

Environment and Safety

Honda proactively employs advanced environmental and safety technologies, reflecting its commitment not only to comply with regulations, but also to pass on the “joy of mobility” to future generations.



FCX Concept Fuel Cell Vehicle
In 2008, we plan to begin limited sales based on this concept model in Japan and the United States.

Environmental Initiatives

From its earliest days, Honda has developed environmental initiatives to meet the challenges of each era. In 1992, Honda established the “Honda Environment Statement,” which clarifies our position on environmental conservation. Since then, we have carried out our environmental activities in line with this statement.




In fiscal 2006, Honda achieved all of its own fiscal 2006 environmental impact reduction targets. In fiscal 2007, we took the initiative in announcing our new global CO₂ reduction targets for products and production activities for 2010. This stringent target requires us to reduce CO₂ emissions by 10% for products and production activities by 2010 compared to fiscal 2000. We have recently set and announced new environmental impact reduction targets for 2010 within Japan. These achievements and targets indicate our determination to further advance our efforts to address environmental issues and be at the forefront of the times in the area of the environment.

Working to Achieve 2010 Global CO₂ Reduction Targets for Products and Production Activities

Honda's goal is to manufacture products that produce

the lowest level of CO₂ emissions at plants that also emit the least CO₂. We have established targets to reduce CO₂ emissions from our products and production activities worldwide.

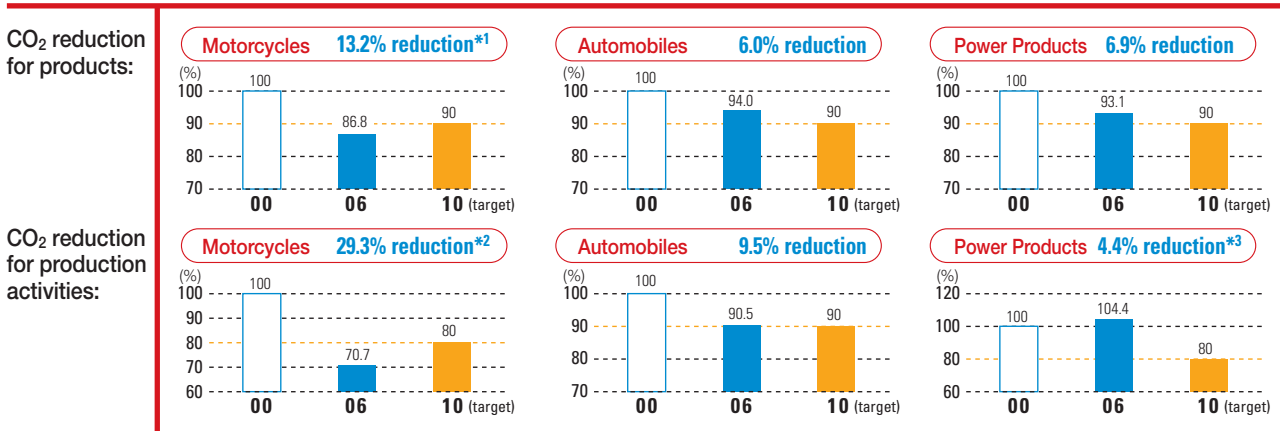
2010 CO₂ Emissions Targets for Products and Production Activities Worldwide (compared to fiscal 2000)

	Motorcycles 	Automobiles 	Power Products 
CO₂ reduction target for products Average CO ₂ emission from Honda's products worldwide	10% reduction (g/km)	10% reduction (g/km)	10% reduction (kg/hour of operation)
CO₂ reduction target for production activities Average CO ₂ emission from Honda's manufacturing process per unit	20% reduction (per unit produced)	10% reduction (per unit produced)	20% reduction (per unit produced)

Scope of Data Collection

<CO ₂ reduction target for Motorcycles>	For more than 90% of products sold worldwide, including Japan, North America, Europe, Thailand, India, China, Indonesia, Vietnam, Brazil, the Philippines, Malaysia and Pakistan.
<CO ₂ reduction target for Automobiles>	For more than 90% of products sold worldwide, including Japan, North America, Europe, Asia, the Pacific, China and Latin America.
<CO ₂ reduction target for Power Products>	Including all products sold worldwide except outboard.
<CO ₂ reduction target for production activities>	In addition to Honda Motor Co., Ltd., all Honda manufacturing plants and major parts suppliers in Japan and worldwide are subject to this target. It includes almost 100% of Honda's consolidated subsidiaries, affiliated companies, and manufacturing plants of major affiliated companies.

Progress of CO₂ Reduction by Fiscal 2007 for Products and Production Activities



Major activities:

To meet its CO₂ reduction targets for (calendar year) 2010, Honda intends to invest worldwide in technologies to improve fuel efficiency and expand the application of its programmed fuel injection (FI) systems.

- Fuel injection: Install in the majority of motorcycle models released worldwide by the end of 2010
- Variable Cylinder Management system: Improve fuel efficiency by 30% or more, compared with the 2005 level.

Honda is implementing a variety of technologies to improve fuel efficiency and reduce CO₂ emissions.

- Hybrid vehicles: Honda is developing a dedicated hybrid vehicle to advance global hybrid development. We plan to introduce this hybrid vehicle in 2009.
- Diesel vehicles: Honda is developing a new generation of clean diesel engines, which we plan to install in vehicles for the North American market within the next two years.
- Gasoline vehicles: Honda plans to further improve fuel efficiency through advanced engine design.
- Fuel cell vehicles: In 2008, Honda plans to begin limited sales in Japan and the United States of a next-generation fuel cell vehicle based on the *FCX Concept*.

Honda is committed to the effort to achieve cleaner emissions and improvement in fuel efficiency ahead of the regulations of each country and region.

- Next-generation general-purpose engines: Improve fuel efficiency by approximately 20% compared with other conventional engines
- Compact household cogeneration system: A reduction of approximately 30% in CO₂ emissions is expected. Together with Climate Energy, LLC, Honda began sales of this system in March 2006.

*1: We have already reduced emissions by 13.2% compared to fiscal 2001. We will continue to strive to reduce CO₂ emissions further with the CO₂ reduction target of 10% by 2010 unchanged.

*2: We have already achieved the target. However, we see production increasing in regions with a high CO₂ emissions coefficient. We will hold our CO₂ reduction target unchanged and will continue to strive to further reduce CO₂ emissions toward 2010.

*3: The basic unit of production for power products increased due to products that are higher-value-added as well as larger.

Honda's Advanced Environmental Initiatives

Honda's mission is to operate manufacturing facilities throughout the world that place as little burden on the environment as possible as they manufacture products with superior environmental performance. Following is a look at the environmental performance of automobiles in our major regions. Through our unique technologies, Honda introduces products that demonstrate environmental performance that exceeds the regulations established in each region for the reduction of emissions and improvement of fuel efficiency. It is our responsibility to contribute to the achievement of a sustainable mobility society by meeting people's mobility needs while minimizing the environmental impacts caused by our products. In the product domain, we are implementing measures based on the following three approaches.

1. Further improvements in the reduction of emissions from internal combustion engines and improvement of fuel efficiency
2. Evolution of hybrid vehicles
3. Promotion of alternative fuel-powered vehicles

1. Further Improvements in the Reduction of Emissions from Internal Combustion Engines and Improvement of Fuel Efficiency

• North America (the United States)

In the United States, Honda continues to lead the automotive industry in corporate average fuel economy for cars and trucks combined. Moreover, in terms of cleaner emissions all Honda and Acura brand vehicles meet or exceed the U.S. EPA*1's stringent TierII Bin5*2 exhaust gas standard for clean emissions.

• Europe

In Europe, since the introduction of the 2001 *Civic* (with some local variations) Honda has promoted reductions in exhaust emissions by ensuring that all models meet the Euro4 emissions standard when they undergo full model changes. By increasing the fuel economy of existing models and introducing hybrid and diesel vehicles, we are steadily reducing vehicle CO₂ emissions, particularly for diesel vehicles. Since the *Accord* equipped with a Honda-developed 2.2-liter engine went on sale in December 2003, we

have equipped the *FR-V* (called *Edix* in Japan) with this engine. In January 2006, we also began offering the new *Civic* with this engine. In January 2007, we released a new *CR-V* equipped with a diesel particulate filter (DPF)*3 to achieve higher fuel efficiency and cleaner exhaust.

• Asia

In Thailand, Honda's locally produced *Jazz* (called *Fit* in Japan) has already achieved the Euro4 emissions standard, which is to be required in the future. Since the introduction of the *Jazz*, all models introduced in Thailand have achieved the Euro4 emissions standard. The new *Civic*, introduced in 2005, and the new *CR-V*, introduced in 2006, are also made in Thailand and are compliant with the Euro4*4 emissions standard.

• China

Honda has attained Europe's Euro4*4 emissions standards ahead of Chinese regulations for all models introduced in the country. In July 2007, the Company plans to release the *Civic Hybrid*, a vehicle with even higher fuel efficiency than the *City* (called *Fit ARIA* in Japan) and the *Civic*, which are already at the top of their class in this area.

2. Evolution of Hybrid Vehicles

In November 1999, Honda introduced the *Insight*, the first hybrid vehicle equipped with the Honda integrated motor assist (IMA*5) system, achieving the world's highest fuel economy among mass-produced gasoline-powered vehicles. In December 2001, we introduced the *Civic Hybrid*, and in December 2004, we began sales in North America of the *Accord Hybrid*, adopting Honda's Variable Cylinder Management system for its V6 engine. Further, in November 2005 we began sales of an all-new *Civic Hybrid*, equipped with the new 3-Stage *i-VTEC* + IMA Honda Hybrid System. In the future, Honda is developing a new dedicated hybrid vehicle suitable for family use in major automobile markets in the world. With this new dedicated hybrid vehicle, Honda will achieve further advancement of fuel efficient technologies and a reduction in cost. We plan to contribute to the reduction of CO₂ emissions by delivering hybrid vehicles that are priced affordably enough to be practical for more customers throughout the world.

3. Promotion of Alternative Fuel-Powered Vehicles

- North America (the United States)

In 2005, we were the first company in the world to lease a fuel cell vehicle to an individual owner. Honda's track record now extends to 23 FCX fuel cell vehicles leased in North America (a total of 34 leases of the FCX in Japan and the United States). In 2007, we also delivered one of these vehicles to American actress Q'orianka Kilcher. In Torrance, California, we are converting natural gas to hydrogen and using the hydrogen to power fuel cell vehicles. We are in the process of testing hydrogen fueling stations, such as the *Home Energy Station*, which also provides hydrogen to generate heat and electric power in homes. We have substantially enhanced the power and highway fuel economy of the third generation natural gas-powered *Civic GX*, following the first-generation in 1998 and the second-generation in 2001. As these vehicles have advanced, we have offered affordable a home refueling appliance for natural gas-powered vehicles. Honda is thus playing a leading role in promoting alternative fuel-powered vehicles.

- Other Regions (Brazil)

In Brazil, where ethanol produced from sugar cane is commonly used as fuel, since the mid-1980s Honda has offered motorcycles and automobiles that run on a mixture of ethanol and gasoline. The ethanol ratio of fuels in Brazil is increasing, and a 100% ethanol fuel—E100—is now available. To meet this challenge, Honda introduced flex-fuel models of the *Civic* in November 2006 and the *Fit* in December, both of which can operate on any gasoline-ethanol mixture.

- Other Product Deployment

Since Honda released its home-use cogeneration unit in Japan in March 2003, total unit sales through gas companies have reached 45,000. In March 2007, the Company launched *Freewatt*, a compact home-use cogeneration system developed in cooperation with Climate Energy, LLC, in North America. We began sales in the cold northeastern United States and aim to expand into other cold regions of the country.

*1: EPA
The U.S. Environmental Protection Agency

*2: TierII Bin5
This standard for exhaust emissions was established in the United States by the Environmental Protection Agency based on the U.S. Clean Air Act and went into effect in 2004. Regulating the value of NOx for emissions category BIN5: 0.07g/mile. To meet TierII Bin5 standards, we have cut emissions by 75% or more from the previous levels.

*3: Diesel particulate filter (DPF)
This ceramic filter attracts and strains out black smoke and other particulate matter from the exhaust of diesel vehicles, cleaning their emissions.

*4: Euro4
Emissions regulations implemented in Europe from 2005. Although China and many Asian countries have introduced European regulations, at present they only require compliance with Euro3 standards. Euro4 is a stringent level that Thailand is considering adopting from 2008.

*5: Honda IMA (Integrated Motor Assist)
A new hybrid system developed independently by Honda. While the engine is the primary power source, an electric motor will assist during acceleration. Due to a design that is more simple than a conventional hybrid system, a structure that is both lighter weight and more compact in size was achieved. Using energy efficiently, this new hybrid system achieves high fuel efficiency during both city and highway driving.



Freewatt, manufactured by Climate Energy, LLC (Honda's cogeneration unit at left)

Safety Initiatives

As a manufacturer of mobility products, Honda is committed to making products that provide high levels of safety, not only for drivers and passengers but also for pedestrians. At the same time, we engage in activities that promote safe driving and actively work to solve issues related to traffic systems.

To create a mobility society with fewer traffic accidents and greater comfort, Honda is pursuing safety for all people through technology and education based on the idea of living in safety and harmony.

Safety Technologies

Honda will develop safety technologies to enhance accident prediction and prevention, technologies to help reduce injuries to passengers and pedestrians from car accidents, and technologies for enhancing compatibility, while expanding our lineup of products incorporating such technologies. The Zest mini-car, introduced in March 2006, was the first mini-car to achieve the maximum rating of six stars in the 2006 New Car Assessment*1 collision safety tests for overall collision safety performance in both the driver's seat and the front passenger's seat. Honda has long advanced real-world safety research that even takes pedestrians into account. The Company employs the world's first indoor omnidirectional collision test facility to more accurately recreate actual collision conditions. Honda continues to pursue its own safety goals above and beyond regulatory standards.



Omnidirectional collision testing
Source: Japan's National Agency for Automotive Safety & Victims' Aid

Promoting Safer Driving

Honda intends to enhance its contribution to traffic safety in mobility societies, including Asian countries. Honda also intends to remain active in a variety of traffic safety programs, including advanced driving and motorcycle training provided by local dealerships.

Our activities to promote safer driving include reflecting the characteristics of traffic information and

licensing systems in Japan. These had been extended to 24 other countries as of March 31, 2007.

For motorcycles, in Thailand and Indonesia we have introduced a new training device for safe driving called *Riding Trainer*, and we held seminars at dealerships to provide safety advice. In Turkey, we worked to develop motorcycle safety promotion activities, such as by expanding course offerings and class days for our popular workshops held in a traffic education center.

For automobiles, in April 2006 we began developing a Russian version of the Rainbow Dealer System, which certifies dealerships that satisfy Honda's safety criteria. In Vietnam, we have been particularly focused on road safety activities, educating dealership sales staff as role models for safe driving.

By listening closely to opinions from our customers and society at large, Honda is seeking to further extend its safety developments in the future.



At the Bukit Batok Driving Centre in Singapore, we have introduced a children's traffic safety education program developed in Japan and opened a motorcycle school for children and their parents.

*1: The New Car Assessment is an automotive safety assessment carried out by the Ministry of Land, Infrastructure and Transportation and the National Agency for Automotive Safety & Victims' Aid. The overall evaluation of collision safety performance is a battery of three tests: a full-wrap frontal collision test, an offset frontal collision test and a side collision test. Vehicles are assessed by point values calculated for each test method employed, the points for the three tests are added together, and the sum is expressed as a graded rating from one up to a maximum of six stars.