

Ebina City (Kanagawa Prefecture, Japan)

Eco Park and Ride Social Experiment

With a population of 117,000, Ebina City in Kanagawa Prefecture is a municipality with the strong personality of a commuter town for those working in the prefecture and the Metropolitan area.

The city is planning to implement a social experiment to build a new park and ride system by sharing low emission vehicles that are friendly to the environment, during the three months between January to March of the year 2000.

From October 1st to November 1st, of 1999 commuter monitors for the experiment were advertised for.

The municipal government and civic monitors will share a small low emission vehicle, which will be used by citizens for commuting during the morning and evening rush hours, and by the municipal government for official use in the daytime. It will be the first time in Japan for a system in which organizations (City Hall) and citizens (monitors) share a car to be experimented.

Ebina City, Kanagawa Prefecture, and the Ministry of Construction established the Eco Park and Ride Research Committee and reviewed the system several times.

The Eco Park and Ride Research Committee

This committee with Dr. Toshihiko Nakamura, an assistant professor at Yokohama National University, as its chairperson undertakes investigations and assessments for the introduction of Eco Park and Ride. It is composed of people of academic standing and the related administrative organs (Ebina City, Kanagawa Prefecture, and the Ministry of Construction*).

*This social experiment was campaigned for nationwide as a road-related project undertaken by the Ministry of Construction, as a social experiment that will “precede the introduction of a new measure that has a large possibility of having great social influence implemented in a limited area for a limited period of time to collect data to serve as the basis for the decision of whether or not to actually introduce the measure“. In response to this, there were thirteen applications from the entire country, six of which including Ebina City’s were accepted.

The background of the promotion of park and ride in local governments in Japan shall be introduced before going into the details of Ebina City’s Eco Park and Ride Social Experiment.

Park and Ride and Measures Taken in Japanese Local Government

In Japan, due to the sudden advance in motorization from the late 1960s, the number of cars owned has grown rapidly during the past 30 years. With this, vehicle traffic has increased explosively and many problems, such as air pollution, car accidents, and traffic jams have occurred in result especially in urban areas.

Under these circumstances Traffic Demands Management Policy has become the main issue for local governments.

This can be regarded as the first step to the formation of a mature society that focuses not only on easing traffic congestion, but also on environmental problems.

Methods to control vehicle traffic can largely be divided into direct control, indirect control which involves making changes in traffic composition, and a combination of the former two.

In order to control vehicle traffic, trespassing on residential is being limited and driving into urban areas is being controlled. Another method taken is to establish Self-Refrain from Driving Days according to days and number plates.

Indirect ways attracting attention include park and ride which guides people to switch to public transportation, promotion of off-peak commuting, and the HOV privilege measures such as the establishment of lanes for the priority use of cars carrying more than one passenger.

It has been a long time since these measures by local governments or at the local level were undertaken in places all over the world. Japan is unfortunately very much behind compared with European nations like Germany and the United Kingdom, which are advanced in this area.

However, in Japan some local governments have been making various attempts including experiments.

Ebina Eco Park and Ride Social Experiment

The experiment to be undertaken by Ebina City will be carried out with the background referred to above. As mentioned before, this will be the first system in Japan in which an organization (City Hall) and citizens(monitors) will share vehicles.

It is an important experiment with plans of inviting surrounding cities and business

sectors to participate from the proceeding year, thus expanding the experiment in preparation for the actual implementation.

The details of the experiment are explained below.

The outline of the experiment

- The experiment implementing body: Ebina City, Kanagawa Prefecture
- Period of time: mid January, 2000 - March 31, 2000
- The number of cars used in experiment: 15
(small-sized electric cars: Nissan Hyper Mini)
- Number of monitors : 10 people

About the monitors

about volunteering

- Qualification: resident of Ebina City
car commuter
citizen who can commute by taking a car from his house to
Ebina station where he will take the train.

- Application period: October 1st-November 1st 1999
- Way to apply: by special application form
- Contact: The officers in charge of Eco Park and Ride Experiment, City Planning Section, City Planning Department, Ebina City

○ **Obligations and procedures to the selected monitors**

- To attend prior explanation meeting (once or twice)
At the meeting explanation on the usage, rental and return of the cars are given
- During the monitoring period, the cars are to be used, to and from their houses to Ebina Station, for commuting purposes on weekdays. The cars are to be taken home at night to recharge the battery with a special battery charger.
- A daily report on the vehicle use status should be submitted regarding time of departure, amount of time ridden, distance ridden (everyday during the monitoring period)
- To give answers to the questionnaire on vehicle use (about three times in total)
- To attend the monitor conferences
Impressions and problems concerning the use of the cars will be discussed.
Required time: One to two hours, The number of conferences to be held: two or three times (schedule)

○ **Privileges during the monitoring period**

- cars can be used free of charge
- no parking fee for monitoring cars using the Ebina City Central Park Underground Parking Lot
- the cars may be used for family affairs during the weekends and national holidays
- the monitors will not be charged the battery charging costs

(the expenses for installing battery chargers in homes and for charging the batteries will be paid by the Eco Park and Ride Research Committee)

○ about the vehicles

(chosen by the Eco Park and Ride Research Committee)

- Small-sized electric car : Nissan Hyper Mini
- Maximum speed :100 km/h
- Distance covered on full battery: 115km
- Passenger Capacity: 2
- Time required for battery charge: approximately 4 hours with special battery charger (AC200V) is efficient enough to cover the distance between Ebina Station and locations within the city.

The city stopped accepting on November 1st, 1999. There were fifty applicants for ten positions.

Expected Effects

Besides the resolution of traffic jams around each station and the effective use of land surrounding the stations if the measure is actually introduced in the Ebina City and its surrounding local governments, the following two effects from an environmental viewpoint are expected.

Firstly, with the promotion and penetration of low emission vehicles, it will lead to the promotion of global warming measures. Secondly, it will lead to the promotion of environmental measures with the effective use of resources through sharing cars. From the viewpoint of the promotion of low emission vehicles, Ebina City has undergone steps as mentioned in the next page since 1993, preceding the Eco Park and Ride Social Experiment.

Ebina City's present experiment is still at the stage of a monitoring experiment and is small in scale. However, obtaining precious data for the actual implementation of experiment with increased civic participation is expected.

<The promotion of low emission vehicles in Ebina City>

“Measures taken by Ebina City to Promote the penetration of Low Emission Vehicles” Ebina City, chosen as one of the six model cities for the Environment Agency “ Low Emission Vehicles Model City Project”, introduced five electric cars(three light vans, two small vans) and three methanol trucks (two catering trucks, one garbage truck) . During the three years up to September, 1996, local businesses monitored the practicability and the economic efficiency of low emission vehicles. In this campaign, two methanol stations were built in the city based on the “Eco Station 2000 Plan” carried out by the Ministry of International Trade.

Even after the same project was completed, the city purchased some of the monitor cars, and now owns and uses one electric car (light van) , two methanol trucks (one catering truck, one garbage truck) , and one methanol passenger car and continues to promote the penetration of and education on low-emission vehicles.

Influenced by the opening of an Eco-station for natural gas in a neighboring city, Atsugi City in October, 1999, Ebina City is also planning to introduce two natural gas vehicles (one garbage truck, one pollution patrol car) .

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