

Saga Prefecture's EV/PHV Town Program Based on a "24-hour EV Ubiquitous Network"



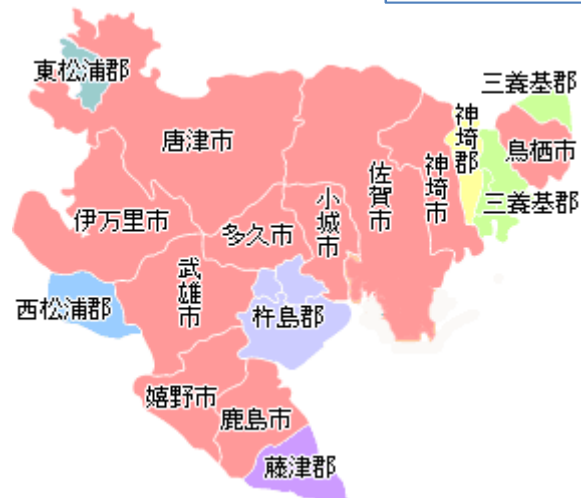
February 7th, 2013
New Energy Division
Agriculture, Forestry, Fisheries & Commerce Head Office
Saga Prefecture



About Saga Prefecture



Saga Prefecture is located in the Northwestern part of Kyushu. To the East is Fukuoka Prefecture, Nagasaki Prefecture is to the West, North lies the Genkai-nada Sea and to the South lies the Ariake Sea. In comparison to the 900 km to Tokyo and the 500 km to Osaka, it is only 200 km away from South Korea. Saga Prefecture played an important role both historically and culturally as a window into continental culture.



Area: Approx. 2,400 km²
(1% of total national area)

Population: 843,302 people
(as of October, 2012)

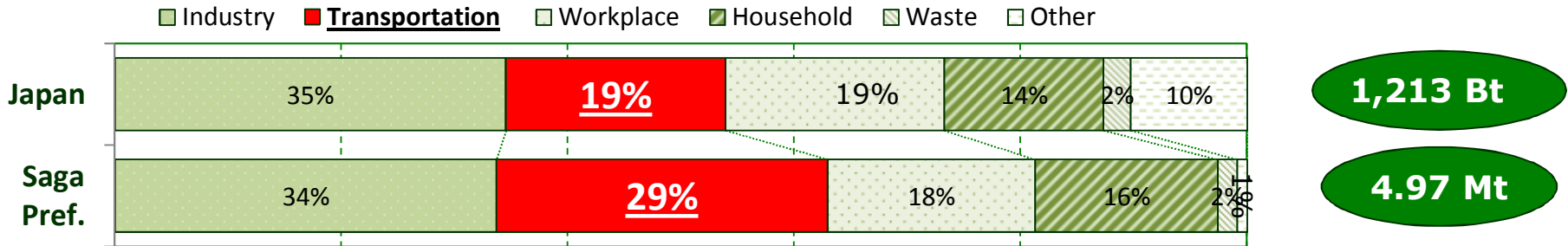
Households: 300,134 households

Total Vehicles Owned: 661,953 vehicles



Greenhouse Gas Emissions in Saga and EV/PHV

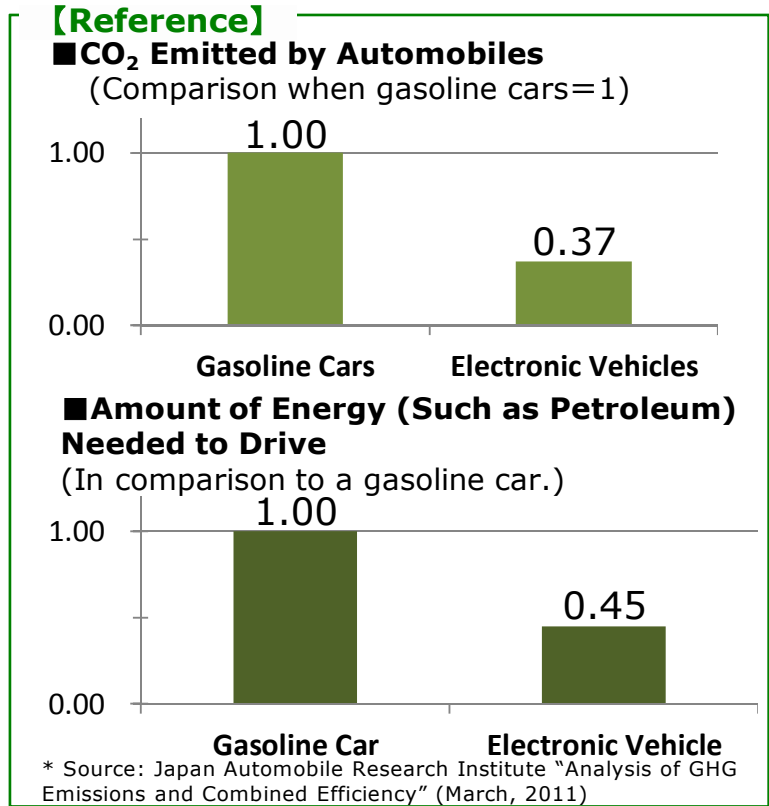
Carbon Dioxide (CO₂) Emissions (2008)



Transportation accounts for 29% of all CO₂ emissions in Saga Prefecture



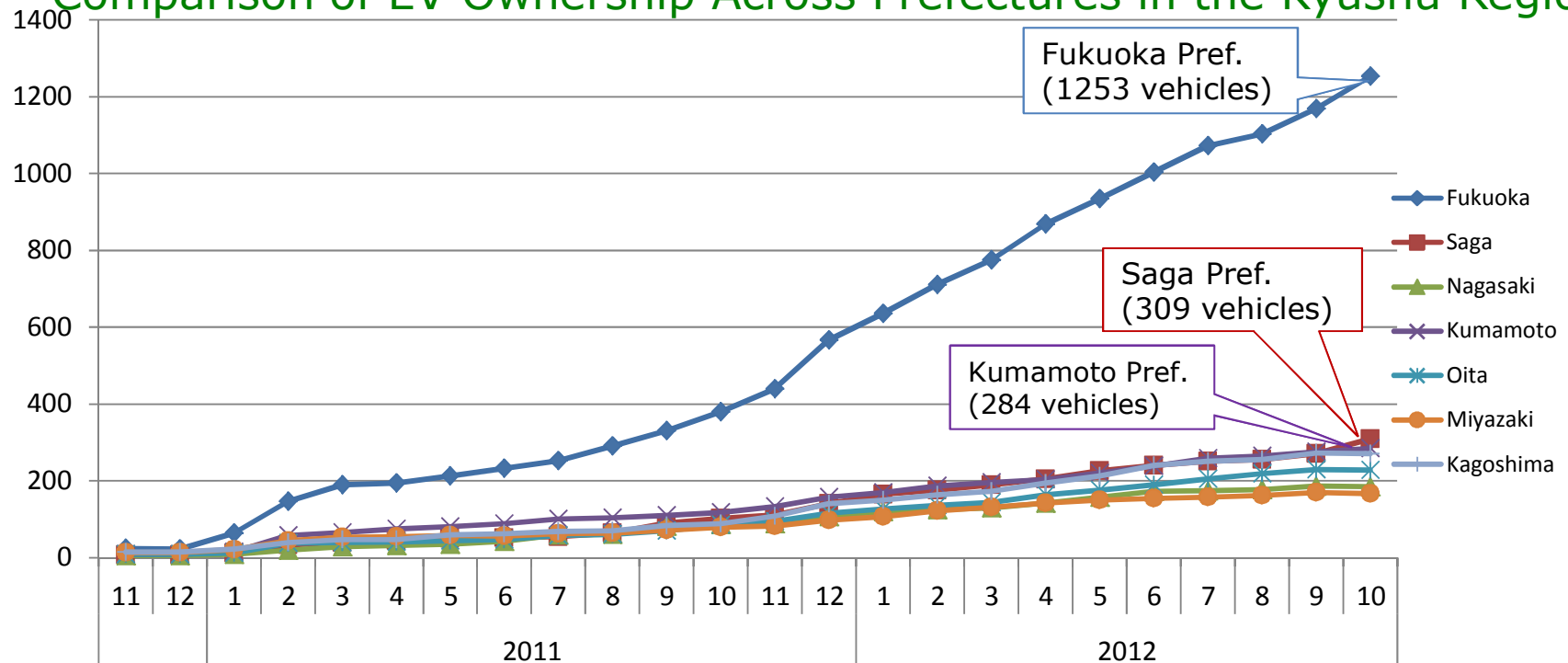
Our goal is to significantly reduce greenhouse gas emissions. In addition to preventing global warming through the promotion of EV/PHV, we aim to revitalize the region by actively working with related industries.





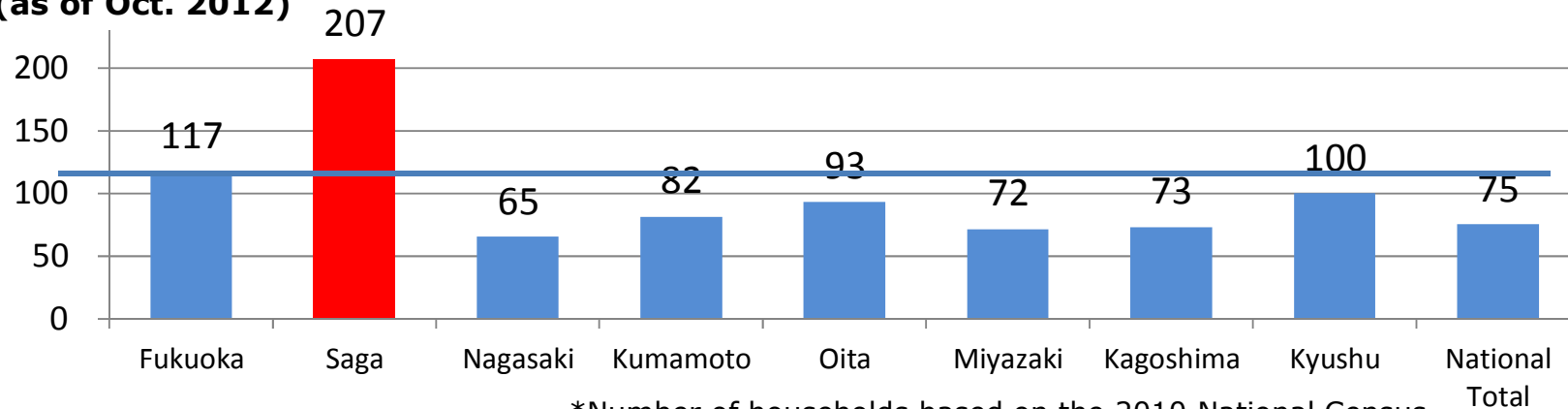
EV Ownership in the Kyushu Region

Comparison of EV Ownership Across Prefectures in the Kyushu Region



*Source: Kyushu District Transport Bureau "Vehicle Ownership by Fuel Type" (monthly publication)

Comparison Across Prefectures when Avg. Ownership per Household In Kyushu is set at 100 (as of Oct. 2012)



*Number of households based on the 2010 National Census



National Comparison of EV Ownership

Top 5 Prefectures in EV Ownership (Proportionally)

As of Sept. 2012

	Ratio to Total Vehicle Ownership (per 10000 vehicles)	Ratio to Population (per 10000 people)	Ratio to Households (per 10000 Households)
No. 1	Kanagawa (9.4)	Saga (4.6)	Saga (12.4)
No. 2	Saga (6.1)	Okayama (3.9)	Okayama (9.6)
No. 3	Tokyo (6.0)	Kanagawa (3.8)	Gunma (8.9)
No. 4	Okayama (5.2)	Gunma (3.5)	Kanagawa (8.6)
No. 5	Kyoto (5.0)	Shizuoka (3.0)	Yamagata (8.3)

1. Kanagawa 3,425 vehicles; Saga 391 vehicles; Tokyo 2,371 vehicles; Okayama 760 vehicles; Kyoto 624 vehicles; Gunma 696 vehicles; Shizuoka 1,134 vehicles, Yamagata 331 vehicles
2. PHV not included
3. Researched by Saga Prefecture



Saga Prefecture EV/PHV Timeline

November, 2009: EV (i-MiEV) is adopted for official use by the prefecture

March, 2010: PHV adopted for official use by the prefecture

December, 2010: EV/PHV Town Program adopted

February, 2011: 10 EVs (7 LEAFs, 3 i-MiEVs) purchased for official use

March, 2011: Quick Charge (QC) stations installed at 7 FamilyMart locations

April, 2011: Cooperative agreement signed between Saga Prefecture/Nissan Motor Co./FamilyMart

May, 2011: Saga Prefecture EV/PHV Town logo produced

July, 2011: Budget for EV/PHV Town Program approved by the Prefectural Assembly

August, 2011: Subsidies for the purchase of EV/PHV, QC stations established

November, 2011: Saga Prefecture Comprehensive Plan 2011 adopted; EV/PHV ownership quota set at 1000 vehicles (2014)

October, 2011: 10,000-person test drive event conducted

October, 2011: Lightweight truck EV conversion

February, 2012: Weekend rental service, EV/PHV support shops, citizenship supporters project

March, 2012: QC stations installed at 4 main train stations

EV/PHV Ownership Quota

By 2014: 1,000 vehicles



Manifesto (April, 2011)

We will strive for the proliferation of electronic vehicles (EV) and fuel cell vehicles (FCV) by bringing together related industries. Alongside household solar power generation, we will work towards the goal of becoming number one in the country for EV ownership.

<Saga Prefecture Comprehensive Plan 2011 Priority Item>

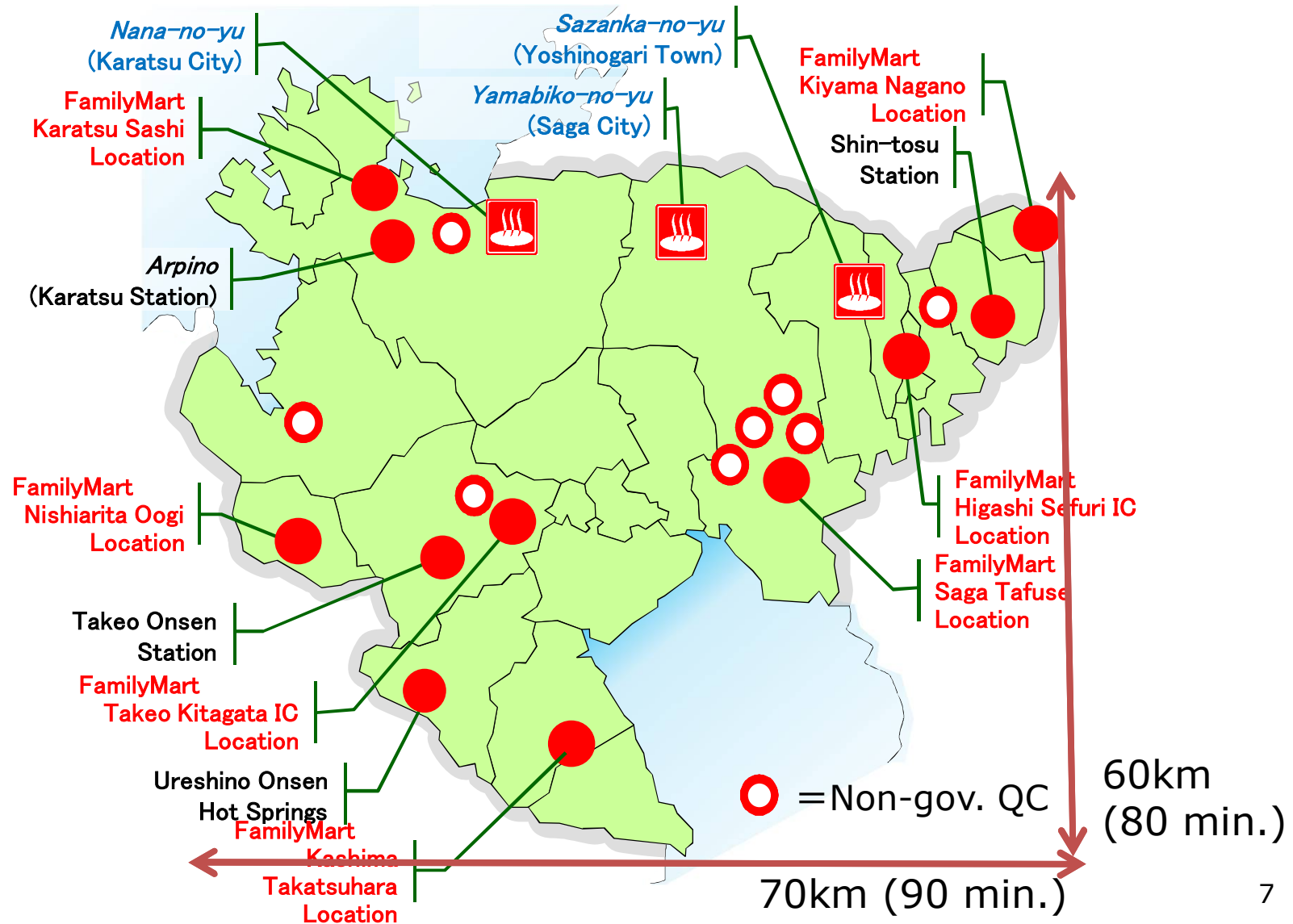
Promotion of electronic vehicle (EV) and fuel cell vehicle (FCV) ownership through effective collaboration with related industries



24-hour EV Ubiquitous Network

About the "24-hour EV Ubiquitous Network"

In Saga Prefecture, we aim to promote the ownership of EV by installing charging stations throughout the prefecture. The "24-hour EV Ubiquitous Network" made up of charging stations that may be used "anytime, anywhere, by anyone" will allow drivers to travel without worry of running out of battery.





Cooperative Agreement Signed between Saga Prefecture, Nissan Motor Co., Ltd. and FamilyMart Co. Ltd.

Date: April 20th, 2011

Place: Saga Castle History Museum



1. Items related to the promotion of a “24-hour EV Ubiquitous Network” (Creation of an environment in which anyone can charge anytime, anywhere.)
2. Other items which relate to the effective promotion of EV/PHV ownership and use in Saga Prefecture

Saga Pref.	FamilyMart	Nissan Motor Co.
<ul style="list-style-type: none">◆ Installation of Quick Charge (QC) stations◆ Management support	<ul style="list-style-type: none">◆ Consent to the installation of Quick Charge (QC) stations on store premises free of charge◆ Cooperation in QC operations◆ Manage payment operations◆ Regular management of QC and provision of verified data on changes in the number of users, etc.	<ul style="list-style-type: none">◆ Supply QC at low cost◆ Provision of information and advice on installation and maintenance of QC◆ Consider operation tests of payment systems, availability systems, reservation systems, etc.



Projects Related to EV/PHV

Saga Prefecture's EV/PHV Town Program Based on a "24-hour EV Ubiquitous Network"

We will promote ownership of EV/PHV by installing charging stations throughout the prefecture. With the "24-hour EV Ubiquitous Network", charging stations that may be used "anytime (24-hrs), anywhere, by anyone" will allow drivers to travel without worry of running out of battery.

Installation of a "24-hour EV Ubiquitous Network" (QC Infrastructure)

- Installation of QC stations at 7 FamilyMart locations in the prefecture and 4 main stations
- Offer subsidies for the installation of QC/NC that anyone may use
- Call for "EV/PHV Support Shops" equipped with charging stations

Subsidies for General Consumers

- Alongside providing a convenient driving environment, offer subsidies for general consumers such as taxi and rental car businesses in order to establish initial demand

10,000-person Test Drive Event

- Collaborate with CSOs (Civil Society Organizations) to hold EV/PHV test drive events
- Utilize electronic vehicles owned by the prefecture to operate a weekend car-rental service
- Recruit "Citizen Supporters" who will help advertise the benefits of EV/PHV

Conversion of Lightweight Trucks to EV

- Explore the potentials of EV/PHV-related businesses and industries in the prefecture by working on the conversion of lightweight trucks, a necessity in rural areas, to EV

Taking the Lead at the Prefectural, City and Town Levels

- Purchase 12 EV/PHV for official use by the prefecture, take the lead at city/town levels



Using Quick Charge (QC) Stations Installed by the Prefecture

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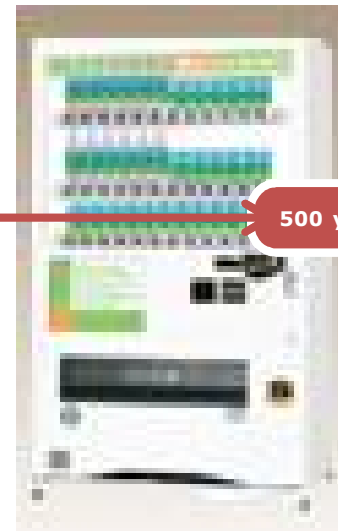
FamilyMart

- FamilyMart – 7 locations
- Pay 500 yen at the cash register, receive a key to the QC, and return the key after charging is done

- 3 Locations: Karatsu Station *Arpino*, Takeo Onsen Station, Ureshino Onsen Hot Springs
- Quick Charge (QC) stations installed by Saga Prefecture will be synchronized with vending machines (500 yen/1 time use)
*Currently in the works



Quick Charge (QC)







Vending Machine

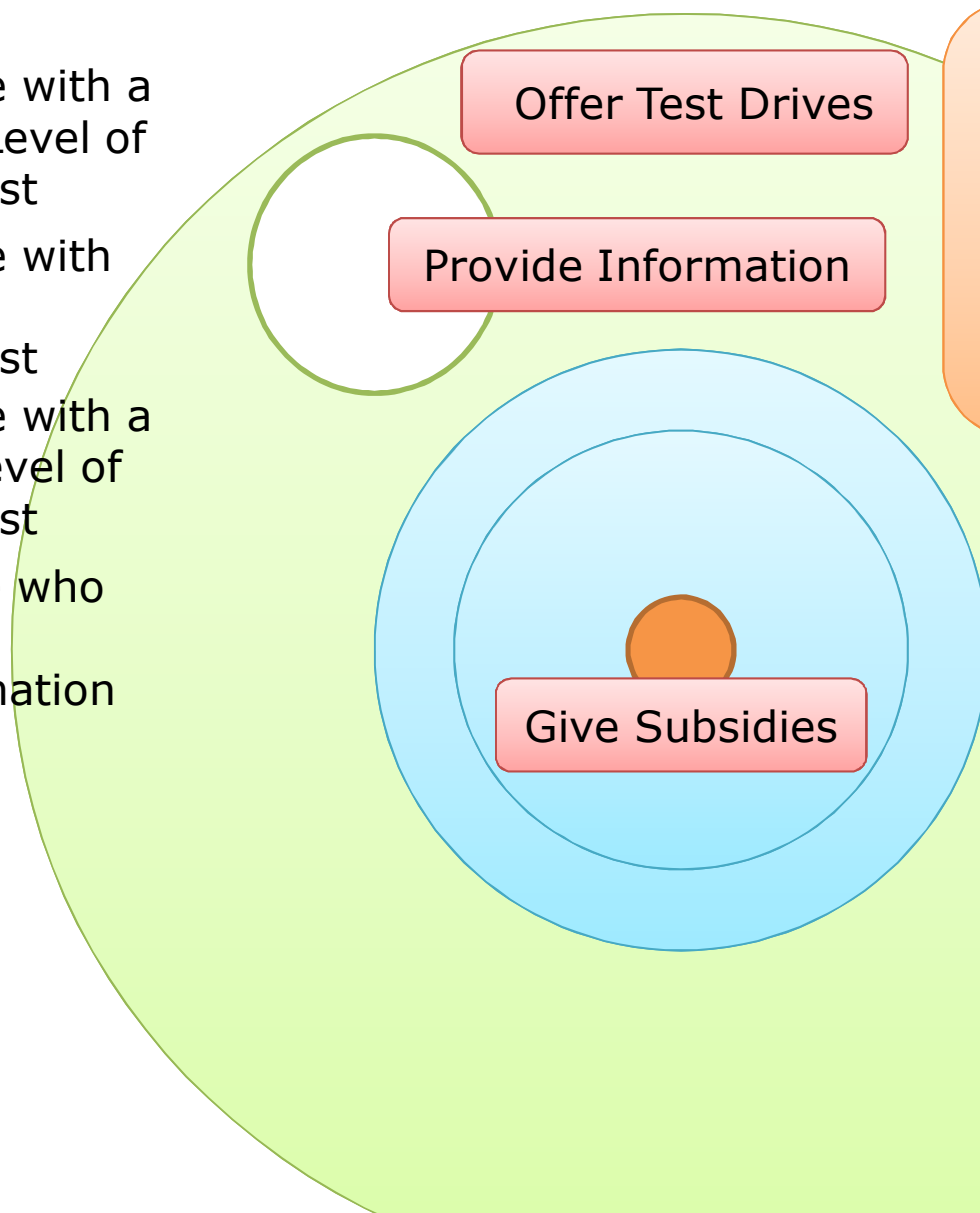
One button on a vending machine for beverages will be set aside for using the QC to charge (500 yen). When the button is pressed, you will be able to use the QC station.

*Until an autonomous charging business is established, electricity costs must be kept low.



For the Promotion of EV/PHV Ownership

-  People with a High Level of Interest
-  People with Some Interest
-  People with a Low level of Interest
-  People who Lack Information



To promote EV/PHV ownership, the lowering of costs and the establishment of a charging infrastructure are key. Different models must be introduced so that citizens may recognize EV/PHV as "regular cars".



i-MiEV (EV)
(Mitsubishi)



LEAF (EV)
(Nissan)



PRIUS PHV
(Toyota)



OUTLANDER
PHEV
(Mitsubishi)

プラグインハイブリッド
EVシステム

Provide a convenient charging environment ⇒ Install and support QC/NC

For a future in which
you could **cross Japan**
in an EV...

Thank you for
listening.



Special thanks:
Ministry of Trade,
Industry and Economy
(METI)
Nissan Motor Co., Ltd.
FamilyMart Co., Ltd.