



Honda leases FCX fuel cell vehicle to world's first individual customer (the Spallinos), June 2005

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.

### Environmental Initiatives

From the earliest days of the company, Honda has worked assiduously to address the environmental challenges of each era. As the environmental preservation movement gained momentum, and particularly in the 1990s when global concerns about the environment were accelerating, Honda stepped up its implementation of environmental structures and systems. In 1992, we established the “Honda Environment Statement,” which clarifies our position on environmental conservation, and we have increased our environmental activities since that time.

Based on this statement, in 1999 Honda announced for fiscal 2006, the year ended in March 2006, targets for the improvement of cleaner exhaust gas and higher fuel economy. During the fiscal year, we continued working toward these objectives, and as of March 2006, we had achieved all of our targets on schedule.

Seeking to address the global warming issue, Honda is the first automaker in the world to announce for fiscal 2011, the year ending in March 2011, global CO<sub>2</sub> reduction targets for its products and production activities.

In the future as well, Honda will continue to provide our customers with products that employ advanced environmental technologies, share joy with our customers, consider our own impact on the global environment and make every effort to address these challenges. Through our contact with more than 20 million customers worldwide, we are determined to take on an even greater level of responsibility for the global environment.

## Environment and Safety

### ■ Progress toward Fiscal 2006 Targets for the Improvement of Cleaner Exhaust Gas and Higher Fuel Economy

#### Motorcycles

	Target	Progress
Cleaner Exhaust Gas	To reduce total emissions of hydrocarbon (HC) (total for Japan, the United States, Europe and Thailand) to approximately one-third for new vehicles (compared with fiscal 1996 level)	Target has been achieved consistently since fiscal 2001. In fiscal 2006, total HC emissions (total for Japan, the United States, Europe and Thailand) were reduced to 23.1% (less than one-fourth). (compared with fiscal 1996 level)
Fuel Economy Improvement	To improve average fuel economy (total average for Japan, the United States, Europe and Thailand) by approximately 30% (compared with fiscal 1996 level)	Target has been achieved consistently since fiscal 2004. In fiscal 2006, average fuel economy (total average for Japan, the United States, Europe and Thailand) was improved by 33.1%. (compared with fiscal 1996 level)

#### Automobiles

	Target	Progress
Cleaner Exhaust Gas	To reduce total emissions of HC and nitrogen oxide (NOx) by approximately 75% for new vehicles in Japan. (compared with fiscal 1996 level)	Target has been achieved consistently since fiscal 2004. Total HC emission level in fiscal 2006: Reduced approximately 88.1% (compared with fiscal 1996 level). Total NOx emission level in fiscal 2006: Reduced approximately 88.1%. (compared with fiscal 1996 level)
Fuel Economy Improvement	To achieve the 2010 fuel efficiency standards of Japan for all weight categories To improve the average fuel economy in Japan for gasoline-powered passenger vehicles by approximately 25%. (compared with fiscal 1996 level)	The 2010 fuel efficiency standards of Japan were attained in all weight categories. In fiscal 2006, the average fuel economy in Japan was improved by approximately 31.1%. (compared with fiscal 1996 level)

#### Power Products

	Target	Progress
Cleaner Exhaust Gas	To reduce average emissions (average emission levels worldwide) of HC and NOx by approximately 30% for new products. (compared with fiscal 1996 level)	Target has been achieved consistently since fiscal 2002. In fiscal 2006, emissions were reduced by approximately 39%. (compared with fiscal 1996 level)
Fuel Economy Improvement	To improve worldwide average fuel economy by approximately 30%. (compared with fiscal 1996 level)	In fiscal 2006, worldwide average fuel economy was improved by approximately 31%. (compared with fiscal 1996 level)

### ■ Working to Achieve Fiscal 2011 Global CO<sub>2</sub> Reduction Targets for Its Products and Production Activities

Honda's goal is to become a company that manufactures products that produce the lowest level of CO<sub>2</sub> emissions at plants that also create the lowest CO<sub>2</sub> emissions. We have established new targets to reduce CO<sub>2</sub> emissions from our products and production activities worldwide.

CO<sub>2</sub> reduction target for products: Average level of CO<sub>2</sub> emitted by Honda products worldwide  
CO<sub>2</sub> reduction target for production activities: Average amount of CO<sub>2</sub> emitted per unit produced

#### Motorcycles

By the end of fiscal 2011, we will expand the use of programmed fuel injection (PGM-FI) systems, which improve fuel efficiency, and introduce new engine technologies, such as super-low friction engines and the Variable Cylinder Management system.

- PGM-FI: install on the majority of models for sale worldwide
- Super-low friction engine: improve fuel efficiency by approximately 13%, compared with the current level
- Variable Cylinder Management system: improve fuel efficiency by approximately 30%, compared with the current level

	Target
CO <sub>2</sub> reduction target for products	Reduce CO <sub>2</sub> emissions by 10% (g/km) compared to the level of fiscal 2001, 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 <sub>2</sub> reduction target for production activities	Reduce CO <sub>2</sub> emissions by 20% (per unit produced), compared to the level of fiscal 2001, including nearly 100% of Honda motorcycle assembly plants in Japan and other countries.

## Environment and Safety

### Automobiles

Hybrid technology is an important component of our efforts to reduce CO<sub>2</sub> emissions. In the future, Honda also will introduce advanced gasoline and clean diesel engines. By making the most of environmental technologies and employing them appropriately to maximize their effects, our goal is to accelerate the global reduction of CO<sub>2</sub> emissions.

- Gasoline vehicles: improve fuel efficiency, through such technologies as advanced VTEC and the Variable Cylinder Management system.
- Hybrid vehicles: Honda is developing a new dedicated hybrid vehicle that will achieve further advancement of fuel efficiency with a reduction in cost. We plan to introduce this hybrid vehicle in 2009.
- Diesel vehicles: Honda is developing a new super-clean 4-cylinder diesel engine, which Honda plans to introduce to market within the next three years.
- Fuel cell vehicles: Honda is stepping up the development of a fuel cell vehicle featuring the ultimate in clean performance, emitting no CO<sub>2</sub> or other harmful substances during operation. Honda plans to begin sales of this new fuel cell vehicle within three years.

	Target
CO <sub>2</sub> reduction target for products	Reduce CO <sub>2</sub> emissions by 10% (g/km) compared to the level of fiscal 2001, for more than 90% of products sold worldwide, including Japan, North America, Europe, Asia, the Pacific, China, and Central & South America.
CO <sub>2</sub> reduction target for production activities	Reduce CO <sub>2</sub> emissions by 10% (per unit produced), compared to the level of fiscal 2001, including nearly 100% of Honda automobile assembly plants in Japan and other countries.

### Power Products

We plan to reduce CO<sub>2</sub> emissions by improving the combustion characteristics of all of our engines. We are the first automaker to begin the mass production of solar cells, contributing to the reduction of CO<sub>2</sub> emissions by developing the manufacture and sale of clean energy sources that do not use fossil fuels.

	Target
CO <sub>2</sub> reduction target for products	Reduce CO <sub>2</sub> emissions by 10% (kg/hour of operation) compared to the level of fiscal 2001, including all products sold worldwide except outboard.
CO <sub>2</sub> reduction target for production activities	Reduce CO <sub>2</sub> emissions by 20% (per unit produced), compared to the level of fiscal 2001, including nearly 100% of Honda power product assembly plants in Japan and other countries.

### ■ Honda's Advanced Environmental Initiatives Overseas

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. We are willing 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

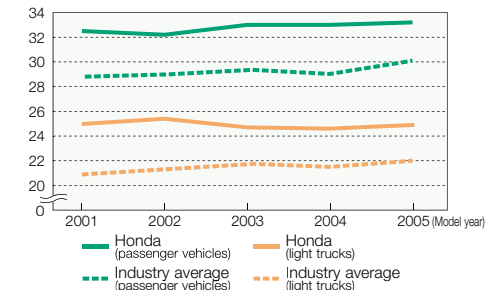
#### 1. Further Improvements in the Reduction of Emissions from Internal Combustion Engines and Improvement of Fuel Efficiency

##### ● North America (the United States)

In the United States, Honda always provides the market with low emission



Corporate Average Fuel Economy (the United States)  
(miles/gallon)



Note: Corporate Average Fuel Economy (CAFE) figures for 2005 include some vehicles that are reported at mid-year, so final numbers may differ slightly.

## Environment and Safety

vehicles that perform more highly than required by emissions regulations. We have introduced the first gasoline-powered low emission vehicles (LEVs), ultra low emission vehicles (ULEVs) and super ultra low emission vehicles (SULEVs) in the market. At present, nearly all Honda and Acura branded vehicles meet or exceed the Tier2 BIN5\*<sup>1</sup> exhaust gas standard (NOx: 0.07 g/mile).

### ● Europe

In Europe, since the introduction of the 2001 *Civic* (with some local variations) Honda has ensured that all models meet the Euro4\*<sup>2</sup> emission standard when they undergo full model changes. By introducing fuel-efficient, hybrid and diesel models, we are steadily reducing CO<sub>2</sub> emissions. This is the case for diesel vehicles in particular. Since the *Accord* equipped with a Honda-developed 2.2L diesel engine went on sale in December 2003, we equipped the *CR-V* and the *FR-V* with this engine. In January 2006, we also began offering the new *Civic* with this engine. We also released the *CR-V* equipped with a diesel particulate filter (DPF)\*<sup>3</sup> to achieve higher fuel efficiency and cleaner exhaust.

### ● Asia

In Thailand, Honda's locally produced *Jazz* has already achieved the Euro4 emission standard to be implemented in the future. Since the introduction of the *Jazz*, all models introduced in Thailand have achieved the Euro4 emission standard. In addition, Honda has already achieved the Euro3\*<sup>2</sup> emission standard implemented in Beijing, China, for all models sold in the market since December 2005.

## 2. Evolution of Hybrid Vehicles

In November 1999, Honda released the *Insight*, the first hybrid vehicle equipped with the Honda integrated motor assist (IMA) 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 CO<sub>2</sub> emissions by delivering hybrid vehicles that are priced affordably enough to be adopted by more customers throughout the world.

## 3. Promotion of Alternative Fuel-Powered Vehicles

### ● North America (the United States)

In order to promote use of vehicles powered by alternative fuels, Honda leased 19 *FCX* fuel cell vehicles in North America (a total of 30 leases of the *FCX* in Japan and the United States). One of the vehicles was leased to the world's first private owner of a fuel cell vehicle. In Torrance, California, we are converting natural gas to hydrogen to power fuel cell vehicles. We are in the process of testing hydrogen fueling stations, such as the *Home Energy Station*, which provides hydrogen to generate heat and electric power in homes. We are trying to expand sales of the *Civic GX*, our natural gas-powered vehicle by promoting it together with the introduction of an affordable home refueling appliance for natural gas-powered vehicles. Honda is thus playing a leading role in the promotion of alternative fuel-powered vehicles.

### ● Other Regions (Brazil)

In Brazil, where ethanol produced from sugar cane is used as fuel, since the mid-1980s Honda has offered motorcycles and automobiles that run on a combination of ethanol and gasoline. The percentage of ethanol used in fuels in Brazil is increasing, with a 100% ethanol fuel, called E100, now available. To meet this challenge, Honda is developing a flex-fuel vehicle that operates on any gasoline-ethanol mixture. This vehicle is expected to go on sale in 2006.

**\*1: Tier2 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. Regulation value of NOx for emission category BIN5: 0.07g/mile

**\*2: Euro3/Euro4**

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

**\*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.

Note: For further details on Honda's environmental activities, please refer to the *Honda Environmental Annual Report 2006*.  
URL: <http://world.honda.com/environment/2006report/>

### 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. We will continue to promote “Hand Delivery of Safety,” our key phrase for safety promotion activities to create greater harmony between people and vehicles to establish a safer and more comfortable mobility society.

#### ■ Safety Technologies

Honda will develop safety technologies for accident prediction and prevention, technologies to reduce injuries to passengers and pedestrians from car accidents, and technologies for enhancing compatibility, while expanding our lineup of products incorporating such technologies.

Honda has developed the world's first production motorcycle airbag system. The new system, which can help lessen the severity of injuries caused by frontal collisions, is to be made available on the new *GoldWing* motorcycle scheduled for release in mid-2006 in the United States.

Honda has developed *Honda ASV-3*, Advanced Safety Vehicle equipped to exchange positional information with other vehicles using Inter-Vehicle Communication technology. This was a central objective of the five-year (April 2001-March 2006) ASV (Advanced Safety Vehicle)-3 Project\*\*4 led by the Ministry of Land, Infrastructure and Transport. Additionally, *Honda ASV-3* vehicles feature several new advanced safety technologies developed by Honda, including a system that uses cameras and millimeter wave radar to provide drivers with information on approaching vehicles and obstacles on the road; a system that offers driver support through steering and brake assist; and an emergency response system designed to aid in rescue efforts in the event of an accident. Honda plans to conduct further research and development of technologies deployed in the ASV-3 research vehicles with a view to implementing them in mass production vehicles.



*GoldWing*



*Honda ASV-3*

#### ■ 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.

Driving and riding safety promotions modeled on Honda's activities in Japan were operated by 26 corporations in 20 countries. These promotions are modified to reflect the various driving and riding conditions and licensing systems of each country. In 2005, Russia began this promotion.

For motorcycles, in Turkey we have completed a new motorcycle training course and provided training for police, companies and individual riders. A Honda motorcycle dealership in Pakistan employs riding advisors, who conduct one-day schools and provide safety advice. In these ways, we are working to expand our Asia-focused safety activities.

For automobiles, we have introduced in Russia the framework of the Rainbow Dealer System practiced by Honda car dealerships in Japan, and in April 2006, we began training Safety Coordinators who will provide safety advice to customers at Honda dealerships. In such ways, we propagate Honda's philosophy to Russian drivers. As the number of automobiles in China continues to increase, Guangzhou Honda, our affiliate, has begun educating its employees as role models for safe driving.

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

\*4: ASV (Advanced Safety Vehicle)-3 Project

The third phase of a project that Japan's Ministry of Land, Infrastructure and Transport began in 1991 to promote the development of advanced safety vehicles, which manufacturers of automobiles and motorcycles join voluntarily