAMOTO KUMAMON

