



Honda Environmental Annual Report

2007



Commitment to the future

## Environmental Information Disclosure

Honda discloses its environmental policies and practices on its website (<http://world.honda.com/environment/>) and in this Environmental Annual Report.

The Environmental Annual Report describes Honda's environmental initiatives, including fundamental environmental policies, the overall direction of these initiatives, and their implementation in each of Honda's operations. The report also outlines the progress Honda has made as an industry leader on environmental issues, and outlines plans and specific targets for ongoing engagement with environmental issues.

The Environmental Report is integral to our 'Plan, Do, Check and Act' process, and documents the actions taken in the period covered by the report. We invite readers to provide us with feedback, which we will apply to further improving our environmental policies, practices and communications.



### Report Scope

- Period covered:** FY2007  
(April 1, 2006–March 31, 2007)  
The report also refers to certain activities conducted in FY2008.
- Areas covered:** Primarily Japan, with some coverage of other countries
- Organizations covered:** The report focuses on environmental initiatives undertaken in FY2007 by Honda Motor Co., Ltd. and the following major affiliates in Japan:  
Honda R&D Co., Ltd.  
Honda Engineering Co., Ltd.  
Honda Motorcycle Japan Co., Ltd.  
Honda Access Corporation

The report includes information on the environmental impact of the business operations of Honda Motor Co., Ltd. and 53 other Honda Group companies in Japan. The report also provides some coverage of 82 Honda Group companies in Japan and other countries that conduct final assembly of Honda products and principal parts manufacturers. For details, please see page 88.

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## Environmental Mark



This mark symbolizes the wind blowing gently over the beautiful green earth, clear water that gives the essence of life, and the perpetually shining sun. Honda uses this environmental mark around the world to show its commitment to the conservation of the global environment.

# Striving to Be a Company Society Wants to Exist

## Further Improving Environmental Technology by Strengthening Product Creation Capabilities at the Source

Once again, in FY2007 Honda achieved record unit sales of motorcycles, automobiles and power products, delivering more than 22 million products to customers worldwide.

To ensure continuing success in creating new value for our customers, Honda is strengthening the fundamentals of our product creation capabilities worldwide. With a view to even greater mid- and long-term progress, we are working to achieve three key objectives: further developing our advanced manufacturing systems; strengthening our foundation for growth in international operations; and reducing the environmental impact of our corporate activities.

## Growing Awareness of Environmental Issues

At the recent summit of leading industrialized nations in Heiligendamm, Germany, consensus was reached on the need for a new international framework to mitigate global warming. Environmental issues contributing to this phenomenon can no longer be dealt with solely on a national or regional level. Worldwide, there is an increased sense of urgency about the need to act globally.

In particular, the need to curb CO<sub>2</sub> emissions—broadly accepted as the major cause of global climate

change—is now considered a key priority throughout the world.

As a corporation operating on a global scale, Honda thoroughly understands its responsibilities and considers it a key management priority to help solve the problem of global warming.

## Leading the Way in Environmental Preservation

Honda has long been a leader in confronting emerging environmental issues. In 1992 we issued the Honda Environment Statement. We have worked with great determination to preserve the environment in accordance with this statement and its underlying principles.

In FY2007 we attained all independently established targets for CO<sub>2</sub> emissions reductions, set new targets for products and production, and took the lead by undertaking new efforts to further reduce Honda's CO<sub>2</sub> emissions worldwide. Accordingly, we have announced voluntary targets to reduce worldwide product and production-related CO<sub>2</sub> emissions 10% by 2010, compared to 2000 levels.

Honda has also recently announced similarly ambitious new targets for the reduction of the environmental impact of our corporate activities in Japan by 2010.

These announcements confirm Honda's intention to continue to lead the way, doing everything in our power to help conserve the global environment.

## A Never-Ending Challenge

In everything we do, Honda is determined to lead, always striving to be a company people throughout the world will want to exist.

Honda will continue its tradition of approaching evolving issues faced by society with original thinking and innovation, taking the lead in seeking solutions.

The targets we have set for ourselves will not be easy to attain, but we are approaching them with resolve. We are confident that determination and creativity will lead us to achievements unrivaled by any other manufacturer, as we work to deliver on the promise of truly sustainable mobility for people everywhere. It's a never-ending challenge. Honda is ready.



Takeo Fukui  
President & CEO

# Producing the World's Cleanest, Most Efficient Products at the World's Cleanest, Most Efficient Factories

In Publishing the Honda Environmental Annual Report 2007

## Honda's Approach to Environmental Issues

During the 20th century the focus was on making mobility more convenient and comfortable. In the 21st century we must turn our attention to environmental responsibility, and to making the convenience and comfort of mobility sustainable.

In accordance with the vision expressed in our Commitment to the Future, Honda has always considered environmental preservation a key management priority and worked proactively to minimize environmental impacts. Aware of growing concerns over global climate change, Honda is intensifying environmental conservation efforts at all its facilities worldwide.

Seeking to produce the world's cleanest, most efficient products at the world's cleanest, most efficient factories, Honda has set ambitious new worldwide targets for CO<sub>2</sub> reductions, covering all products and production activity.

As a global average, CO<sub>2</sub> emissions from Honda automobiles were reduced by about 6% from FY2001 to FY2007. In the same period, average CO<sub>2</sub> emissions generated by the manufacture of each Honda automobile were reduced by about 10%. By 2010, we aim to further reduce automobile emissions to reach the target of a 10% reduction from 2000 figures. We also aim to reduce motorcycle and power products emissions by 10%, and reduce the CO<sub>2</sub> emissions generated by their manufacture by 20%. Honda's announcement of these voluntary targets was a first for the global automobile manufacturing industry.

## Strengthening Efforts to Reduce Environmental Impact

Honda is proceeding determinedly with measures that will further reduce the environmental impact of its activities.

## Worldwide CO<sub>2</sub> Reduction Targets

Striving to attain the targets announced for reducing CO<sub>2</sub> emissions worldwide, Honda is working to further improve both the efficiency of its engine technology and the energy efficiency of its manufacturing. We will continue to take the lead in environmental responsibility.

- Through the introduction of further improvements to our VTEC engine and Variable Cylinder Management system, as well as the introduction of super-low friction motorcycle engines and other advances, we are achieving even better fuel efficiency.
- Following the highly favorable worldwide reception of the Civic Hybrid, we will introduce an even more reasonably priced, dedicated hybrid vehicle in 2009.
- In the U.S., we will introduce a new clean diesel engine that satisfies the U.S. EPA's Tier 2 Bin 5 requirement for diesel emissions on par with gasoline engines. We are also considering introducing this engine in Japan.

Honda is gearing up for many other new environmental initiatives:

- We plan to introduce a new fuel cell vehicle based on the Honda FCX Concept in the U.S. and Japan in 2008.
- In late 2007 Honda Soltec Co., Ltd. (established Dec. 2006) will begin full-scale commercial production and sales of a new thin-film solar energy system in Japan. This energy-efficient technology, whose manufacture requires less energy consumption than solar technologies, will help curb global warming.
- Some 50,000 households have installed our compact home cogeneration systems since their introduction in Japan in 2003. The systems went on sale in the U.S. in March 2007.

## Environmental Impact Reduction Targets for FY2011 in Japan

Honda has also recently set new targets for the reduction of the environmental impact of its corporate activities in Japan. The key targets are as follows:

- Energy/climate change
  - Reduction of CO<sub>2</sub> emitted in transportation
- Reduction of emissions of substances of concern
  - Reduction of VOC use in painting automobiles
- Recycling
  - Elimination of landfill waste by all facilities
  - Reduction of waste and water use at all Honda manufacturing facilities
  - Reduction of packaging materials
  - Increase in recycling rates for automobile and motorcycle components

As a leading mobility manufacturer, Honda is seeking to take the initiative in environmental conservation, implementing effective measures proactively. There is a lot of work ahead, but the destination is clear and Honda is making steady progress.

## In Publishing the Honda Environmental Annual Report 2007

Through this report, Honda publishes the results of its environmental initiatives.

This year, in addition to a focus on the newly announced targets for CO<sub>2</sub> emissions reduction by 2010, we present promising next-generation technologies and a straightforward summary of our initiatives. It is our hope that this publication will help lead to greater appreciation of Honda's environmental initiatives.

We warmly welcome readers to share with us their opinions and ideas about the report and Honda's activities.



Masaaki Kato  
Director Responsible for the Environment  
Senior Managing and Representative Director

# The Honda Environment Statement

Honda has long been committed to environmental conservation. In the 1990s we strengthened our organizational structure and released the Honda Environment Statement to clearly define our approach to environmental issues. We have continued to strengthen our environmental conservation initiatives, which are central to everything we do.

Looking to the future, we have expressed our 2010

Vision, which affirms that our corporate culture is based on freedom and openness, challenge and cooperation. The commitment to the future defined in our vision statement mandates that we work determinedly to meet our ambitious environmental goals. We understand that there are no shortcuts in our collective task of overcoming the environmental issues facing society—or to being a company society wants to exist.

## Honda Environment Statement

**As a responsible member of society whose task lies in the preservation of the global environment, the company will make every effort to contribute to human health and the preservation of the global environment in each phase of its corporate activity. Only in this way will we be able to count on a successful future not only for our company, but for the entire world.**

We should pursue our daily business interests under the following principles:

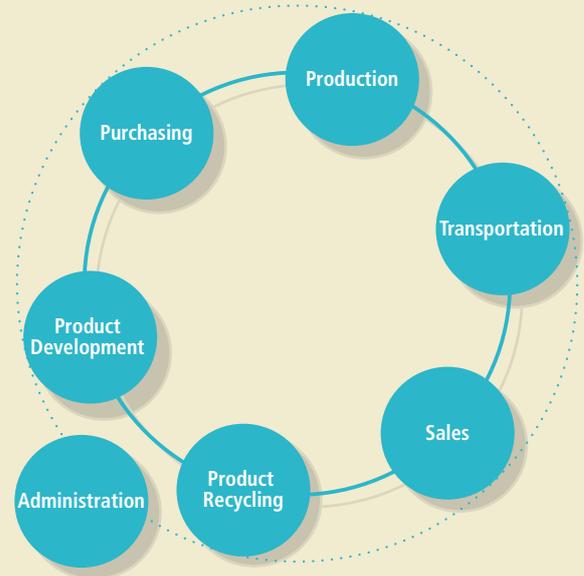
- 1** We will make efforts to recycle materials and conserve resources and energy at every stage of our products' life cycle from research, design, production and sales, to services and disposal.
- 2** We will make every effort to minimize and find appropriate methods to dispose of waste and contaminants that are produced through the use of our products, and in every stage of the life cycle of these products.
- 3** As both a member of the company and of society, each associate will focus on the importance of making efforts to preserve human health and the global environment, and will do his or her part to ensure that the company as a whole acts responsibly.
- 4** We will consider the influence that our corporate activities have on the local environment and society, and endeavor to improve the social standing of the company.

Established and announced in June 1992



# Assessing Environmental Impact

Honda is aware of its responsibility for the environmental impact generated by its corporate activities and use of its products, and is committed to minimizing it. To achieve this, it is essential that we identify specific issues and set targets for action. We set specific goals in the context of our Life Cycle Assessment system, which is used to measure, assess and analyze environmental impact.



Domain	Concerns	Environmental Impact	Major Initiatives
Product development	CO <sub>2</sub> Exhaust emissions Noise	<b>Global environmental issues</b>  Global warming Ozone depletion Depletion of natural resources  Air pollution  Waste  Water pollution Soil pollution  Noise  <b>Local environmental issues</b>	<ul style="list-style-type: none"> <li>•Exhaust emissions</li> <li>•Fuel efficiency improvements</li> <li>•Noise reduction</li> <li>•Recyclability improvements</li> </ul>
Purchasing	CO <sub>2</sub> Waste Wastewater Exhaust emissions Noise Chemicals		<ul style="list-style-type: none"> <li>•Green Purchasing</li> </ul>
Production	CO <sub>2</sub> Waste		<ul style="list-style-type: none"> <li>•Green Factories</li> </ul>
Transportation	Removed parts Fluorocarbons Waste		<ul style="list-style-type: none"> <li>•Green Logistics</li> </ul>
Sales	End-of-life products		<ul style="list-style-type: none"> <li>•Green Dealers (automobiles, motorcycles and power products)</li> </ul>
Product Recycling	CO <sub>2</sub> Waste		<ul style="list-style-type: none"> <li>•Recovery, recycling and reuse of parts</li> <li>•Technical support for the proper disposal and recycling of end-of-life products</li> </ul>
Administration			<ul style="list-style-type: none"> <li>•Green Offices</li> </ul>

# Addressing the Issue of Global Climate Change

Having attained the targets we set for 2005, Honda is now working to achieve important new objectives.

### Global Climate Change

The issue of global climate change cannot be resolved solely by action at the regional level. Honda is addressing the problem on a global scale.

### Growing Demand for Mobility

Currently, there is a significant gap between people in developed countries and those in developing countries in terms of access to convenient transportation. Improvement in the quality of mobility is essential to improving people's quality of life. Consequently, the demand for automobiles and other forms of transportation can be expected to continue to grow.

Honda is working to further develop its technology to reconcile **the issues of global climate change and growing demand for mobility**. The overall goal is **to manufacture products with the lowest in-use CO<sub>2</sub> emissions at manufacturing plants with the lowest CO<sub>2</sub> emissions per unit of production**.

### Product Efficiency: Raising Fuel Efficiency Averages Worldwide

Since the internal combustion engine seems likely to continue to provide the principal means of mobility until at least the year 2020, Honda is working to improve its efficiency and fuel economy.

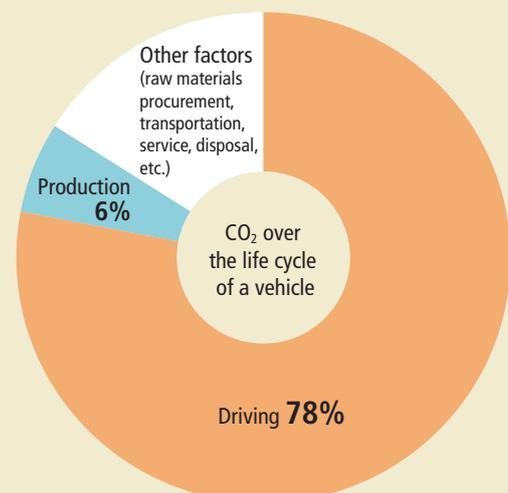
Stringent regulations such as Corporate Average Fuel Economy (CAFE) standards have been introduced in the U.S., Europe and other regions to mandate improved automobile fleet fuel efficiency. Recognizing the need for global initiatives, Honda is moving from measuring regional averages to measuring fuel efficiency averages on a global basis, and from fuel efficiency averages based on vehicle categories to **average targets for its entire worldwide vehicle lineup**.

### Production Efficiency: Reducing Per-Vehicle CO<sub>2</sub> Emissions in Manufacturing Worldwide

Honda is also committed to further improving the efficiency of its manufacturing processes worldwide. To this end, we have established global targets for average per-unit CO<sub>2</sub> emissions in manufacturing.

### Product and Production Targets That Cover Most of the Vehicle Life Cycle

According to assessments made on the basis of the Honda Life Cycle Assessment (LCA) system, approximately 78% of emissions are generated by driving vehicles, and about 6% in their manufacture. **Thus, Honda's targets for improvement of product and production efficiency can be considered to cover more than 80% of automobile-related life cycle CO<sub>2</sub> emissions.**



CO<sub>2</sub> emissions over the life cycle of a vehicle (as assessed with the Honda LCA system)

# Global CO<sub>2</sub> Reduction Targets for 2010 (baseline: 2000)



## Product CO<sub>2</sub> Reduction Targets

Global average of CO<sub>2</sub> emitted by all Honda products

**10%**  
(per g/km)

**10%**  
(per g/km)

**10%**  
(per kg/h)

## Production CO<sub>2</sub> Reduction Targets

Global average of per-unit CO<sub>2</sub> emitted during production

**10%**  
(per unit)

**20%**  
(per unit)

**20%**  
(per unit)

### •Target scope:

Product—Automobiles: Japan, North America, Europe/Middle East/Africa, Asia/Oceania, China, South America (more than 90% of worldwide sales)

Product—Motorcycles: Japan, North America, Europe, Thailand, India, China, Indonesia, Vietnam, Brazil, the Philippines, Malaysia, Pakistan (more than 90% of worldwide sales)

Product—Power Products: All sales in all regions (marine outboards excluded)

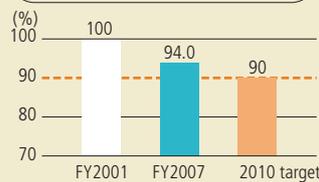
Production: All manufacturing by Honda Motor and 72 other Honda Group companies worldwide engaged in the assembly of vehicles and major components. (See p.88 for details.)

Note: Honda Precision Parts of Georgia, LLC has been added.

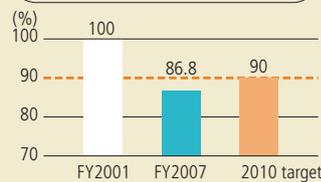
## FY2007 Results (in progress)

### Product CO<sub>2</sub> Reduction

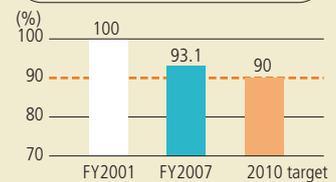
**Automobiles** 6.0% reduction



**Motorcycles** 13.2% reduction\*<sup>1</sup>



**Power Products** 6.9% reduction

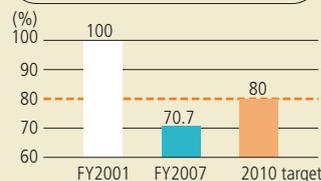


### Production CO<sub>2</sub> Reduction

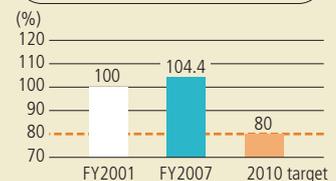
**Automobiles** 9.5% reduction



**Motorcycles** 29.3% reduction\*<sup>2</sup>



**Power Products** 4.4% increase\*<sup>3</sup>



\*1 A 13.2% reduction from 2000 has already been attained. We are striving to attain a minimum 10% reduction by 2010.

\*2 Although the target has already been attained, an expansion of production is foreseen in this region, where CO<sub>2</sub> emissions are relatively high. We are striving to maintain the reduction target level and achieve even greater reduction by 2010.

\*3 Higher, per-unit emissions in power product manufacturing can be attributed to larger and more feature-rich new products.

## CO<sub>2</sub> Reduction Initiatives

Striving to attain all CO<sub>2</sub> reduction targets, Honda is engaged in various initiatives:

- Hybrid automobiles → [P. 12](#)
- Production initiatives → [P. 13](#)
- Diesel automobiles → [P. 12](#)
- Entering the Solar Power Industry → [P. 13](#)
- Gasoline automobiles → [P. 12](#)

## Advanced Environmental Initiatives

Seeking to achieve genuine customer satisfaction, Honda is engaged in the development of a range of environmental technologies and is working to introduce them to market as early as possible. Here we present some new technologies implemented and under development, as well as examples of market introductions and new business initiatives in FY2007.

## Working Toward our 2010 Targets

### Hybrid Automobiles

#### Accelerating the Global Rollout of Hybrids and Developing a Dedicated Hybrid

Since the 1999 U.S. release of the Insight, the first hybrid automobile sold in the U.S., Honda has released the Civic Hybrid, Accord V6 Hybrid, and, in 2005, a second-generation Civic Hybrid equipped with a 3-Stage *i*-VTEC+IMA (Integrated Motor Assist) system. Currently, the Civic Hybrid is a consumer favorite in Japan, the U.S. and Europe. With plans for a release in China, we're making the Civic Hybrid available to more customers worldwide. In addition, we're developing a

dedicated hybrid vehicle featuring even better fuel efficiency and an even more reasonable price for release in 2009.



Civic Hybrid MXB

Hybrids worldwide → P.70

### Diesel Automobiles

#### An Even Cleaner Next-Generation Diesel

The basic technology of diesel engines gives them higher efficiency and better fuel economy. In Europe, diesel engines are considered the technology of choice for reducing CO<sub>2</sub> emissions. Since introducing the 2.2-liter 4-cylinder *i*-CTDi diesel Accord in 2003, Honda has introduced diesel versions of the FR-V (Edix in Japan), CR-V and Civic. A CR-V equipped with a diesel particulate filter has also been released. Honda is now developing an even cleaner next-generation 4-cylinder diesel engine for introduction in North America within the next two years, and is considering its introduction in Japan. The new engine employs an innovative catalytic converter featuring a two-layer structure: one layer adsorbs NOx from the exhaust gas and

converts a portion of it into ammonia, while the other layer adsorbs the resulting ammonia and uses it in a later reaction that converts the remaining NOx into nitrogen. This enables a reduction in NOx emissions sufficient to comply with the stringent U.S. EPA Tier 2 Bin 5 emissions regulations that require that diesel emissions be on par with gasoline engines. Looking to take full advantage of the superior environmental performance of this new technology, Honda is also developing a clean V6 diesel engine.



Honda's next-generation diesel engine with new NOx catalytic converter

Diesels worldwide → P.69

### Gasoline Automobiles

#### Advanced Engines and Even Better Fuel Efficiency

Honda is further advancing its Variable Valve Timing and Lift Electronic Control (VTEC) technology with the development of an advanced VTEC engine that achieves even more powerful performance, outstanding fuel economy and lower emissions. The new engine combines continuously variable valve lift and timing control with the continuously variable



Advanced VTEC engine

phase control of Variable Timing Control (VTC). Honda plans to release a production vehicle equipped with the new engine by 2009. The new system permits optimum control over intake valve lift and phase in response to driving conditions, achieving improved intake efficiency for a significant increase in torque at all engine speeds. Under low to medium loads, the valves are set for low lift and early closure to reduce pumping losses and improve fuel efficiency. In combination with optimized intake components, these advances in control technology result in world-class dynamic performance and an approximate 13% improvement in fuel efficiency. The new engine is also exceptionally clean, with exhaust emissions that comply with both U.S. EPA LEV2-ULEV regulations and Japan's Ministry of Land, Infrastructure and Transport standards for Low-Emissions Vehicles, with emission

levels 75% lower than those required by the 2005 standards (Honda calculations).

In 2003 a Variable Cylinder Management (VCM) system, which features cylinder idling, was introduced in the Japan-market Inspire. The system improves fuel efficiency approximately 11% as compared with a conventional Honda V6 engine without VCM. Honda will continue to implement advanced VTEC and VCM technologies in production vehicles, and will expand the application of these core technologies to further improve fuel economy.

Fuel-efficient gasoline automobiles in Japan → P.29

Fuel-efficient gasoline automobiles outside of Japan → P.69

## Production Initiatives

### Minimizing the Environmental Impact of Production Facilities Worldwide

Honda strives to produce the world's cleanest and most efficient products from the world's cleanest and most efficient factories. We are intensifying efforts at our production facilities to reduce CO<sub>2</sub> emissions and counter global warming. In addition to the natural gas cogeneration systems already installed at the Saitama and Suzuka factories, a fifth system that began operations at Kumamoto Factory in July 2006 is providing electrical generation efficiency of 44%, an increase of approximately 10%. In addition, the cogeneration engine's exhaust gas is used to produce steam and hot water, which is used in the factory's motorcycle painting operations, resulting in a reduction of approximately 1,039 tons of CO<sub>2</sub> emissions in FY2007.

At Tochigi Factory we completed the process of replacing kerosene and liquid petroleum gas (LPG) with natural gas (CNG) and reduced CO<sub>2</sub> emissions by 1,870 tons in FY2007. This completes the shift to natural gas at all our factories in Japan. Further,

motorcycle production will soon be shifted from Hamamatsu to Kumamoto, consolidating production as part of our move to improve efficiency.

At the new automobile factories scheduled to begin production in Yorii and Ogawa in Saitama Prefecture in 2010, world-leading levels of recycling and energy efficiency are to be achieved, with per-unit CO<sub>2</sub> emissions 20% lower than FY2001 levels. Taking the Green Factory initiative to the next level, the new plants will be designed for maximum resource conservation and recycling.

In international operations, Guangzhou Honda's second plant, Zengcheng Factory, which began production in September 2006, features an industry first: 100% recycling of water. Achieving zero-emissions of wastewater, the facility has saved an estimated 170,000 tons of water.

The new U.S. automobile plant in Greensburg, Indiana, scheduled to open in late

2008, will feature advanced, highly efficient manufacturing systems. It will aim to eliminate landfill waste and minimize the use of VOCs through water-based painting, among other measures. The state-of-the-art facility is expected to achieve the lowest environmental impact of any Honda automobile factory in North America.

Honda will continue to improve environmental efficiency at all of its manufacturing facilities worldwide, striving for the lowest possible environmental impact.



Natural gas cogeneration system (Kumamoto Factory)



Zengcheng Factory, Guangzhou Honda



Water-based painting lines

Green Factories in Japan → P.38

Green Factories outside of Japan → P.71-74

## Entering the Solar Power Industry

### Next-Generation Thin-Film Solar Panels go into Production

With the FY2007 installation of its originally developed next-generation thin-film solar panels at the Suzuka and Tochigi factories, a total of 14 installations in Japan and three overseas have been so equipped. Since the panels produce electricity with no CO<sub>2</sub> emissions, these installations represent another step toward producing the world's cleanest, most efficient products from the world's cleanest, most efficient factories.

Honda has entered the solar power industry. Established in December 2006 as a wholly owned subsidiary of Honda Motor Co., Ltd., Honda Soltec Co., Ltd. began Japan sales in June 2007 of the integrated thin-film solar panels originally produced by Honda Engineering Co., Ltd. Made from CIGS, a compound of copper, indium, gallium and

selenium, these next-generation solar cells feature superior solar energy conversion and manufacturing efficiency. Their manufacture requires only about half the energy of conventional crystallized silicon-based cells, reducing the CO<sub>2</sub> emissions associated with production. The new Honda subsidiary's plant, located on the premises of the Honda Motor Kumamoto Factory, will have an annual production capacity of 27.5MW. Full-scale production will begin in late 2007.



Honda Soltec Co., Ltd.

Honda solar power → P.62

# Advanced Environmental Initiatives

## Fuel Cell Vehicles

### The Next-Generation FCX Concept Fuel Cell Vehicle

In 2008 Honda will begin limited marketing in the U.S. and Japan of a next-generation fuel cell vehicle based on the FCX Concept. Featuring significant gains in both environmental and driving performance, the FCX Concept is equipped with a V Flow fuel cell platform consisting of a compact, high-efficiency fuel cell stack arranged in an innovative center-tunnel layout. This has allowed designers to create an elegant, low-riding sedan form that would have been difficult to achieve in a conventional fuel cell vehicle.

Whereas with previous fuel cell stacks the hydrogen and water formed in electricity generation flowed horizontally, the new FCX Concept features vertical-flow design. This allows gravity to assist in water management, resulting in a major improvement in water drainage, which is key to high-efficiency fuel cell stack performance. The result is stable power generation under a broad range of conditions, and higher output from a smaller

package. Low-temperature startup has also been significantly improved, enabling cold-weather starts at temperatures 10°C (18°F) lower than the current FCX—as low as minus 30°C (-22°F). Efficiency improvements to major power plant components give the vehicle a range approximately 30% greater than the current FCX. The vehicle is also highly efficient, with an energy efficiency of about 60%—approximately three times that of a gasoline vehicle, twice that of a hybrid vehicle, and 10% better than the current FCX. The seats and door linings are made of a durable new Honda-developed bio-fabric that is resistant to fading from sunlight.



The next-generation FCX Concept fuel cell vehicle

Fuel cell vehicles → [P.31](#) [P.70](#)

## Home Cogeneration Systems and Solar Electricity Generation (Hydrogen Station)

### Experimental Operations with Advanced Home Energy Station Begin

Honda began experimental operation of the Home Energy Station in 2003. Its third-generation model is about 30% smaller, yet offers about 25% more electrical power output and faster startup than the previous model. Hydrogen storage and production capacity are both improved by about 50% with the use of a new high-performance natural gas reformer. Offering a total energy solution, the Home Energy Station uses natural gas as fuel in supplying electricity and hot water to the home, and a sufficient quantity of hydrogen to power a fuel cell vehicle. In another advanced initiative, Honda has applied its revolutionary solar panel technology to create the experimental

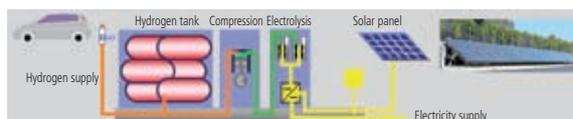
hydrogen station. Developed by Honda using CIGS, a compound of copper, indium, gallium and selenium, the thin-film integrated solar panels feature better electricity conversion. The electricity is passed through a particle electrolyte membrane to generate hydrogen, which is then compressed and stored for use by the fuel cell vehicle. The system boasts an energy efficiency of 52–54%. The panels can

be manufactured using about half the energy required to make traditional silicon-based panels.

Home Energy Station → [P.70](#)



Home Energy Station, fuel cell vehicle



Hydrogen Station

## Motorcycles

### Improving Fuel Efficiency by Implementing Fuel Injection and Variable Cylinder Systems

Honda has been advancing steadily with the conversion of scooters and the full range of motorcycles to 4-stroke engines, and with the implementation of electronically controlled fuel injection (PGM-FI).

Until recently, fuel injection had been limited to mid-size and larger motorcycles, but in 2004 Honda introduced the world's first 50cc scooter with electronic fuel injection (PGM-FI). For the 100-125cc class of motorcycle, so popular with customers worldwide, Honda has been introducing fuel injection for water cooled engines, along with improved structural design, enhanced local parts procurement and other measures which help lower the cost of fuel injection implementa-

tion. In 2006 we released PGM-FI-equipped motorcycles for the first time in India (Glamour FI) and China (SCR110). Plans are to offer fuel injection on more than half of all motorcycles sold worldwide by 2010

Further, we are now developing a Variable Cylinder Management system based on automobile technology for large motorcycle engines in combination with the Hyper VTEC system. With this new system, the number of cylinders and valves activated can be variably controlled to deliver both higher fuel economy and superior driving performance. For large motorcycles, our goal is to increase fuel economy by approximately 30%\* over FY2006 levels.

\* Compared with a conventional motorcycle engine of similar size and performance



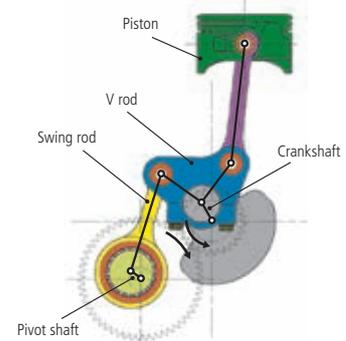
SCR110

Power Products

Developing Next-Generation Power Products

Since compact gasoline engines tend to be air-cooled and are often subject to continuous use under mid- to high-load conditions, it was thought that little could be done to prevent engine knocking as compression ratios change, and that there were limited efficiency gains to be achieved. With the goal of improving heat efficiency, Honda began development of a high-expansion-ratio engine with its own original multi-link structure. Improving on the conventional design with a connecting rod and a crank pin with four-jointed linkage, Honda developed a

multi-link structure that applies the Atkinson Cycle to realize an expansion cycle longer than the compression cycle. Testing revealed a 20% increase in fuel efficiency compared to the conventional design. The results of this research were well received when presented at the Small Engine Technology Conference in San Antonio, Texas, in the U.S., in November 2006.



Piston-crank design featuring a multi-link structure

Bio-Ethanol Production Technology

Technology for Producing Ethanol from Soft-Biomass Developed through Cooperative Research

Cooperative research by the Research Institute of Innovative Technology for the Earth (RITE) and Honda R&D Co., Ltd., has resulted in the development of technology for the production of ethanol from soft-biomass\*1, a renewable resource of plant-derived material.

Since the CO<sub>2</sub> released in the combustion of bio-ethanol is balanced by the CO<sub>2</sub> captured by plants through photosynthesis and thus does not increase the total amount of CO<sub>2</sub> in the atmosphere, bio-ethanol is of considerable interest as a carbon-neutral fuel and as an energy source that is a potential countermeasure to global-warming.

Existing bio-ethanol production, however, faces supply limits, as it is produced primarily from sugarcane and corn feedstock, which are also needed as food.

RITE and Honda have now developed the technology to produce ethanol fuel from cellulose and hemicellulose\*2, both found in soft-biomass, including inedible leaves and stalks of plants such as rice straw, which until now could not be readily converted to ethanol. This new process represents a major step forward for practical application of soft-biomass as a fuel source.

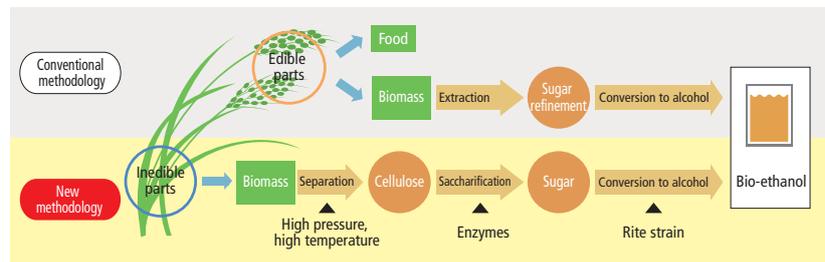
The new RITE-Honda process substan-

tially reduces the harmful influence of fermentation inhibitors through utilization of the RITE strain, a microorganism developed by RITE that converts sugar into alcohol, and by application of Honda engineering technology that enables a significant increase in alcohol conversion efficiency compared to conventional cellulosic bio-ethanol production processes.

With a view to eventual commercial production, Honda has established a test plant at its Wako Fundamental Research Center to continue examining the market appeal and economic viability of this new bio-ethanol technology.

\*1 A renewable organic resource of plant-derived, non-fossil material: the part of the plant remaining after livestock excreta, waste wood, and edible parts of the plant are removed.

\*2 Primary ingredients of the fibrous part of plants, two-thirds of the natural vegetable material. With conventional technology cellulose could not be used for alcohol production.



## Striving for Further Reduction of Environmental Impacts

Honda has been implementing aggressive measures to help resolve environmental challenges since the 1960s, when pollution concerns began to grow. In 1966, soon after beginning automobile production, the company established a department to research measures to deal with air pollution. In 1972, under the theme **'Blue Skies for Our Children'**, Honda introduced the CVCC engine, becoming the first company in the world to comply with the requirements of the U.S. Clean Air Act, thought by many people at that time to be a nearly insurmountable challenge. Honda has continued to confront environmental challenges, believing that **problems**

**caused by technology should be solved with technology.** In the 1990s the company strengthened its organizational structure to reflect Honda's commitment to the environment, and published the Honda Environment Statement to define its approach to environmental issues. Honda has continued to strengthen its environmental initiatives in accordance with this statement.

In 1999 the company defined specific environmental targets, primarily for cleaner exhaust emissions and higher fuel efficiency, and implemented the measures necessary to achieve these targets by the end of 2005.

### Specific Product and Production Targets Attained by 2005

Automobiles	Exhaust emissions (HC, NOx)	Reduce total emissions from new automobiles 75% (baseline: FY1996)* <sup>1</sup>	FY2004	Attained
	Fuel efficiency	Improve average fuel efficiency 25% (baseline: FY1996)* <sup>1</sup>	FY2002	Attained
Motorcycles	Exhaust emissions (HC)	Reduce total emissions from new automobiles 66% (baseline: FY1996)* <sup>2</sup>	FY2001	Attained
	Fuel efficiency	Improve average fuel efficiency 30% (baseline: FY1996)* <sup>2</sup>	FY2004	Attained
Power Products	Exhaust emissions (HC, NOx)	Reduce average emissions 30% (baseline: FY1996)* <sup>3</sup>	FY2002	Attained
	Fuel efficiency	Improve average fuel efficiency 30% (baseline: FY1996)* <sup>3</sup>	FY2006	Attained
Production	Energy savings	Reduce per-unit energy consumption 15% (baseline: FY1991)* <sup>4</sup>	FY2002	Attained
	Waste	Achieve zero landfill waste* <sup>4</sup>	FY2001	Attained

\*1 Target for Japan \*2 Target for Japan, North America, Europe and Thailand \*3 Target for the world

\*4 Target to be achieved in Japan by FY2002 (announced in 1998) A new target has been set: to reduce per-unit energy consumption 30% by FY2011 (baseline: FY1991).

### Approaching the Global Challenge of Reducing CO<sub>2</sub> Emissions Worldwide

A leader in environmental conservation, Honda is expanding its focus on reducing CO<sub>2</sub> emissions from the regional level to the global level. The company has defined reduction targets

for both its products and production operations, and its various worldwide business units are working cohesively to attain them.

### Working to Resolve Environmental Issues in Japan

Honda also recognizes the importance of reducing the environmental impact of corporate activities at the regional level, and has set new targets for the reduction of its environmental impact in Japan. We have defined targets for reducing CO<sub>2</sub> emitted during transportation, reducing the use of substances of concern, increasing recycling and more, for a total of eight environmental impact reduction targets to be attained by FY2011.

Further, in May 2006, the company announced targets for reducing CO<sub>2</sub> emissions by 2010 from all products and production operations worldwide as part of an overall strategy (see following page) for the reduction of environmental impact, and is intensifying its efforts to attain these targets.

# Reducing Environmental Impact: Targets for FY2011

Including major targets for Japan

Issue	Scope		Item	Target		Area	
Energy/ global warming	Products	Automobiles	CO <sub>2</sub> emissions reduction	10% reduction (compared to FY2001)* <sup>1</sup>	Per g/km	Worldwide (Global targets announced in 2006) ← P.10-11	
		Motorcycles		10% reduction (compared to FY2001)* <sup>1</sup>	Per g/km		
		Power Products		10% reduction (compared to FY2001)* <sup>1</sup>	Kg/h		
	Production	Automobiles	CO <sub>2</sub> emissions reduction	10% reduction (compared to FY2001)* <sup>1</sup>	Per unit		
		Motorcycles		20% reduction (compared to FY2001)* <sup>1</sup>	Per unit		
Power Products		20% reduction (compared to FY2001)* <sup>1</sup>		Per unit			
Japan** <sup>2</sup>	CO <sub>2</sub> emissions reduction	30% reduction (compared to FY1991)* <sup>3</sup>	Units of energy used	Japan (announced in 1998)			
Substances of concern	Transportation** <sup>4</sup>		CO <sub>2</sub> emissions reduction	10% reduction (baseline: FY2007)	As % of revenue	New targets	
	Production		VOC** <sup>5</sup> emissions reduction	35% reduction (baseline: FY2001)	Per automobile painted		
Recycling	Total of corporate activities** <sup>6</sup>		Landfill waste	Zero waste for all facilities		Japan *New targets for Japan announced in June 2007	
	Production** <sup>2</sup>	Landfill waste	10% reduction (baseline: FY2001)	As % of revenue			
		Water use	30% reduction (baseline: FY2001)	As % of revenue			
	Transportation** <sup>7</sup>		Use of packaging materials	45% reduction (baseline: FY2001)	As % of revenue		
	Vehicle recycling	Automobiles	ASR recycle rate	70% or more** <sup>8</sup>			
Motorcycles		Recycling rate	At least 95% (by FY2016)** <sup>9</sup>				

\*1 Targets for CO<sub>2</sub> emissions reduction by 2010 announced in 2006 (For details, see p.10-11)

\*2 Five Honda Motor production facilities

\*3 Targets for production announced in 1998

\*4 In accordance with the amendment to Japan's Rationalization in Energy Use Law, this is the responsibility of Honda Motor Co., Ltd. as the transporting entity (transportation of completed vehicles/devices; transportation of parts between facilities; parts transportation, etc)

\*5 Volatile organic compounds: primarily substances of concern such as organic solvents included in paints and thinners that may cause photochemical oxidation

\*6 The primary 48 organizations involved in manufacturing and research & development (including academic institutions and Honda Motor Co., Ltd.)

\*7 Transportation of parts and component parts sets; export of completed motorcycles

\*8 95% recycling defined as recycling of entire vehicle

\*9 Scale as used in former MITI Used Automobile Recycling Initiative

## Strategies for Achieving Targets

	Item	Strategy
Energy/ global warming	Fuel conversion	Conversion of all factories to natural gas completed (FY2007)
	Energy savings	Introduction in all factories of high-efficiency devices (boilers, refrigerators, compressors, etc.); reduction of air pressure loss; calibration of temperature in painting chambers; adjustment of cogeneration equipment for higher-efficiency operation; reduction of power consumption by robots in standby mode, etc.
		Reduction of CO <sub>2</sub> emissions at dealers through use of environmental accounting
		Conversion from trucking to marine/rail transport, reduction of transport distances, improvements in fuel economy resulting in reduction in CO <sub>2</sub> emissions
Alternative fuels/ natural energy use, etc.	Proactive introduction of Honda-designed solar panels	
Substances of concern	VOC	Shift to water-based paints, increase in operational efficiency and reduction of losses resulting in VOC emissions
Recycling	Disposal	Zero landfill waste at factories and 32 manufacturing suppliers (by FY2008)
		Introduction of returnable containers, conversion to simpler packaging and other means of reducing the volume of packaging materials
		Strengthening authorized recycling facilities, expansion of full recycling
Water use	Recycling forging coolant, use of rainwater, etc.	
Environmental strategies to be implemented at new facilities	Yorii Plant (scheduled to begin operation in 2010)	Energy/resource consumption at world-leading levels, resulting in per-unit production CO <sub>2</sub> emissions levels 20% lower than those of FY2001 (Energy/resource recycling Green Factory)

# Results of FY2007 Initiatives and Plans for FY2008

Major objectives		Strategies		FY2007 Targets	
Product development	Exhaust emissions	Automobiles	Increase availability of Low-Emissions Vehicles	Increase number of Low- and Very-Low Emissions Vehicles* <sup>1</sup>	
		Motorcycles	Expand implementation of fuel injection technology	Implement on new models	
		Power Products	Comply with pending regulations	Comply with pending regulations	
	Fuel efficiency improvements	Implement technologies for better fuel efficiency		Automobiles	Improve fuel efficiency to comply with FY2011 Japan fuel efficiency standards
				Motorcycles	Further improvements in fuel efficiency
				Power Products	Further improvements in fuel efficiency
Development of alternative energy products	Automobiles			Expand product line	
	Power Products				
Purchasing	Green Purchasing initiative	Reduce substances of concern in suppliers' parts and materials		Promote supplier compliance with substances of concern guidelines	
		Promote environmental impact management by suppliers		Ensure suppliers reduce CO <sub>2</sub> emissions	
		Promote introduction of environmental management systems by suppliers		Ensure suppliers reduce landfill waste	
				Promote ISO 14001 certification for all suppliers	
Production	Green Factory initiative	Improve energy efficiency		24.0% reduction in per-unit energy consumption	
		Zero landfill waste		CO <sub>2</sub> emissions: 500,000 CO <sub>2</sub> tons	
		Reduce waste (byproducts)		Maintain zero landfill waste	
		Reduce VOC emissions		Recyclability rate: 99.0%	
				Reduce internally incinerated waste 89.0% (baseline: FY1999)	
Transportation	Green Logistics initiative	Implementation of environmental management systems by transport partners		Continuation of joint implementation with four main partners	
		Improve transportation efficiency		CO <sub>2</sub> emissions: 110,650 CO <sub>2</sub> tons (transportation of completed automobiles)	
Sales	Green Dealers initiative	Automobiles	Promote implementation of environmental management at dealers	Expansion of Eco Drive program	
		Motorcycles	Promote implementation of environmental management at dealers	Expansion of environmentally responsible Dream Dealer program	
		Power Products	Promote environmental conservation at dealers	Expansion of Green Dealer initiative (increase environmental awareness)	
Recycling	Improve recyclability	Increase recyclability rate		Automobiles	Increase recyclability rate
				Motorcycles	Reduce use of polyvinyl chlorides (PVCs) ** <sup>4</sup>
				Power Products	Increase recyclability rate
	Increase parts recovery, reuse and recycling	Promote remanufacturing and reuse		Expand range of recyclable parts and their recovery	
	Technical support for proper disposal and recycling of end-of-life products	Develop technologies for proper disposal and recycling of end-of-life products		Automobiles	Reinforce recycling operations
Motorcycles					
Administration	Green Office initiative	Promote integration of environmental impact management at offices		CO <sub>2</sub> emissions at four office buildings: 11,326 CO <sub>2</sub> tons	
				Waste generated at four offices buildings: 512 tons	

\*1 Low-Emissions Vehicles defined as having emissions 50% lower than FY2006 standards; Very-Low Emissions Vehicle defined as having emissions 75% lower than FY2006 emissions standards

\*2 FY2008 target figures for CO<sub>2</sub> and VOC emissions are higher than those for FY2007 results due to changes in business conditions and to increased production and launch of new businesses

\*3 FY2008 target figures for waste recycling and internal waste disposal are lower than those for FY2007 results due to changes in business conditions and to increased production and new business expansion

## Targets Attained by FY2006

Summary of initiatives where targets have been attained

	Attainment date
Auto-mobiles	Conversion from CFC12 to HFC134a
	Late 1994
	Eliminate use of sodium azide (in Japan-made cars)* <sup>1</sup>
	Late 1998
	Eliminate use of lead in wire harnesses** <sup>2</sup>
	Late 1998
	By 2002 reduce emissions on all production vehicles to less than 50% of Japan standards for 2000* <sup>3</sup>
	Late 2002
	Reduce use of lead to 10% that of 1996 (JAMA target)
	May 2004
	Eliminate most use of mercury in Japan-made models* <sup>4</sup>
	By 2001
	By 2005 receive certification by Japan's Ministry of Land, Infrastructure and Transport as Low-Emissions Vehicles and Very-Low Emissions Vehicles for most production vehicles
	FY2006* <sup>5</sup>
	By 2005 reduce overall HC and NOx emissions 75% (baseline: FY1996)
	FY2005* <sup>3</sup>
	By 2005 comply with FY2011 emissions standards in all vehicle weight categories
	FY2006* <sup>3</sup>
	By 2005 improve average fuel efficiency 25% (baseline: FY1996)
	FY2002* <sup>3</sup>
	By 2005 eliminate all use of cadmium
	December 2005
	By 2000 increase recyclability rate to 90% or more
	FY2002

Note: Low-Emissions Vehicles: vehicles with emissions 50% lower than FY2006 standards  
Very-Low Emissions Vehicle: vehicles with emissions 75% lower than FY2006 emissions standards

Motorcycles	Eliminate use of lead in wire harnesses
	Reduce use of lead in Japan-made models to less than 60g/unit (JAMA target)
	Eliminate most use of mercury in Japan-made models* <sup>4</sup>
	By 2005 reduce overall HC and NOx emissions by 33% (baseline: FY1996)* <sup>6</sup>
	By 2005 improve average fuel efficiency by 30% (baseline: FY1996)* <sup>6</sup>
	By December 2005 eliminate all use of cadmium
	Increase recyclability rate to 90% or more
Power	Eliminate use of lead in wire harnesses
Products	Reduce use of lead in Japan-made models (in accordance with JAMA guidelines)
	Eliminate most use of mercury in Japan-made models
	Eliminate all use of cadmium in Japan-made models
	By 2005 reduce overall HC and NOx emissions by 30% (baseline: FY1996)* <sup>7</sup>
	By 2005 improve average fuel efficiency by 30% (baseline: FY1996)* <sup>7</sup>
Production	By 2001 reduce per-unit energy consumption by 15% (baseline: FY1991)
	By 2001 eliminate all landfill waste

We will continue to strive to attain ambitious targets for environmental conservation in every domain and every stage of the product life cycle. If a target is not attained, we will thoroughly assess the circumstances, and intensify efforts in FY2008 to attain it.

FY2007 Results	Status	FY2008 Targets	See
Seven additional models (15 types) approved as Low- or Very-Low Emissions Vehicles (total: 26 models, 58 types) as per 2005 standards	○	Further increase availability of Low- and Very-Low Emission Vehicles*1	▶ P.27
Fuel injection implemented on eight models released worldwide in FY2007	○	Implement fuel injection on all scooters released in Japan	▶ P.32
Compliance for all models released in Japan in FY2007	○	Further expand compliance	▶ P.34
Complied with FY2011 Japanese fuel economy standards in all seven categories	○	Further improve fuel efficiency	▶ P.29
Improved fuel efficiency in fuel injection models	○	Continue improving fuel efficiency	▶ P.33
20% fuel efficiency improvement in EU55is generators	○	Further improve fuel efficiency	▶ P.35
Leased more fuel cell vehicles	○		▶ P.31
Introduction of new MCHP1.0 cogeneration model (22.5% increase in generation efficiency)	○	Continue expansion of product offerings/sales	▶ P.35
Elimination of hexavalent chromium: nearly complete Elimination of lead and lead alloys: near complete elimination of manufacturing with substances containing more than 0.35wt% lead.	○	Promote compliance with substances of concern guidelines	▶ P.37
Reduced per-unit CO <sub>2</sub> emissions by 12% (baseline: FY2001)	○	Ensure that suppliers reduce CO <sub>2</sub> emissions	▶ P.37
Reduced landfill waste 97% (baseline FY2001)	○	Ensure that suppliers reduce landfill waste	▶ P.37
403 suppliers (98%) certified	△	Promote ISO 14001 certification for all suppliers	▶ P.37
Reduced per-unit energy consumption by 29.8% (baseline: FY1991)	○	Per-unit energy consumption reduced 25.5%*2	▶ P.39
CO <sub>2</sub> emissions: 463,000 CO <sub>2</sub> tons	○	CO <sub>2</sub> emissions: 490,000 CO <sub>2</sub> tons	▶ P.39
Maintained zero landfill waste	○	Maintain zero landfill waste	▶ P.39
Waste recycling rate: 99.4%	○	Waste recycling rate: 99.0%*3	▶ P.40
Internally incinerated waste reduced 90.9% (baseline: FY1999)	○	Reduce internally incinerated waste 90% or more (baseline: FY1999)	▶ P.40
VOC emissions (automobiles): 33.0 g/m <sup>2</sup>	○	VOC emissions (automobiles): 34.0 g/m <sup>2</sup> *2	▶ P.41
Continued implementation by four main partners	○	Continue implementation by three main partners (two partners merged)	▶ P.43
CO <sub>2</sub> emissions: 104,769 CO <sub>2</sub> tons (transportation of completed automobiles)	○	CO <sub>2</sub> emissions: 101,382 CO <sub>2</sub> tons (transportation of completed automobiles)	▶ P.43
Enhanced promotion of Eco Drive program by distributing 500,000 leaflets	○	Expand Eco Drive program and its promotion	▶ P.46
Launched of 21 environmentally responsible Dream dealers (total: 87)	○	Dream dealer network expansion	▶ P.47
To raise awareness of Green Dealer initiative, delivered guidance on processing of end-of-life equipment and sheets for oil absorption	○	Promote environmental preservation at dealers	▶ P.47
Minimum 90% recyclability for all newly introduced or remodeled vehicles	○	Minimum 90% recyclability for all newly introduced or remodeled vehicles	▶ P.49
Automobiles: Maximum 1% chloride in ASR for all newly released or redesigned models	○	Automobiles: Maximum 1% chloride in ASR for all newly released or redesigned models	▶ P.49
Minimum 95% recyclability for all newly introduced or redesigned models	○	Minimum 95% recyclability for all newly introduced or remodeled vehicles	▶ P.50
Minimum 96.5% recyclability for all newly introduced or remodeled vehicles	○	Strengthened recycling system	▶ P.50
Expanded range of recycled parts and their recovery	△	Expand range of vehicles using recycled parts	▶ P.51
	○	Maintain recycling systems for automobiles	▶ P.53
Maintained recycling systems for automobiles and motorcycles	△	Maintain recycling systems for motorcycles To increase recycling, strengthen communications regarding plastic parts used	▶ P.55
CO <sub>2</sub> emissions: 11,839 CO <sub>2</sub> tons*5	△	CO <sub>2</sub> emissions for nine office buildings: 12,913 CO <sub>2</sub> tons*6	▶ P.57
Landfill waste generated: 291 tons*5	○	Reduce landfill waste generation for nine office buildings to 502 tons*6	▶ P.57

\*4 Polyvinyl chloride

\*5 Total for Aoyama, Wako, Shirako, Yaesu

\*6 Total for Aoyama, Wako, Shirako, Yaesu, Sapporo, Sendai, Nagoya, Osaka, Fukuoka

Attainment date	Notes
Late 1998	<p>*1 Sodium azide: Chemical symbol NaN<sub>3</sub>, this substance provides the explosive force required to deploy automobile airbags. However, when undeployed airbags are crushed in end-of-life vehicle processing, the toxic vapors released can endanger the health of workers.</p> <p>*2 Wire harnesses: Automobiles include a network of some 1,000 wires. Through the systematic arrangement of these wires, associated terminals and connectors, the vehicle is made easier to assemble.</p> <p>*3 Japan target</p> <p>*4 Minimal amounts used in high-intensity discharge headlights and navigation system screens</p> <p>*5 By 2001 Honda had announced its intention to achieve certification for most production vehicles as Japan's Ministry of Land, Infrastructure and Transport Low-Emissions Vehicles by 2005. However, as more demanding emissions standards were introduced in October 2003, Honda adjusted its targets and is now striving to achieve compliance with these new standards by achieving certification as Low-Emissions Vehicles and Ultra-Low Emissions Vehicles.</p> <p>*6 Targets apply in Japan, North America, Europe and Thailand.</p> <p>*7 Worldwide targets</p>
January 2005	
Before 2001	
FY2001	
FY2004	
December 2005	
FY2002	
Late 1998	
—	
—	
FY2002	
FY2006	
March 2002	
July 2000	

## Targets Announced, Progress

### Energy Savings in Production (announced in 1998)

Target	Progress as of FY2007	See
Reduce per-unit energy consumption 30% by FY2011 (baseline: FY1990)	29.8% reduction	▶ P.39

### Environmental impact of all Japan-made models (announced in 2005)

Target	Progress as of FY2007	See
Automobiles	Hexavalent chromium: elimination by December 2005* Nearly complete, with the exception of certain mini-cars, special-equipment vehicles	▶ P.49
Motorcycles	Hexavalent chromium: elimination by December 2005 Attained	▶ P.50
Power Products	Hexavalent chromium: elimination by December 2006 Nearly complete, with the exception of anti-corrosion treatment of marine outboards	▶ P.50

\* Except for some components of the S2000

# Environmental Management

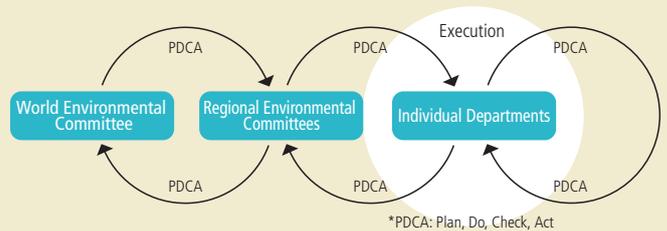
Honda has developed an institutional framework to put into practice the principles of environmental conservation as defined in the Honda Environment Statement. Honda's environmental management system, which mandates that environmental conservation initiatives be planned and executed appropriately, is described here.

## Policy

Based on mid-term policies determined by the Executive Council, environmental action plans are developed by individual departments. These plans are then discussed and approved by Regional Environmental Committees. Next, individual departments take responsibility for implementation based on the commitments specified in their plans. Results are evaluated by Regional Environmental Committees, and on the basis of their guidance plans and targets are developed in each region (Japan, North America, South America, Europe/Middle East/Africa, Asia/Oceania, and China) completing the PDCA\* cycle at the regional level. Issues considered to be global in scope are referred to the World Environmental Committee, whose deliberations are reflected in mid-term policy statements.

A hallmark of Honda environmental initiatives is that planning and execution are not delegated to specialists; rather, associates in all departments are involved directly. All associates are engaged with environmental issues as part of their duties.

Environmental Preservation Based on the PDCA Cycle



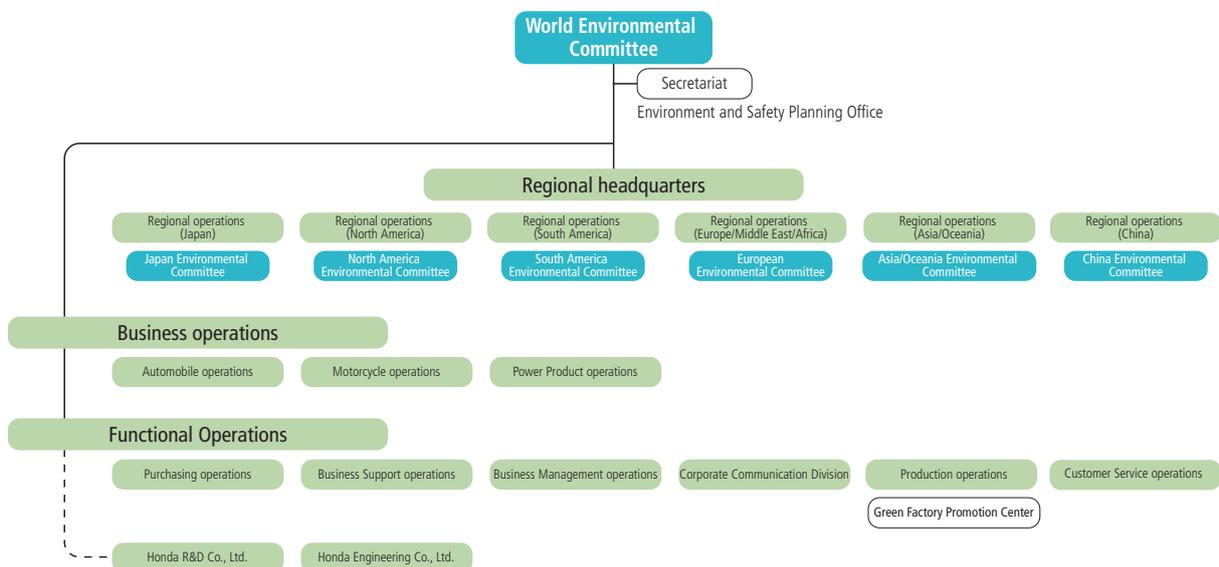
## Organization

In December 1991 Honda created what is now the Japan Environmental Committee to play a central role in addressing environmental issues in Japan. Subsequently, the organizational framework was extended to North America, South America, Europe/Middle East/Africa, Asia/Oceania and China. In March 1995 the World Environmental Committee was established to frame and promote global plans. Efficiently focusing on issues common to the global organization, the company initiated the Green Factory project\*1 in 1997 and the LCA Project in 2000. The Green Factory Promotion Center\*2 was established in 2004 to intensify environmental

initiatives in the production domain and advance the Green Factory initiative.

- \*1. The Green Factory project was initiated to promote manufacturing appropriate to a recycling-based society. In the context of the current Green Factory initiative, energy conservation and waste reduction measures are being implemented at Honda factories worldwide.
- \*2. The Green Factory Promotion Center oversees environmental initiatives in the production domain, supervising and coordinating environmental measures implemented at Honda factories. The center serves as a secretariat for internal environmental audits conducted by Honda factories and monitors the administration of environmental management throughout the organization.

Global Environmental Preservation Organization



## Roles

### World Environmental Committee

The World Environmental Committee considers global plans in accordance with our mid-term policy, determines environmental policies, and conducts annual reviews of their implementation.

### Japan Environmental Committee

The Japan Environmental Committee is responsible for ensuring that preservation initiatives undertaken in Japan are executed to the highest standards. It reviews the annual PDCA cycle of individual departments and establishes and monitors overall targets. It also establishes new policies appropriate for individual departments, striving to maintain and enhance environmental initiatives covering the entire life cycle of all Honda products.

### Sales Domain

Associates in the Sales domain are responsible for providing automobiles, motorcycles, power products and parts to meet the expanding demand for environmentally responsible products, facilitating the proper disposal of end-of-life products and parts recycling, and encouraging dealers to implement appropriate environmental conservation measures.

### Administration

The Administration Operations domain is comprised of the

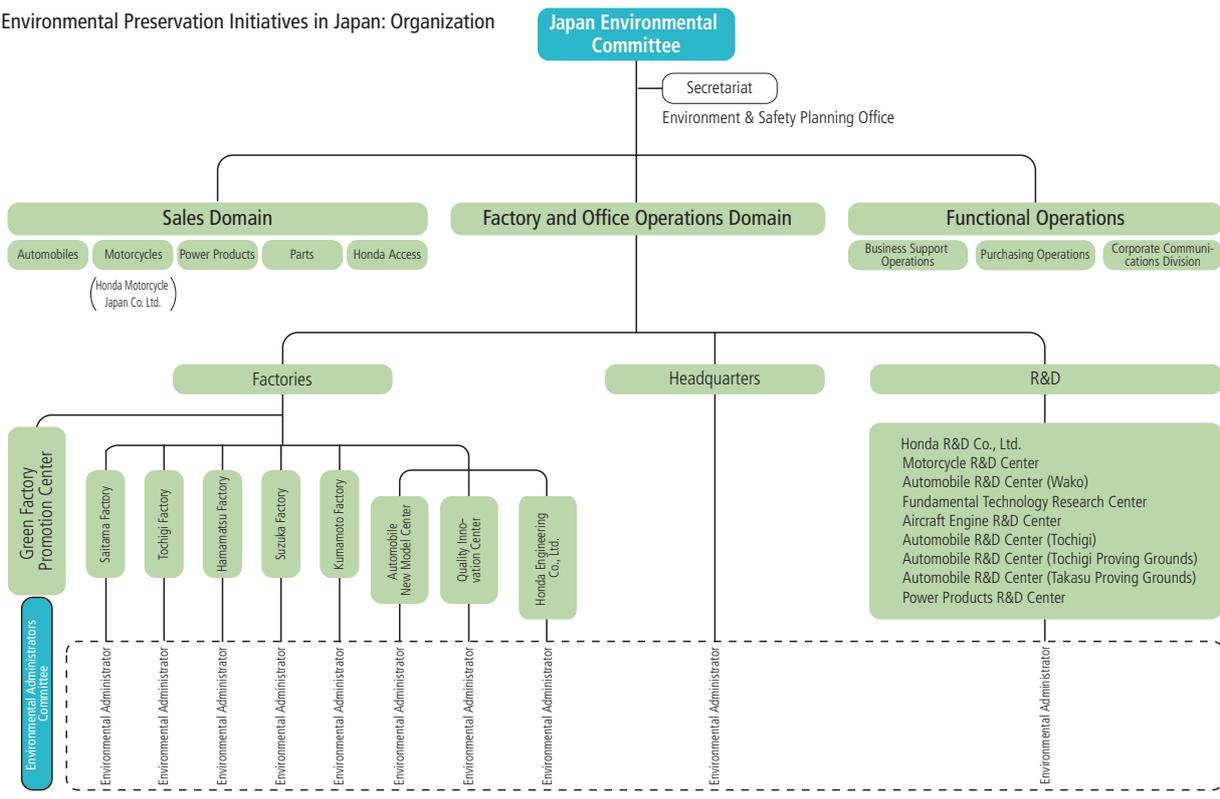
administrative departments within Honda factories and offices. An Environmental Administrator\* at each factory or office takes responsibility for environmental issues at that facility, taking the lead in determining and implementing policy for the Administration Operations domain in coordination with the Environmental Administrators Committee. The Green Factory Promotion Center is in charge of communicating organization-wide policies to factories and monitoring compliance with environmental policies.

\* Environmental Administrators are responsible for environmental preservation and environmental management systems at their facilities.

### Functional Operations

Functional Operations has a broad mission. Business Support Operations handles environmental training and philanthropic initiatives. Its Administration Division promotes the use of environmentally responsible vehicles on company business. The Human Resources Division provides environmental training for associates. The Corporate Communications Division disseminates information on Honda's environmental initiatives to the public. Purchasing Operations promotes Green Purchasing, striving to maximize the purchasing of materials and parts with lower environmental impact. In addition, there are various projects and centers that deal with other broad issues.

Environmental Preservation Initiatives in Japan: Organization



## Environmental Management at Honda Facilities (ISO 14001 and EMAS)

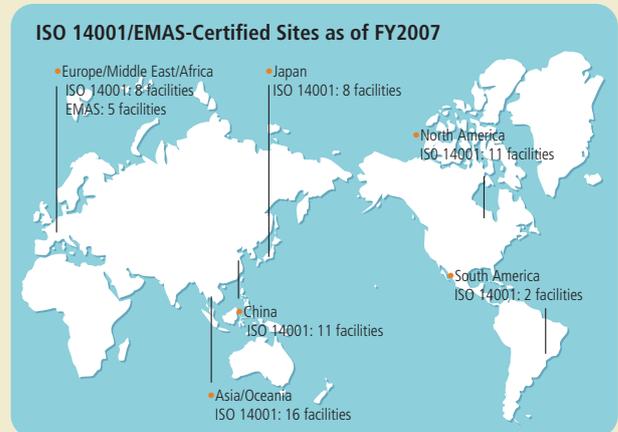
Along with the establishment of organization-wide environmental management, each of Honda's facilities is introducing environmental management systems to continuously improve their ability to protect the environment and to more thoroughly mitigate the environmental impact of substances of concern. Honda has been proactive in acquiring environmental management ISO 14001 certification for its production and other facilities. In Japan, all of Honda's production facilities had acquired certification by FY1998. Further, as a part of the Green Office initiative, the Honda Motor headquarters building in Aoyama acquired ISO 14001 certification in 1999, followed by six other regional offices in 2001 and the new Wako Building in 2005.

We are also working toward certification of all major facilities in North America, South America, Europe/Middle East/Africa, Asia/Oceania and China. In Europe, we are working to promote acquisition of the EU's Eco Management and Audit Scheme (EMAS).

Honda's ISO 14001-certified facilities (shown on the adjacent map) total 56 sites as of the end of FY2007. There are currently five EMAS-certified facilities in Europe. As shown in the adjacent table, six additional facilities acquired ISO 14001 certification in FY2007. We will continue working to acquire and retain ISO 14001 and EMAS certification throughout the Honda Group. In pursuing these initiatives, we will continue to apply the PDCA cycle, striving to reduce the environmental impact of our operations.

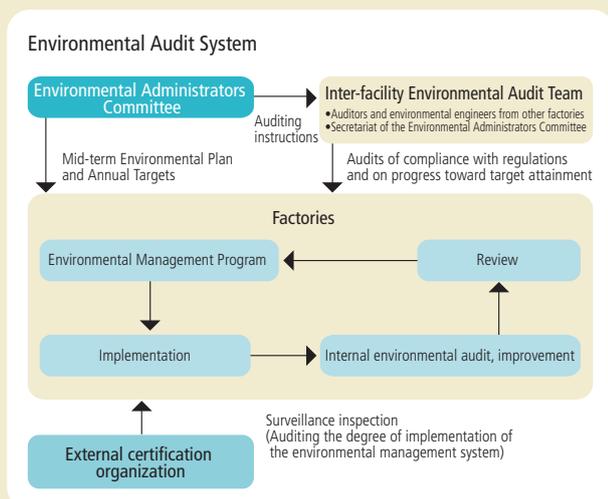
### Sites Acquiring ISO 14001 Certification in FY2007

Facility	Region	Activities	Date of Certification	
Sundiro Honda Motorcycle Co., Ltd.	Tianjin Plant	China	Motorcycle manufacturing	Apr. 2006
	Shanghai Plant	China	Motorcycle manufacturing	Apr. 2006
Dongfeng Honda Auto Parts Co., Ltd.	China	Automobile parts manufacturing	June 2006	
Honda Automobile (China) Co., Ltd.	China	Automobile manufacturing	Nov. 2006	
Dongfeng Honda Automobile Co., Ltd.	China	Automobile manufacturing	Dec. 2006	
Jialing-Honda Motors Co., Ltd.	China	Power Products manufacturing	Dec. 2006	



## Environmental Audits

Environmental conservation initiatives at facilities in Japan are implemented in accordance with an environmental management program based on annual targets and the Mid-term Environmental Plan, determined by the Environmental



Administrators Committee. To verify that the environmental management systems are appropriately implemented and are continuously being improved, internal environmental audits and renewal/surveillance inspections by external certification organizations are conducted at our factories and offices. The internal environmental audits conducted in FY2007 led to 77 recommendations and advisories, and 195 findings. The external surveillance inspections conducted in FY2007 led to 21 minor recommendations and 122 findings. We responded promptly with corrective action.

Further, engineers and auditors are dispatched by the Environmental Administrators Committee to visit other facilities to confirm their compliance and the level of progress made in achieving their targets for environmental conservation.\* The Inter-Facility Environmental Audit is conducted by engineers and auditors from other factories in accordance with instructions provided by the Environmental Administrators Committee. In FY2007 these audits were conducted from June through September 2006.

\* In these peer audits, one factory audits another. Similar peer audits are exchanged by non-production facilities and divisions within non-production facilities.

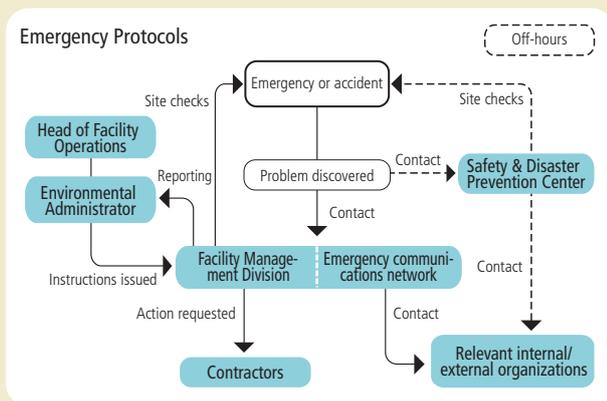
## Environmental Risk Management

### Product Recalls

As necessary, Honda conducts product recalls in accordance with the guidelines of our Quality Committee. In FY2007 no environment-related product recalls were required.

### Emergency Protocols

In anticipation of accidents or emergencies that could cause environmental pollution, each factory and department has clearly defined procedures for the prevention or mitigation of pollution. Emergency drills and training events are held regularly to increase emergency preparedness. There were no environment-related emergencies in FY2007.



### Compliance with Laws and Regulations

All Honda facilities strive for improved environmental conservation based on the Honda Environment Statement, introducing environmental management systems throughout the organization. Further, Honda abides by its own voluntary standards, which are more stringent than national or regional laws and regulations.

In April 2003, as part of the effort to strengthen its corporate governance system, Honda established the Honda Conduct Guidelines. In the guidelines, compliance is defined as "compliance with laws, company rules and social norms," and environmental conservation is defined as the "proper processing of waste and pollutants," "efficient use of natural resources and recycling," and "legally required measurements, recording, and reporting." Upon the introduction of the guidelines, a director was nominated as compliance officer, and we have continued to work to strengthen compliance and risk management frameworks under the supervision of the director in charge of each part of the organization.

In FY2007 in Japan, several laws relating to the prevention of illness related to asbestos were revised (Waste Disposal and Public Cleansing Law, Air Pollution Control Law, Building Standards Law). Further, the Law for Compensation of Victims

of Asbestos-Related Illness was introduced. In accordance with these laws, Honda policy is to comply with the financial responsibilities mandated under tax regulations and to abide by all relevant laws. Beyond these legal requirements, Honda is making every effort to prevent asbestos-related illness.

There were no environment-related lawsuits filed against Honda in FY2007. We did receive 12 complaints or requests concerning traffic conditions in the vicinities of our dealers. We responded promptly and reminded all personnel concerned of their responsibility to be proactive in resolving such issues and preventing their recurrence.

Further, an accident at the Suzuka Factory during water pipe work led to a pipe breaking and discharge into the local water supply. We responded promptly, conferring with Suzuka City water authorities and taking all appropriate measures.

In the future, we plan to prepare even more carefully for such work, reviewing the positioning of valves connected to the public water supply and taking all due care to prevent any recurrence.

Continuing our review of the issue concerning traffic conditions in the vicinity of the Automobile R&D Center (Tochigi), we proceeded under the guidance of local authorities to confirm the efficacy of test measures in place to mitigate congestion, and testing is to be complete this year. We also erected an overhead pedestrian bridge near the truck entrance/exit at the Saitama Factory, among other new initiatives undertaken to improve the environment around our facilities and ensure respect for local laws.

### Other Issues

Seeking to coexist harmoniously with societies everywhere, Honda is currently promoting its Green Factory initiative. We have always been proactive in environmental conservation. We seek to earn the ever-greater trust of communities that host our facilities. In addition to continuing our monitoring of soil and groundwater, we have increased the number of observation wells at our factory sites. We were able to confirm that substances of concern used at the factories have been contained within our premises. We will continue to monitor groundwater at our facilities and publish the results in our environmental annual reports and on our website.

## Promotion of Life Cycle Assessment (LCA)

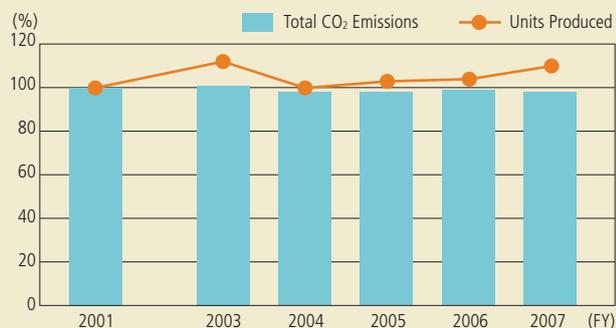
### Honda LCA

We established the Honda LCA System in Japan in March 2002. Using this system, we set annual CO<sub>2</sub> emissions reduction targets for each department using individual FY2001 departmental baselines. We are instituting a PDCA cycle to reduce our environmental impact in a quantitatively verifiable manner.

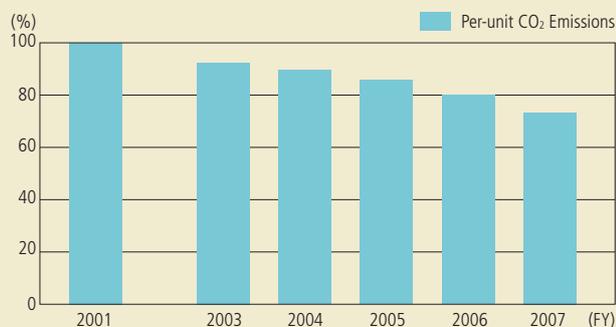
In FY2007 each domain of our operations in Japan (production, purchasing, sales/service and logistics) applied the Honda LCA System to collect data and calculate CO<sub>2</sub> emissions generated by their business operations.

The results showed that CO<sub>2</sub> emissions decreased some 1% and unit production volume increased approximately 5% in FY2007 (baseline: FY2006). In addition, carbon emitted as a proportion of revenue has been reduced each year since FY2001. We will collect and process this data, working to reduce the environmental impact of our operations.

### CO<sub>2</sub> Emissions Generated by Honda Business Operations



### CO<sub>2</sub> Emissions as a Proportion of Revenue

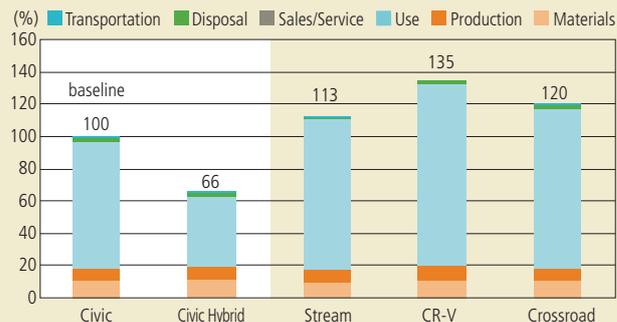


Note 1: CO<sub>2</sub> emissions according to Honda calculations  
 Note 2: CO<sub>2</sub> tons/100,000,000 JPY  
 Note 3: FY2001 = 100%

### Product LCA

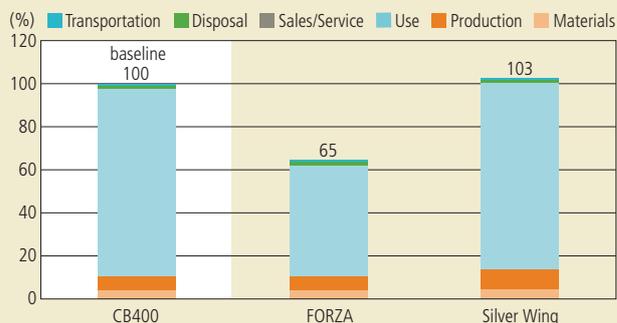
In FY2007 we introduced a new product LCA system to represent the volume of CO<sub>2</sub> emissions associated with the life cycle of a single vehicle, from the procurement of raw materials to disposal. The adjacent graphs display calculations for major automobile and motorcycle models introduced in the last year. The results provide confirmation of the importance of the use stage in CO<sub>2</sub> emissions. Using this system, we will be able to more accurately assess the volume of CO<sub>2</sub> emissions other than those generated by vehicle exhaust, reinforcing CO<sub>2</sub> emissions reduction efforts.

### LCA Results for Major Automobile Models Released in FY2007



Note 1: CO<sub>2</sub> emissions according to Honda calculations  
 Note 2: The strategic vehicles Civic and Civic Hybrid are treated as the standard. The Civic is treated as the baseline and accorded a value of 100.  
 Note 3: Calculations based on a vehicle lifetime range of 100,000 kilometers

### LCA Results for Core Motorcycle Models Introduced in FY2007



Note 1: CO<sub>2</sub> emissions according to Honda calculations  
 Note 2: The strategic vehicle CB400 is treated as the baseline and accorded a value of 100.  
 Note 3: Calculations based on a vehicle lifetime range of 50,000 kilometers

## Environmental Accounting

Honda is engaged in identifying the cost of environmental conservation efforts, with the following objectives:

- Environmental accounting is to be used in support of management decision-making in environmental affairs.
- Environmental accounting provides society a means of evaluating Honda's actions.

The following table shows the environmental conservation costs incurred by Honda in FY2007.

Environmental conservation-related research and development costs and facility environmental conservation costs have increased over the previous year.

### Costs and Effects of Environmental Conservation Initiatives in FY2007

(Units: millions of yen)

Category		Outline of Main Initiatives	Investment	Expenses	Effects
Business area costs	Pollution prevention costs	•Prevention of air, water and soil pollution	1,520	2,111	•Total CO <sub>2</sub> emissions: 463,000 CO <sub>2</sub> tons 37,000 tons under target See p.39
	Global environment conservation costs	•Prevention of global warming and ozone layer depletion; other environmental conservation	2,198	375	
	Recycling costs	•Waste processing, separation, reduction, elimination and recycling	835	1,245	
Upstream/downstream costs		•Green Purchasing (balance) •Collection, recycling, reuse and proper disposal of products manufactured and sold •Industry organization and other membership fees	2	1,033	•Internally incinerated waste: 1,400 tons Reduced by 700 tons from the previous fiscal year See p.40
Management costs		•Associate environmental training •Implementation, operation and acquisition of certification for environmental management systems •Monitoring and measurement of environmental impacts •Management of organizations responsible for environmental conservation	0	1,089	•Per-unit VOC emissions: 33.0 g/m <sup>2</sup> 1.8 g/m <sup>2</sup> lower than target See p.41
Research and development costs		•Research and development on products contributing to environmental conservation •Research, development and design for reduction of environmental impacts throughout the product life cycle	25,190	140,950	
Philanthropic initiative costs		•Environmental improvement measures, including ecosystem protection, greenification and natural landscape conservation •Support and distribution of information to local citizens •Donations to and support of organizations engaged in environmental conservation •Disclosure of environmental information	0	678	
Environmental damage costs		•Recovery of polluted soil	0	3.9	

1) Scope of calculations:

- Companies covered: Honda Motor Co., Ltd., Honda R&D Co, Ltd., Honda Engineering Co., Ltd.
- Domains covered:

- All domains impacting the life cycle of Honda products
- Period: April 1, 2006 to March 31, 2007

2) Due to the difficulty in certain situations of deriving precise figures, some figures are estimates.

3) Some calculations are based on reference materials, particularly guidelines and guidebooks published by Japan's Ministry of the Environment.

4) Costs are quoted on a cash-flow basis with depreciation costs excluded.

5) For further information on the effects of initiatives, please refer to other sections of this annual report.

## Environmental Training

### Environmental Training for New Associates

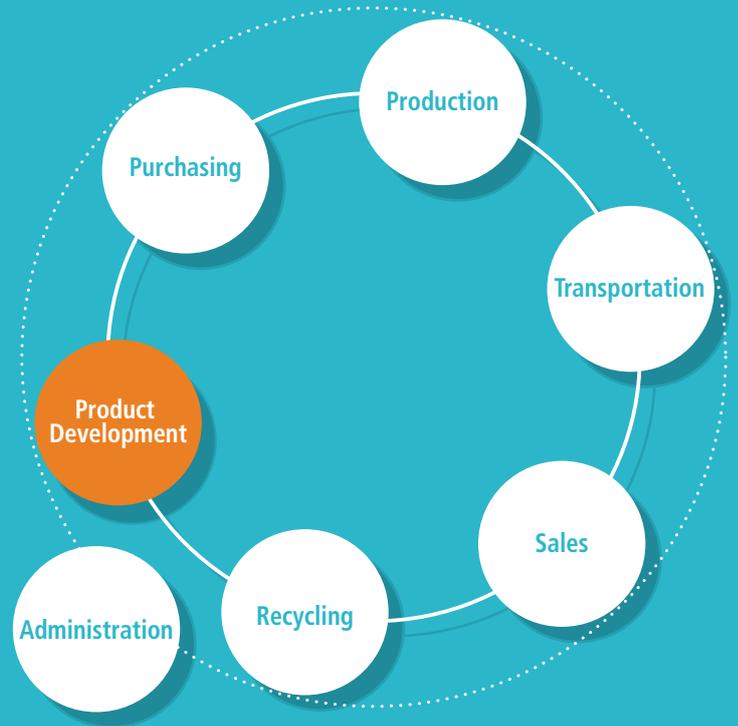
As part of Honda's training curriculum for all new hires, environmental training programs are provided to ensure that associates recognize their responsibilities for environmental conservation as an integral part of their duties. Training focused on Honda's environmental and safety policy is provided to new associates to help deepen their environmental awareness and their recognition of the importance of the responsibilities of a mobility manufacturer. Immediately after joining Honda, new associates visit Honda plants to receive presentations about Honda's environmental philosophy and initiatives, and to get hands-on experience in environmental measures implemented in automobile and motorcycle manufacturing. Environmental information—including description of environmental initiatives, information on product environmental performance, and information on laws and regulations—is also delivered to associates via the company intranet.

At NH Circle Conventions associates give presentations on environmental issues, conservation of energy and other resources, and recycling. Winning presentations are publicized as good examples for all associates. As the severity and global scope of environmental problems become more obvious, Honda is striving to make associates more aware of the environment and encouraging them to voluntarily act in an environmentally responsible manner in their professional and personal lives.

### Environmental Training Based on the Environmental Management Systems

Every factory and office develops plans for education and training programs on the basis of their environmental management system and holds regular training events for all personnel, operators engaged in environmentally sensitive operations, and internal environmental auditors.

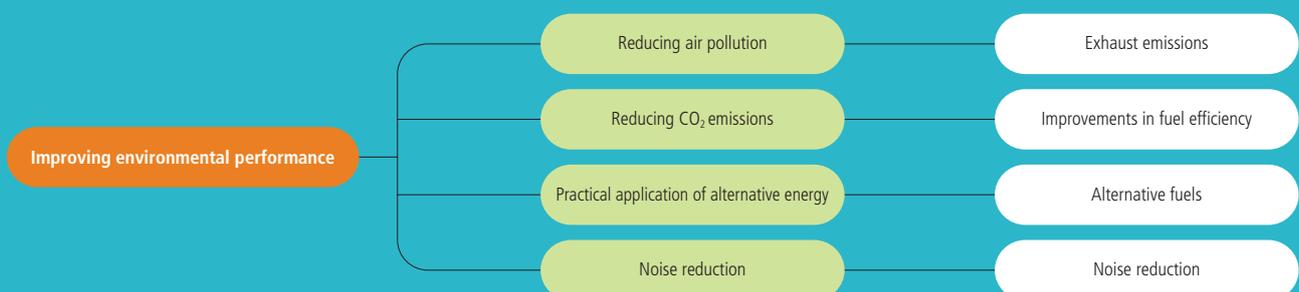
# Product Development



## Setting High Standards, Advancing Technologies for Future Generations

Honda prioritizes initiatives that focus on the product use stage, where the greatest reductions in the environmental impact of a product during its life cycle can be achieved. We are committed to attaining ambitious voluntary targets, including those for cleaner exhaust emissions, higher fuel efficiency (to minimize CO<sub>2</sub> emissions), and practical applications of alternative energy, striving for the harmonious coexistence of human beings, the environment and our products.

### Major initiatives in product development



## Product Development

# Automobiles



While striving to achieve cleaner exhaust emissions and improve fuel efficiency for Honda automobiles, we are also working to develop products that use alternative fuels.

Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>Continue to increase availability of Low-Emissions and Very Low-Emission Vehicles</li> <li>Seek to comply with FY2011 regulations for average fuel economy for vehicles in each weight category</li> </ul>	<ul style="list-style-type: none"> <li>Seven additional models and 15 types approved as Low-Emissions or Very Low-Emissions Vehicles for a total of 26 models and 58 types, according to Japan's Ministry of Land, Infrastructure and Transport 2005 standards.</li> <li>Complied with FY2011 regulations for average fuel efficiency for vehicles in each weight category</li> </ul>

\*The new regulations introduced by Japan's Ministry of Land, Infrastructure and Transport, created to encourage automakers to provide low-emissions vehicles, established two categories of vehicles with particularly low HC and NOx emissions: Low-Emissions Vehicles with emissions 50% lower than the levels required under the 2005 exhaust emissions standards, and Very Low-Emissions Vehicles with emissions 75% lower than the levels required by the 2005 standards.

## Exhaust Emissions

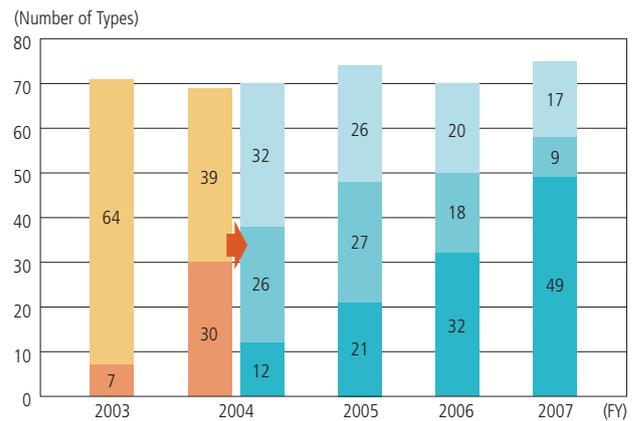
Honda continues to prioritize cleaner exhaust emissions from gasoline vehicles. We are working to reduce the levels of carbon monoxide (CO), hydrocarbons (HC) and nitrogen oxides (NOx) contained in exhaust emissions. In FY2007 we achieved our target of reducing total HC and NOx exhaust emissions 89.9% (baseline: FY1996).

As early as FY2004, Honda complied with the 2005 exhaust emissions standards for all models and has since expanded the number of models certified as Low-Emissions Vehicles and Very Low-Emissions Vehicles. Among vehicles released in FY2007, seven models and 15 types were certified as Very Low-Emissions Vehicles, for a total of 26 models and 58 types certified as Low-Emissions Vehicles. Going forward,

Honda will expand the lineup of vehicles certified as Low-Emissions Vehicles and as Very Low-Emissions Vehicles and make automobile exhaust emissions even cleaner.

### Types Complying with Exhaust Emissions Standards or Earning Special Certification

- Excellent Emissions Vehicles (emissions 50% lower than 2000 regulations)
- Ultra-Low Emissions Vehicles (emissions 75% lower than 2000 regulations)
- Complies with 2005 regulations
- Low-Emissions Vehicles (emissions 50% lower than 2005 regulations)
- Very Low-Emissions Vehicles (emissions 75% lower than 2005 regulations)

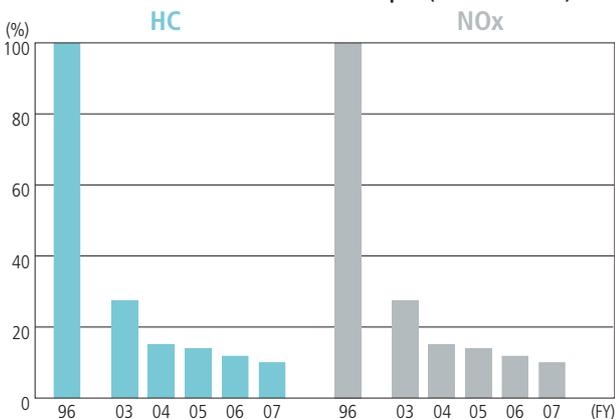


Note 1: Since a new low-emissions vehicle certification program under the 2005 exhaust emissions standards was introduced on October 1, 2003, the numbers approved under the 2000 exhaust emissions standards and under the 2005 exhaust emissions standards are both indicated in this table.

Note 2: Japan's Ministry of Land, Infrastructure and Transport has instituted this certification system to encourage manufacturers to provide low-emissions vehicles. Low-emissions vehicles with HC and NOx emissions levels below the 2000 exhaust emissions standards are classified into three categories for certification:

- 75% lower than the standards: "Ultra"
- 50% lower than the standards: "Excellent"
- 25% lower than the standards: "Good"

### Trend of Total HC and NOx Emissions in Japan (FY1996=100%)



Note 1: Since a new low-emissions vehicle certification program under the 2005 exhaust emissions standards was introduced in 2003, FY2004 total emissions of HC and NOx of models subject to the 2000 exhaust emissions standards, and of older models, are calculated based on the 10-15 mode. For models subject to the 2005 exhaust emissions standards, HC and NOx emissions are calculated based on the new test mode introduced with the 2005 regulations. Further, for those models subject to the 2005 exhaust emissions standards, total emissions of HC are calculated as non-methane hydrocarbon (NMHC).

Note 2: Total emissions in Japan (excluding emissions from transport trucks and light transport trucks)

**Models/Types and Sales Results for Vehicles Certified as Low-Emissions Vehicles**

Honda has endeavored to expand the number of models that comply with the 2005 exhaust emissions standards and are certified by the Ministry of Land, Infrastructure and Transport as low-emissions vehicles.

Of the eight models introduced in FY2007, seven types—the Civic (new 2.0-liter type), Stream, Partner (new 4WD type), CR-V, Edix (new 2.4-liter type), Elysion Prestige and Crossroad—were certified as Very Low-Emissions Vehicles. Further, unit sales of Honda vehicles that comply with the 2005 exhaust emissions standards of the Ministry of Land, Infrastructure and

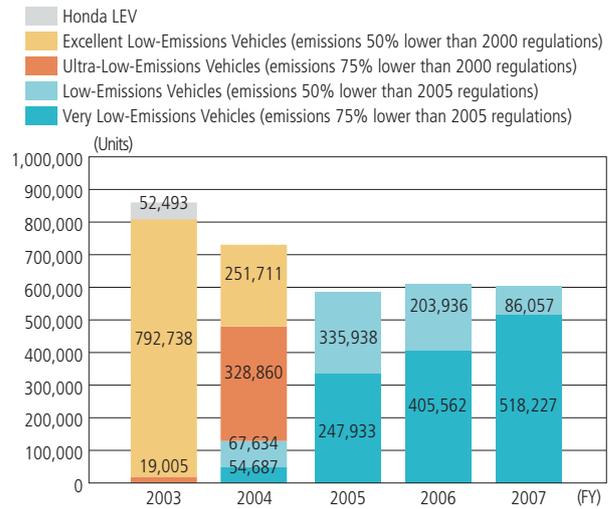
**•Low-Emissions Vehicles Released in FY2007**

(Certified under Japan’s Ministry of Land, Infrastructure and Transport 2005 standards)

Very-Low Emissions Vehicles (with emissions 75% lower than 2005 regulations): 7 vehicles	Civic (new 2.0-liter type)
	Stream
	Partner (new 4WD type)
	CR-V
	Edix (new 2.4-liter type)
	Elysion Prestige
	Crossroad

Transport and are certified as low-emissions vehicles totaled 604,284 units in FY2007, accounting for 87.4% of Honda’s total unit sales in Japan (86.4% of passenger-car unit sales).

**•Sales Trends**



Note: After FY2005 only vehicles certified as Low-Emissions Vehicles under the 2005 exhaust emissions standards are included.

**Case Study**

**Cleaner Emissions in Major New Vehicles**

**•Crossroad**

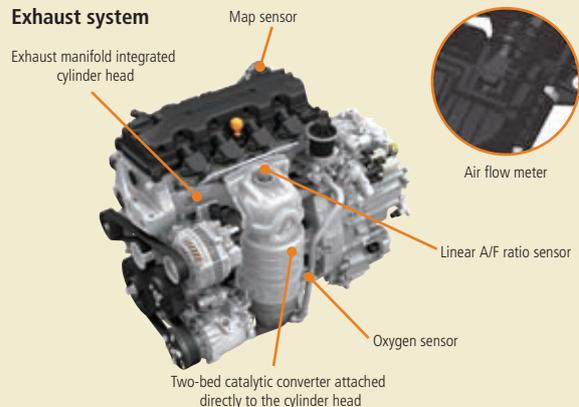
All types of the Crossroad, released in February 2007, with 2.0-liter or 1.8-liter i-VTEC engines were certified by Japan’s Ministry of Land, Infrastructure and Transport as Very Low-Emissions Vehicles.

Among technologies designed to achieve cleaner exhaust emissions, the Crossroad features an air flow meter and a high-precision air-fuel ratio control system

with a linear air-fuel ratio sensor and an oxygen sensor. Further, the exhaust manifold is integrated with the cylinder head, and the close-coupled two-bed catalytic converter substantially reduces combustion gas heat loss, enabling earlier activation of the catalytic converter. This substantially improves purification after a cold start for enhanced environmental performance.



Crossroad 2.0X



## Improvements in Fuel Efficiency

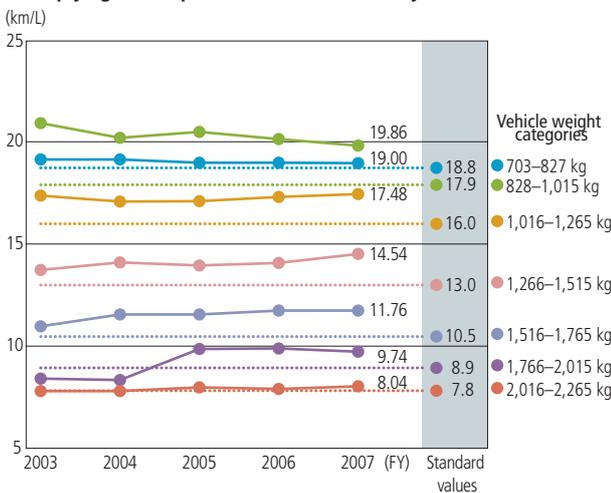
Honda has introduced a range of technologies to improve fuel efficiency and reduce CO<sub>2</sub> emissions contributing to global warming. As a result, the Civic 2.0GL, Stream, Partner (4WD), CR-V, Elysion Prestige\*, and Crossroad models introduced in FY2007 all attained the fuel efficiency mandated by FY2011 standards.

\* Certain types excluded

### Average Fuel Efficiency by Weight Category

Levels mandated by FY2011 fuel efficiency standards have been attained for all weight categories. In FY2006 the following progress was made:

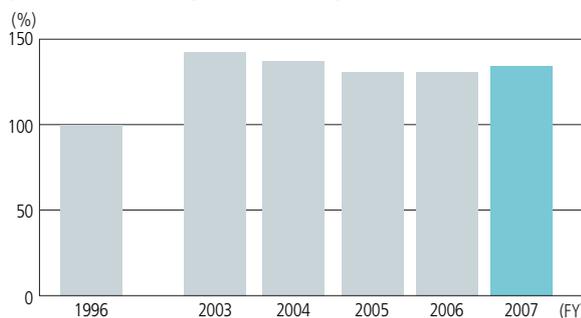
#### • Trends in Average Fuel Efficiency by Category for Vehicles Complying with Japan FY2011 Fuel Efficiency Standards



### Average Fuel Efficiency

The average fuel efficiency of Honda automobiles was improved approximately 34.5% (baseline: FY1996).

#### • Improvement in Average Fuel Efficiency\* (FY1996=100%)



\* Average fuel efficiency for Japan-market vehicles

### Types Complying with FY2011 Fuel Efficiency Standards and Units Shipped\*

In accordance with an amendment to the Energy Saving Law of Japan, fuel efficiency standards for FY2011 were announced. Honda is striving to expand the lineup of the number of vehicle types that exceed these standards. Of the vehicles sold in FY2007, six models (13 types) attained for the first time the FY2011 fuel efficiency standards. A total of 28 models (61 types) have now attained the standards. Also,

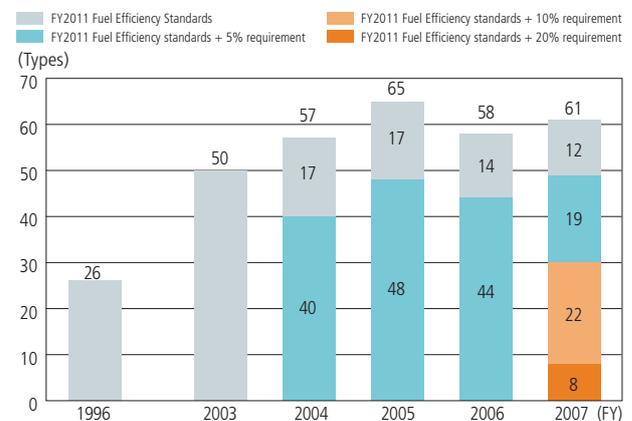
three models (4 types) were newly certified as vehicles that meet the FY2011 Fuel Efficiency Standards + 5% Requirement, for a total of eight models (19 types). Further, 12 models (22 types) were newly certified as vehicles that meet the FY2011 Fuel Efficiency Standards + 10% Requirement and five models (8 types) were newly certified as vehicles that meet the FY2011 Fuel Efficiency Standards + 20% Requirement. The number of vehicles shipped in FY2007 that attained these standards totaled 636,937 units, approximately 90% of all Honda vehicles shipped in Japan.

\* Shipping figures reported to the Ministry of Land, Infrastructure and Transport and the Ministry of Economy, Trade and Industry

#### • All-New and Remodeled Vehicles Introduced in FY2007 Attaining FY2011 Standards

FY2011 Fuel Efficiency Standards + 10% requirement 4 models	Stream (FF)
	Partner (new 4WD)
	CR-V
	Crossroad (2.0-liter 4WD)
FY2011 Fuel Efficiency Standards + 5% requirement 2 models	Stream (1.8-liter 4WD)
	Crossroad (FF)
FY2011 Fuel Efficiency Standards 4 models	Civic (new 2.0-liter)
	Stream (2.0-liter 4WD)
	Elysion Prestige (excluding FF)
	Crossroad (1.8-liter 4WD)

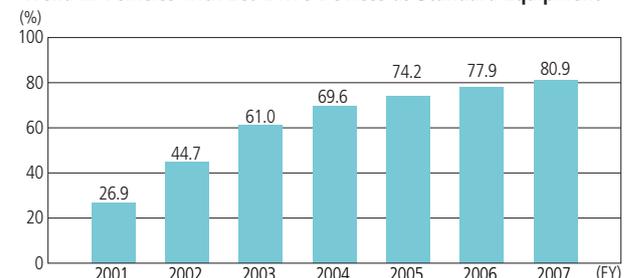
#### • Trend in the Number of Types Attaining FY2011 Fuel Efficiency Standards



### Standard Eco Drive Devices

Many Honda vehicles come standard with Eco Drive devices, such as fuel efficiency meters. As of March 2007, 20 models were equipped with these devices, accounting for approximately 80.9% of all Honda vehicles sold in Japan in FY2007.

#### • Trend in Vehicles with Eco Drive Devices as Standard Equipment



Case Studies

Improved Fuel Efficiency in Major Vehicles

•Stream

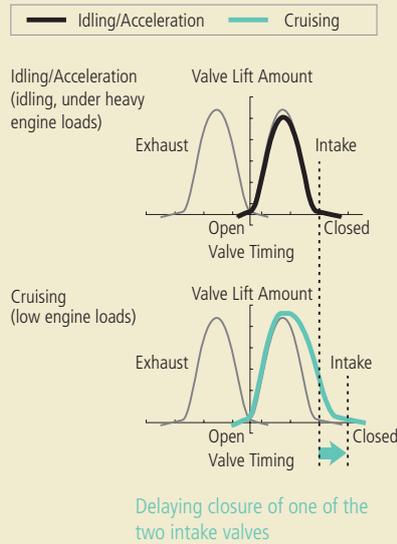
July 2006 saw the release of the second generation of the Stream minivan, first introduced in 2000, with a new 2.0-liter *i*-VTEC engine. The new engine improves on Honda's original VTEC technology to allow the engine to retard intake valve closure timing in low engine-load driving conditions (cruising). Valve control is complemented by a drive-by-wire system that provides optimum throttle valve control, significantly reducing pumping losses. Piston oil jets and a high compression ratio provide superior energy efficiency in cruising and significantly improved fuel efficiency. The metal skirts on the engine's pistons are impregnated with molybdenum sulfide (a

world's first), along with other measures for reducing engine friction. The 2.0-liter *i*-VTEC engine also features a torque converter-equipped CVT that allows lockup at nearly all engine speeds except during cold starts, and achieves a fuel efficiency of 14.8 km/liter\*<sup>1</sup>, complying with the requirements of Japan's Ministry of Land, Infrastructure and Transport FY2011 fuel efficiency standards + 10% certification.\*<sup>2</sup>

\*1 Fuel efficiency of 2.0-liter FF vehicle tested in 10-15 mode (Japan's Ministry of Land, Infrastructure and Transport calculations)

\*2 The 2.0-liter 4WD vehicle attains FY2011 fuel efficiency standards.

•Valve timing image



•Throttle/Intake Valve Control in Cruising Mode

Throttle valve opened wide for smooth running

After reaching bottom, the piston goes back up while the intake valve remains open.

Some of the inhaled intake gas is driven back into the intake tract before the intake valve closes. The intake gas volume is optimized for cruising.

Stream RSZ

•CR-V

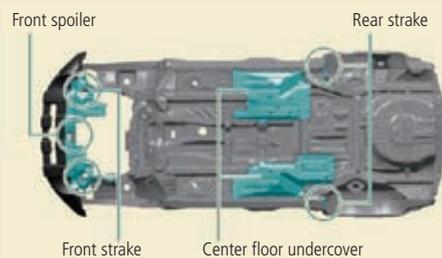
The all-new CR-V, introduced in the October of 2006, features an aerodynamically efficient body and strategic placement of aerodynamic parts on the underside of the body for a 10% reduction in wind resistance compared to the previous model. The improved aerodynamics provides

outstanding high-speed stability and a superior fuel efficiency of 12.2 km/liter.\*

\* Fuel efficiency of 2.4-liter vehicle tested in 10-15 mode (Japan's Ministry of Land, Infrastructure and Transport calculations)



•Placement of aerodynamic underbody parts





## Alternative Fuel Vehicles

### Fuel Cell Vehicles

As of March 2007, Honda had delivered 11 fuel cell vehicles to customers in Japan and 23 in the U.S. We are now developing a next-generation fuel cell vehicle to be released in 2008 in both markets. We believe that in order to achieve full-scale commercialization of fuel cell vehicles, cold start capability must be improved, vehicle range must be extended and the vehicles must be made more practical, with larger and more comfortable interiors. Working to advance our technology to achieve these goals, Honda presented a new fuel cell vehicle design concept, the FCX Concept, at the 2005 Tokyo Motor Show. Then, in September 2006, we unveiled a fully operational prototype and held test drives at a range of events to demonstrate the vehicle's performance. To improve water management in the fuel cell stack, which is the heart of a fuel cell vehicle, we have implemented a revolutionary V Flow structure. By allowing water to be discharged from the fuel cell stack vertically, with the help of gravity, we have overcome a major challenge. The new structure features thinner cells, resulting in a more compact fuel cell stack that offers significantly higher output, with a 20% reduction in volume density

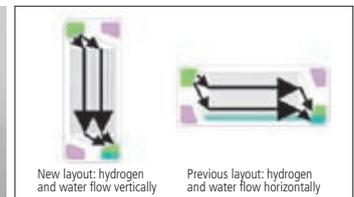
and a 30% reduction in mass density, as well as significantly enhanced cold start capability ( $-30^{\circ}\text{C}/-22^{\circ}\text{F}$  cold start,  $-10^{\circ}\text{C}/14^{\circ}\text{F}$  lower than the previous model). Working steadily to achieve full-scale commercialization of fuel cell vehicles, Honda will continue to improve its advanced technology.



FCX Concept in motion



Fuel Cell Stack used in FCX Concept



Comparison of Previous and New Stack Layouts

## Noise Reduction

Honda is working to reduce noise during acceleration. The main source of acceleration noise is the engine, especially in the air intake and exhaust systems. The technologies presented here were implemented in the Crossroad, released

in February 2007, to suppress intake and exhaust noise, reducing exterior noise to 73dB (A), lower than the 76dB (A) required by regulations.\*

\* 1.8-liter five-speed automatic transmission VTEC vehicle

### Case Study

#### Engine Noise Reduction Technology

- High-rigidity cylinder block
- High-rigidity crankshaft
- High-rigidity chain case
- Engine chamber acoustic material
- Intake noise/radiation noise reduction technology
- Large, high-rigidity air cleaner
- Large, high-rigidity resonator chamber
- Exhaust noise reduction
- Large, noise-absorbing chamber
- Large muffler



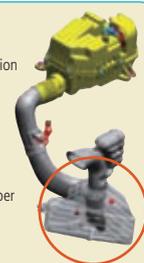
- Cylinder Block Exterior  
Curved surfaces and rib layout for high rigidity and radiation noise suppression



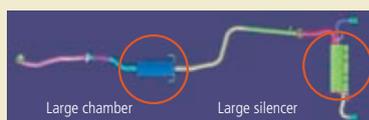
- Chain Case Structure
- Curved surfaces for high rigidity
- Reduction of radiation noise



- Intake System  
High-volume resonator chamber for noise reduction



Resonator chamber



Large chamber

Large silencer

- Crankshaft
- Pin diameter/width, journal diameter/width optimized
- Optimal balance weight for stable crank operation and reduced impact

Balance weight



- All-aluminum lower block structure and stiffener-integrated aluminum oil pan
- Improved crank support and power plant rigidity



## Reduction of In-vehicle Volatile Organic Compounds (VOCs)

Honda has long sought to reduce in-vehicle VOC emissions. For all new vehicles released in FY2007, we reviewed the processing methods, adhesives and materials used in making interior parts to reduce VOC emissions, including formaldehyde and toluene. The result was a reduction in

in-vehicle VOC emissions to a level below that mandated by Japan's Ministry of Health, Labor and Welfare in its guidelines for in-vehicle VOC content. We will continue striving to purify the air inside our vehicles.\*

\* Some sports and coupe models excluded

# Motorcycles

Going forward from FY2007, we are striving to attain our targets for CO<sub>2</sub> reduction by FY2011, implementing improved fuel efficiency technologies worldwide, and extending the implementation of electronic fuel injection. We are also continuing to strive for even cleaner exhaust emissions.



Annual Targets and Results

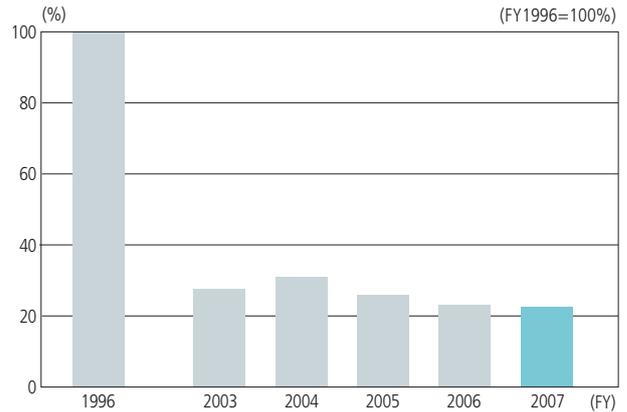
- FY2007 Targets**
- Expand implementation of fuel injection technology
  - Further improvements in fuel efficiency

- FY2007 Results**
- Fuel injection implemented on eight models released worldwide in FY2007
  - Fuel efficiency of fuel injection-equipped models improved

## Exhaust Emissions

In FY2007, by introducing more models that comply with Euro III regulations, we achieved lower total exhaust emissions than in the previous year. We reduced total HC emissions to 25% of FY1996 levels, once again attaining or surpassing our target of reducing total HC emissions to approximately 33% of FY1996 levels, maintaining reduced levels achieved in FY2001.

• Trends in Total HC Emissions\*



\* Total HC emissions for Japan, North America, Europe and Thailand

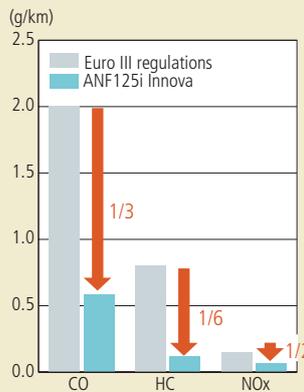
### Case Study

#### Improvements in Emissions Performance for Major Models

##### • ANF125i Innova

Introduced in Europe as a 2006 model-year release, the PGM-FI-equipped ANF125i Innova attains emissions levels less than 50% of mandated levels.

##### • ANF125i Innova: Cleaner Exhaust Emissions

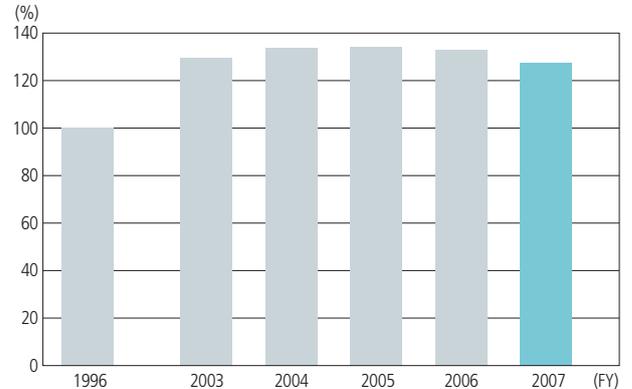


ANF125i Innova

## Improvements in Fuel Efficiency

In FY2007, by expanding the lineup of Euro III-compliant fuel-injection-equipped vehicles, we succeeded in increasing average fuel efficiency of Honda automobiles in Europe. However, due to expanding implementation of automatic-transmission-equipped models in Thailand, average fuel efficiency for the four areas (Japan, the US, Europe and Thailand) decreased to 127.6%, a 5.5% decline from last year.

•Average Fuel Efficiency Trends\* (FY1996=100%)



\* Average fuel efficiency in Japan, the US, Europe, Thailand

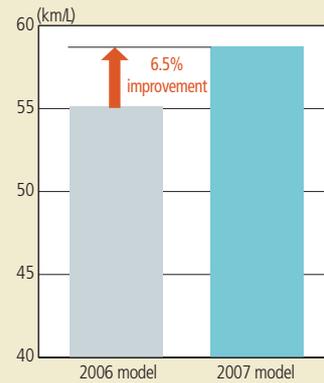
### Case Study

#### Improvements in Fuel Efficiency for Major Models

##### •ANF125i Innova

Introduced in Europe as a 2006 model-year release, the PGM-FI-equipped ANF125i Innova attains 6.5% better fuel efficiency than the previous model.

##### •ANF125i Innova: Fuel Efficiency Improvement

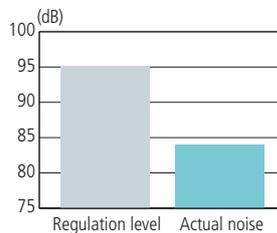


ANF125i Innova

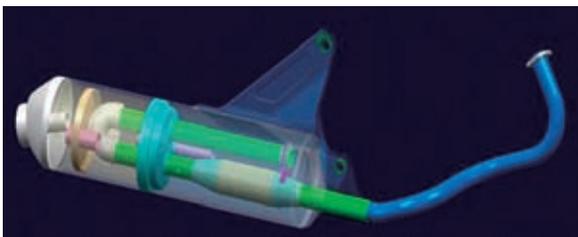
## Noise Reduction

Introduced in February 2007 in Thailand, the CLICK Play features the noise reduction technologies presented here, as well as quiet performance significantly better than the noise levels mandated by regulations. In view of the volume of motorcycle traffic in Thailand, Honda is implementing environmentally responsible noise reduction technologies. Measures include a three-part muffler to reduce exhaust noise and a two-part air cleaner to reduce intake noise.

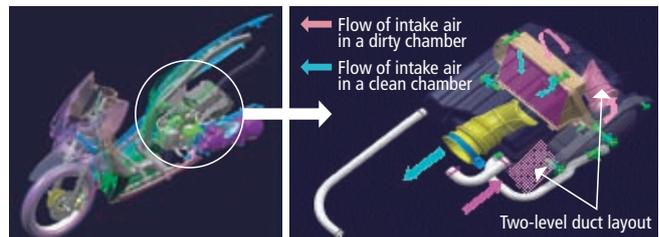
##### •CLICK Play: Quiet Performance



CLICK Play



Three-part muffler to reduce exhaust noise



Two-part air cleaner to reduce intake noise

# Power Products

Anticipating the introduction of new regulations around the world, we are working constantly to further improve fuel efficiency and clean the exhaust emissions of Honda power products

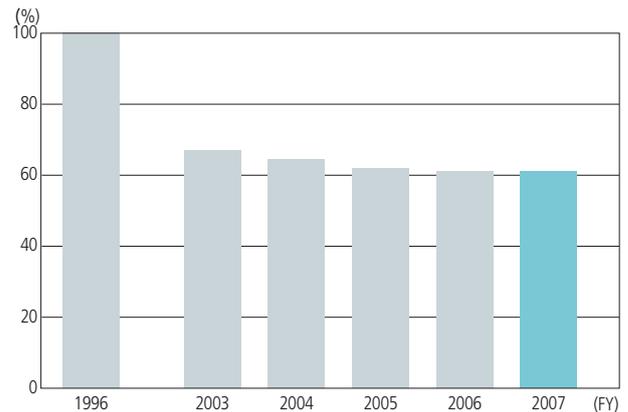


Annual Targets and Results	<b>FY2007 Targets</b> <ul style="list-style-type: none"> <li>Comply with pending regulations</li> <li>Further improvements in fuel efficiency</li> </ul>	<b>FY2007 Results</b> <ul style="list-style-type: none"> <li>Compliance for all models released in Japan in FY2007</li> <li>20% fuel efficiency improvement in EU55is generators*</li> <li>Introduction of new MCHP1.0 cogeneration model (22.5% increase in generation efficiency)</li> </ul>
		<p>* At 1/4 load with Eco Throttle</p>

## Exhaust Emissions

We were able to achieve an approximate 30% reduction in average HC and NOx emissions levels in FY2002. In FY2007, we further improved our performance, realizing an approximate 39% reduction in HC and NOx emissions.

•Reduction of Average HC, NOx Emissions\* (FY1996=100%)



\* Average emissions worldwide

### Case Studies

#### Emissions Performance Improvements in Major Models

##### •The Punch X Compact Tiller

The Punch X compact tiller is an easy-to-use device that helps people get things done quicker. It features a lever that allows the operator to easily select two forward gears and a reverse gear, as well as a clutch lever that engages the gears when the lever is squeezed and disengages automatically when the lever is released. Further, thanks to the L-shape design tiller teeth, the Punch X churns through hard or clayey ground with ease. The light, compact 4-stroke



The Punch X Compact Tiller

OHV engine is positioned to give the tiller a low center of gravity for stable, easy-to-manuever operation. The Punch X even complies with the tough standards of the U.S. Environmental Protection Agency (EPA) Phase II regulations and California Air Resources Board (CARB) Tier II regulations.

##### •BF90/BF75 Marine Outboards

The new BF90 and BF75 marine outboards achieve clean exhaust performance that exceeds CARB emissions regulations for 2008—the most stringent emissions standards in the world—as well as complying with EPA regulations for 2006 and Japan-market voluntary standards.

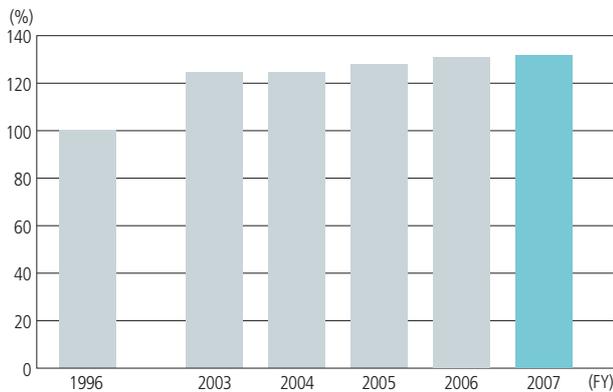


BF90/BF75

## Improvements in Fuel Efficiency

As of the end of FY2007, average fuel efficiency for all power products was approximately 31.7% higher than in FY1996\*

### •Improvements in Fuel Efficiency (FY1996=100%)



\* Average fuel efficiency worldwide

### EU55is Ultra-Quiet Generator Equipped with a Sine-Wave Inverter

The EU55is generator employs Honda's original sine-wave inverter technology to deliver high-quality electrical output in a compact, low-noise design. Its ability to simultaneously output 100V and 200V single-phase current makes it ideal for both commercial and emergency use. Not only can this versatile unit be

used for powering computer equipment, as an emergency power source and for recreational activities, it is also capable of powering large power tools, 200V household appliances and other heavy-duty power equipment. Honda's dual-voltage mechanism is capable of simultaneous 100V and 200V single-phase current output. Its high-efficiency inverter combines with the Eco-Throttle system to allow engine speed to be adjusted automatically for an optimum match with the power requirements of the device in use, resulting in at least 20% higher fuel efficiency\* than the EX5000.

\* At 1/4 load with Eco Throttle

### BF90/BF75

Based on the 1.5-liter VTEC engine that powers the Fit automobile, these marine outboards feature Honda's PGM-FI (Programmed Fuel Injection). Lean-burn operation is achieved through the application of PGM-FI and an oxygen feedback sensor. The implementation of intake/exhaust roller-type rocker arms and an offset cylinder layout help reduce internal friction. The new outboards also boast the world's first ignition timing governed by Boosted Low Speed Torque air/fuel ratio technology, and other advanced electronic control devices. Together with a lightweight, compact design, these technologies combine to offer outstanding performance and fuel efficiency. Maximum speed and acceleration are improved, while fuel consumption is reduced by more than 20% compared to the previous BF90 model.

## Alternative Fuels

### MCHP1.0 Compact Household Cogeneration System

A new model of the Micro-sized Combined Heat and Power (MCHP) compact cogeneration unit, introduced in October 2006 was designed by Honda to reduce the electricity costs of ordinary households by reducing the use of electricity distributed through utility companies. The new model featured a 22.5% increase in electrical generation capacity for 85% energy efficiency. Incorporating Honda's compact household cogeneration unit, the ECOWILL cogeneration system achieved annual sales of 18,415 units in FY2007. Since its release in March 2003, a total of 46,000 units have been sold.



MCHP1.0

### Honda and Climate Energy Begin Sales of freewatt™ Micro-CHP Cogeneration System

American Honda Motor Co., Inc. and Climate Energy, LLC began sales of freewatt™, their collaborative MCHP household cogeneration system in the U.S. in March 2007. The small, light, household cogeneration unit is a combination of the world's smallest natural gas engine (GE160V) and a sine-wave inverter, both developed by Honda. The freewatt™ system comprises a MCHP cogeneration unit developed by Honda, and is paired with a furnace or boiler produced by Climate Energy. The ultra-quiet freewatt™ unit produces 3.26 kilowatts of heat and 1.2 kilowatts of electric power. Further, it allows homeowners to reduce their lighting and heating energy costs, and resulting CO2 emissions—by as much as 30%.\*

\* Based on Climate Energy calculations, compared with conventional heating systems (80% energy efficiency)

## Noise Reduction

### EU55is Ultra-Quiet Generator Equipped with a Sine-Wave Inverter

Noise reduction measures implemented on the new generator include double-layer soundproof construction for the engine compartment and a tri-compartment configuration with separate intake, engine and exhaust compartments for improved cooling and noise reduction, along with a centralized intake and exhaust system for smoother overall air flow, which combine to place the EU55is at the top of its class for low-noise operation. In comparisons of sound power levels under half-load conditions, the EU55is is approximately 3dB(A) quieter than the EX5000 (a comparable liquid-cooled-engine, low-noise generator in the same power output class). It is about 7.5dB(A) lower

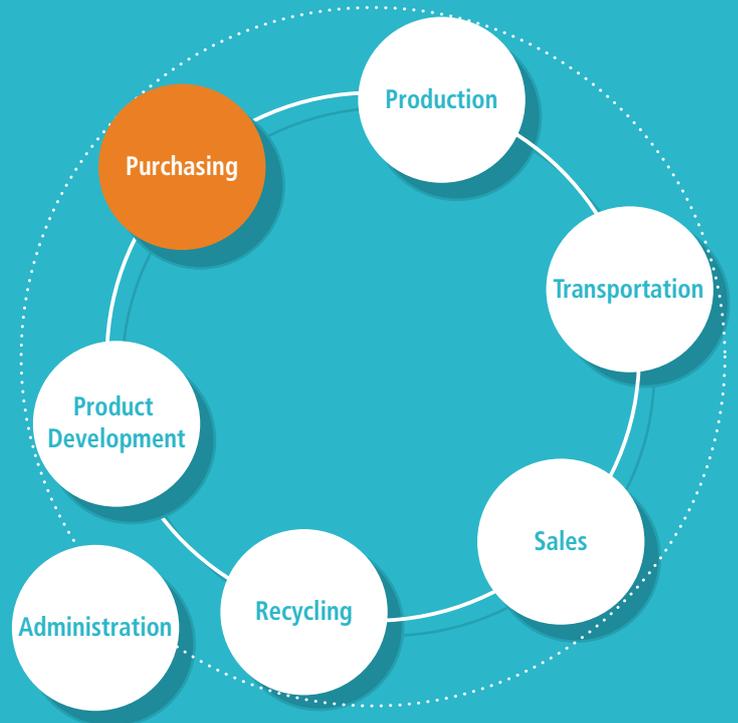
than the EM55is (an open-style, inverter-equipped generator in the same power output class) under half-load conditions, and approximately 9dB(A) quieter under rated output loads. The EU55is is officially designated as ultra-low-noise construction equipment under Japan's Ministry of Land, Infrastructure, and Transport noise regulations.



EU55is Generator

Note: Based on ISO 3744 sound power levels for noise sources

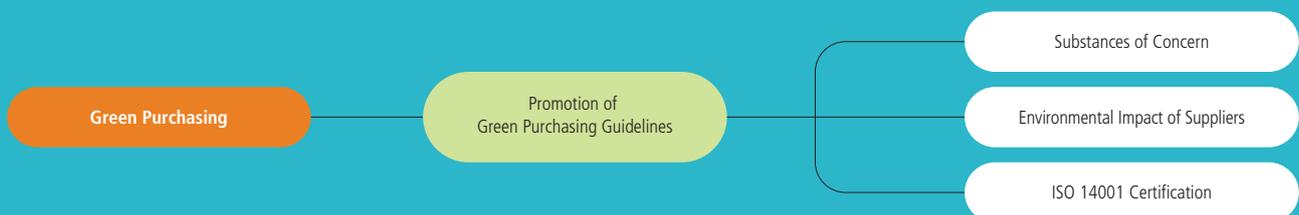
# Purchasing



## Striving for Environmentally Responsible Purchasing of Materials and Parts

An automobile is made of some 20,000 to 30,000 parts, many of which are purchased by automakers from suppliers. This means that the cooperation of suppliers is essential to the effort to minimize environmental impacts throughout the product life cycle. As part of our initiative to ensure that the purchasing of materials and parts is conducted in accordance with Honda's principles of environmental conservation, we formulated the Honda Green Purchasing Guidelines. We are also encouraging suppliers to acquire ISO 14001 certification. Strengthening ties with trusted partners, we're working proactively to achieve environmentally responsible purchasing.

### Principal Purchasing Initiatives



# Green Purchasing

Honda has formulated Green Purchasing Guidelines, and is working with its suppliers to maximize procurement of materials and parts that have minimal environmental impact.

Annual Targets and Results	<b>FY2007 Targets</b> <ul style="list-style-type: none"> <li>Promote supplier compliance with substance of concern guidelines</li> <li>Ensure suppliers reduce CO<sub>2</sub> emissions</li> <li>Ensure suppliers reduce landfill waste</li> <li>Promote ISO 14001 certification for all suppliers</li> </ul>	<b>FY2007 Results</b> <ul style="list-style-type: none"> <li>Elimination of hexavalent chromium: nearly complete</li> <li>Elimination of lead and lead alloys: near complete elimination of manufacturing with substances containing more than 0.35wt% lead</li> <li>12% per-unit CO<sub>2</sub> emissions reduction (baseline: FY2001)</li> <li>Reduced landfill waste 97% (baseline: FY2001)*</li> <li>403 companies (98%) ISO14001 certified</li> </ul>
	* Covers consolidated Group companies (those considered subsidiaries or consolidated affiliates under law)	

## Promotion of Green Purchasing Guidelines

Moving proactively to implement environmentally responsible purchasing of parts and materials, we formulated Green Purchasing Guidelines in FY2002. (Please refer to outline of guidelines below.) Sharing targets and action items with our suppliers, we are working to attain our targets by FY2011.

### Handling of Substances of Concern

Honda has nearly completed its transition from the use of four metals considered to have a particularly harmful impact on the environment—lead, mercury, hexavalent chromium, cadmium—in its production of motorcycles, automobiles and power products in Japan.

In FY2007, Honda nearly completed the transition to metal products containing less than 0.35wt% of lead or lead alloys as mandated by our guidelines.

### Environmental Impact of Parts Production by Suppliers

In FY2007, Honda applied its LCA System in an initiative to seek reductions in CO<sub>2</sub> emissions and landfill waste generated by suppliers. As a result, CO<sub>2</sub> emissions by suppliers were reduced 12% from FY2001 levels, and landfill waste was reduced 97% from FY2001 levels. In both cases, these achievements were the result of a cooperative effort between Honda and its suppliers.

In FY2008, we will continue to seek further reduction in the use of substances of concern as defined in the Guidelines and reduction in the environmental impact of our suppliers' activities.

### Promoting ISO 14001 Certification for Suppliers

In FY2007, we worked proactively to encourage suppliers to acquire ISO 14001 certification. As a result, 98% of our suppliers, a total of 403 companies, have now acquired this certification.

### •Honda Green Purchasing Guidelines: Outline

Honda Green Purchasing	Category	Action	Target
Products	Handling of substances of concern, proportion included in parts	Volume contained in product (part/material)	Action in accordance with Honda Substances of Concern Guidelines*
		Volume of CO <sub>2</sub> emissions	2010: 6% decrease (baseline: FY2001)
Production	Monitoring environmental impact of supplier activities	Landfill waste volume	2007: zero landfill waste
		Status of environmental management systems at suppliers	2005: certification for all suppliers in Japan
Policy	ISO 14001 certification status		

\* Guidelines governing the handling of substances of concerns as defined in the EU regulations (lead, mercury, hexavalent chromium, cadmium) and other substances of concerns defined independently by Honda; in particular the reduction in the use and elimination of these substances

### Case Study

#### Service Replacement Parts Purchasing Initiative

Since most molds are made of metal, they are recycled when no longer needed. Making molds from recycled molds reduces CO<sub>2</sub> emissions 25% over making molds from raw materials. Ideally, suppliers would simply recycle their molds as soon as possible. However, many molds are used to make service replacement parts, making it difficult to determine when molds should be recycled. As a result, old molds can end up being stored for a long period of

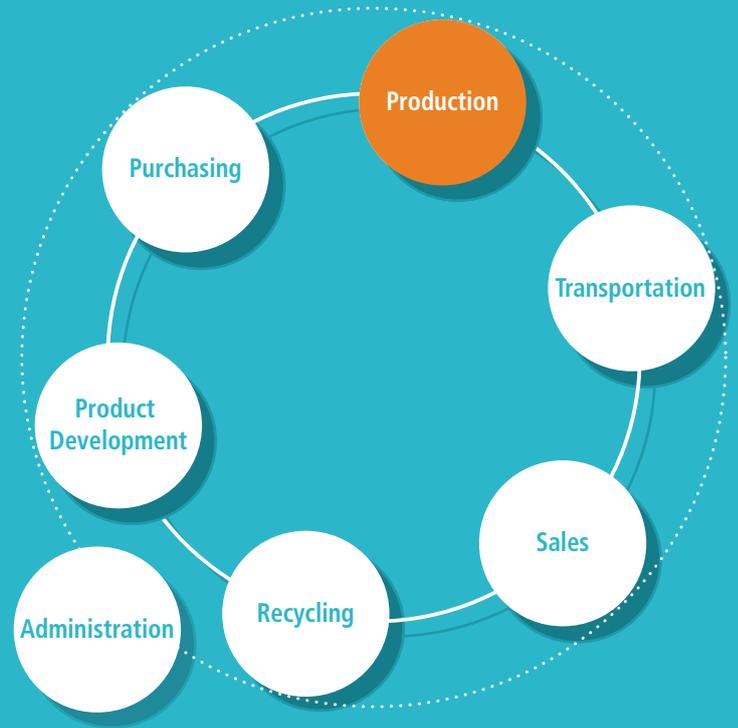
time. In FY2003, Honda began an initiative to share with suppliers guidelines for decision-making on the recycling of molds, leading to standardization of recycling procedures and more proactive recycling. In FY2007, we continued cooperating with suppliers to ensure the timely recycling of old molds.

<b>•Results for FY2007</b>	11,899 molds recycled 1,660 tons of molds recycled
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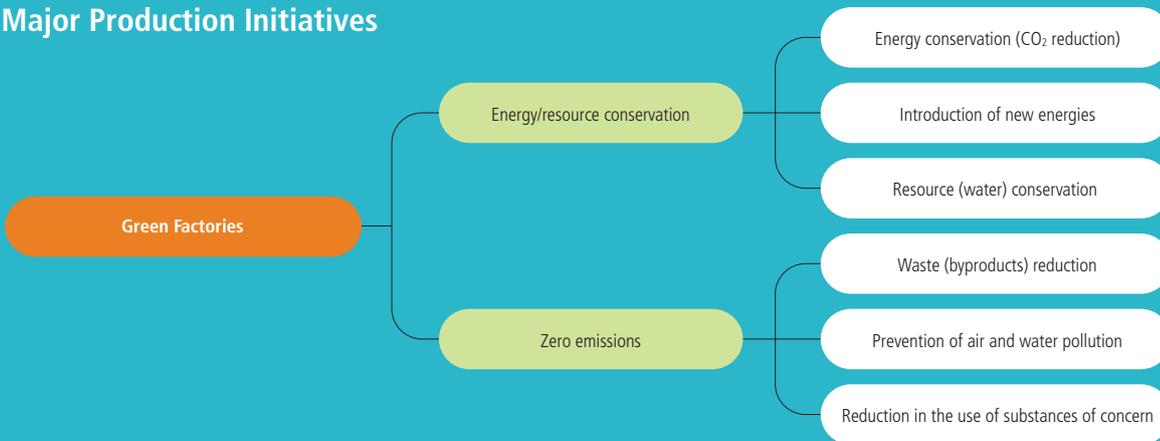
# Production

## Making Honda Factories Even More Environmentally Responsible

Honda is working to minimize the impact of its manufacturing operations on the global environment. We're also seeking to improve the working environment for our associates and enhance cooperation with local communities. Through these efforts, we strive to give local communities reason to be proud to host our factories. These are the goals of our worldwide Green Factory initiative.

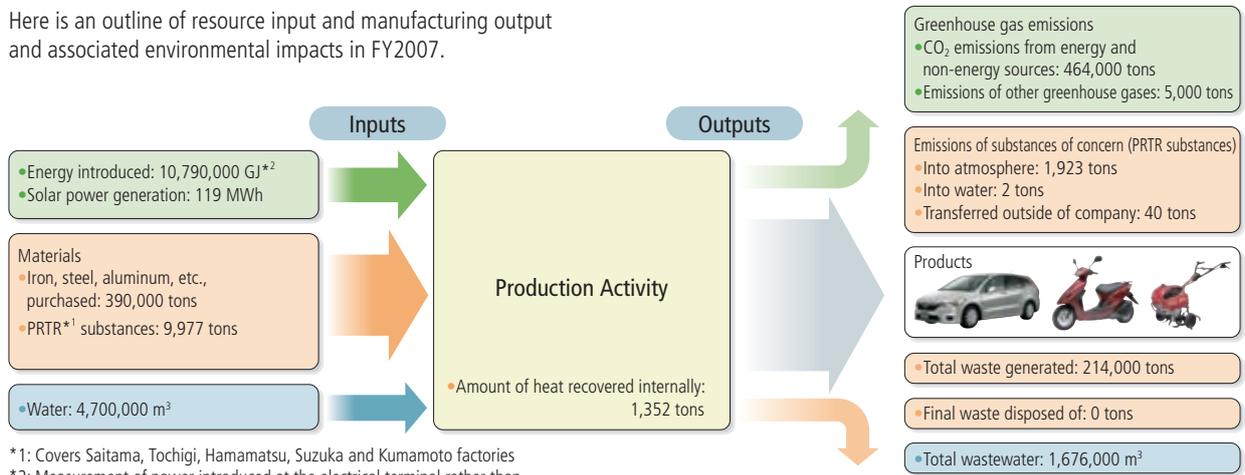


### Major Production Initiatives



### Flow of Materials in Production\*1 in FY2007

Here is an outline of resource input and manufacturing output and associated environmental impacts in FY2007.

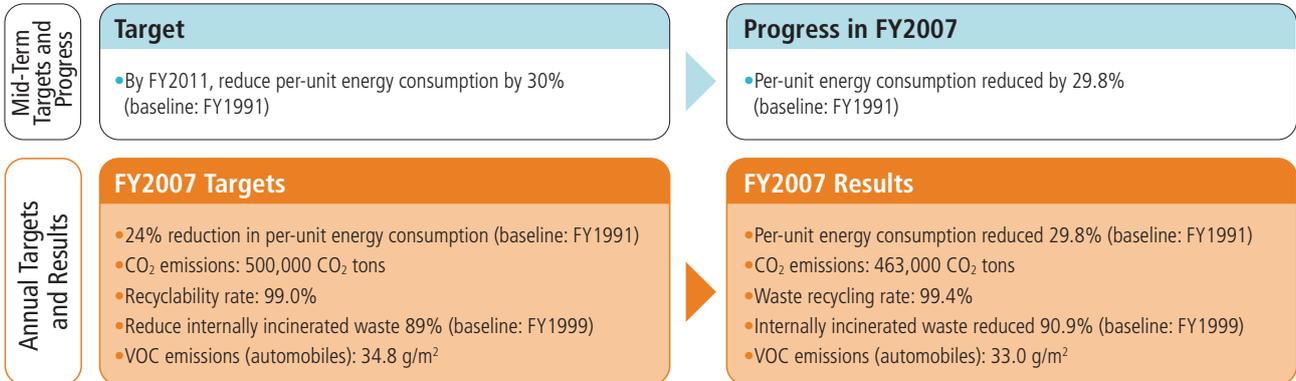


\*1: Covers Saitama, Tochigi, Hamamatsu, Suzuka and Kumamoto factories  
 \*2: Measurement of power introduced at the electrical terminal rather than heat emitted in generating electricity converted from 9.76 MJ to kWh.

## Production

# Green Factories

Honda has aggressively reduced the use of energy and other resources and made progress toward zero emissions in production, in accordance with its Green Factory initiative.



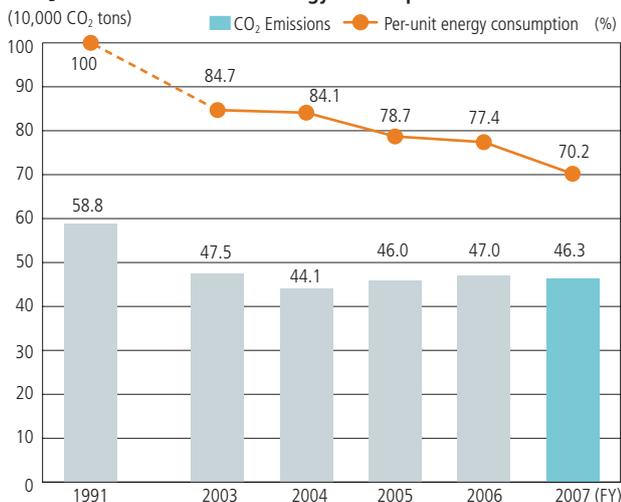
\* Covers five factories in Japan: Saitama, Tochigi, Hamamatsu, Suzuka and Kumamoto factories

## Energy conservation

### Mid-term Targets and Progress

In FY2007, energy consumption per unit was reduced 29.8%, exceeding the target of a 24% reduction from FY1991 levels.

### CO<sub>2</sub> Emissions and Per-unit Energy Consumption



Note: Per-unit energy consumption values are shown as indices (FY1991=100%).

### CO<sub>2</sub> Emissions calculated according to the following formulae:

Electricity	0.378 CO <sub>2</sub> tons/MWh
Natural gas (13A 46MJ)	2.330 CO <sub>2</sub> tons/1,000 Nm <sup>3</sup>
Natural gas (13A 45MJ)	2.277 CO <sub>2</sub> tons/1,000 Nm <sup>3</sup>
Kerosene	2.489 CO <sub>2</sub> tons/kl
Diesel oil	2.619 CO <sub>2</sub> tons/kl
Gasoline	2.322 CO <sub>2</sub> tons/kl
LPG	3.000 CO <sub>2</sub> tons/ton

#### Notes:

Electricity: Formula designated in Japan's Ministry of the Environment guidelines for calculating greenhouse gas emissions (V. 1.6)

Fuels: Factor used in the reporting system established under the Law Concerning the Promotion of Measures to Cope with Global Warming

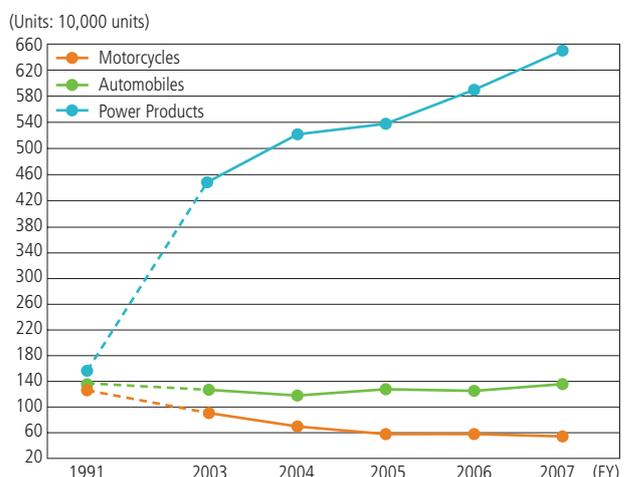
### Energy savings

CO<sub>2</sub> emissions attributable to use of energy in the production domain totaled 463,000 tons, 7.4% lower than the target of 500,000 tons (21.3% lower than FY1991 emissions) and 1.5% lower than last year's total of 470,000 tons. Measures implemented in FY2007 (see below) and weather that allowed for reductions in heating and air conditioning were the main factors contributing to the decline. To further reduce energy consumption, Honda will continue to promote energy conservation, introduce new energy sources, and efficiently monitor energy use applying our LCA process.

### Energy conservation initiatives

- Implementation of cogeneration system (Kumamoto Factory)
- Introduction of use natural gas (with implementation at Tochigi Factory, all factories in Japan have completed this transition)
- Introduction of high-efficiency compressors
- Introduction of hydraulic inverter control units

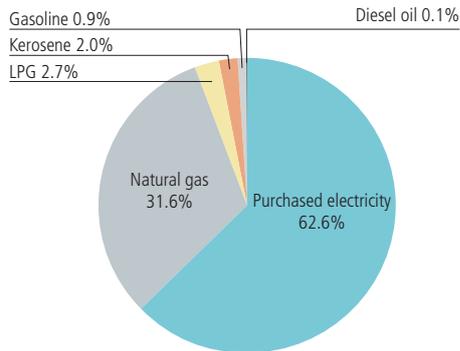
### Change in Unit Output in Japan



Note: From FY2000 onward, ATVs, which had previously been classified as power products, were reclassified as motorcycles.

## Production

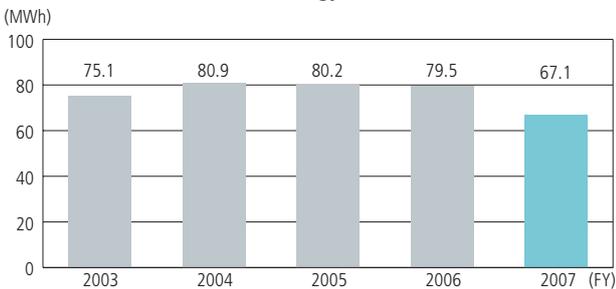
### •Energy Consumption Breakdown (CO<sub>2</sub> equivalents)



### Introduction of new energy sources

Consumption of new energy sources in the production domain totaled 67.1 million kWh in FY2007, accounting for approximately 8% of total electricity consumption. Solar power generation equipment was installed at the Tochigi and Suzuka factories and a cogeneration system was installed at the Kumamoto Factory. Further, the operation of cogeneration systems was made more efficient as a result of an adjustment taking into account the balance between electricity generation and heat consumption. We will continue to work toward further improvements in efficiency and further reduction of CO<sub>2</sub> emissions.

### •Power Generation from New Energy Sources



Note: Solar power generation and natural-gas cogeneration are considered new energy sources according to definitions contained in Japan's Law Concerning Special Measures to Promote the Use of New Energy)

### Greenhouse gas emissions

In FY2007 greenhouse gases emitted in the production domain totaled 469,000 CO<sub>2</sub> tons. Through more efficient use of gas recovery equipment during the introduction of gas (HFC) into automobile air-conditioning systems, and other measures, HFC emissions were reduced.

#### •Greenhouse gas emissions

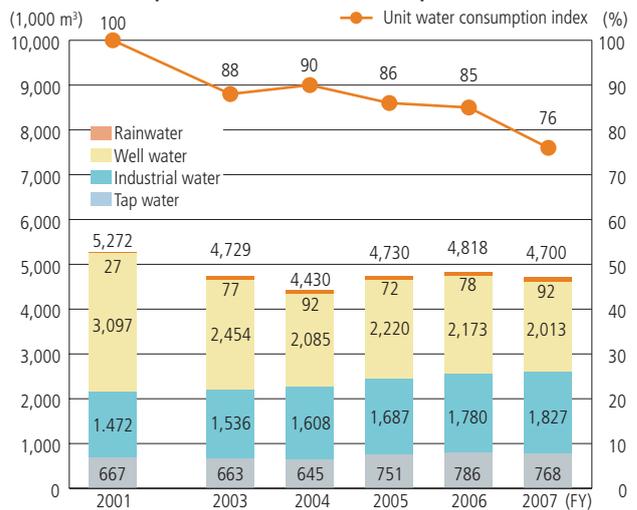
- CO<sub>2</sub> emissions from energy consumption and waste incineration: 464,000 CO<sub>2</sub> tons
- Emissions of greenhouse gases other than CO<sub>2</sub>: 5,000 CO<sub>2</sub> tons

Note: Greenhouse gas emissions (CO<sub>2</sub>, CH<sub>4</sub>, N<sub>2</sub>O, HFC, PFC, and SF<sub>6</sub>) calculated according to the guidelines provided by Japan's Ministry of the Environment.

### Resource (water use) conservation

Water used in the production domain decreased 10.8% from FY2001 levels to 4,700,000 m<sup>3</sup>. The unit water consumption index decreased 24% from FY2000 levels. The decline can be attributed to an increase of 92,000 m<sup>3</sup> in rainwater use, and a reduction of discharges into the sewer system.

#### •Water Consumption and Unit Water Consumption Index



Note: Unit water consumption values are shown as indices (FY2001=100%). Note: an error in calculating water use in FY2006 has been corrected.

#### •Water Conservation Measures Implemented in Fiscal 2007

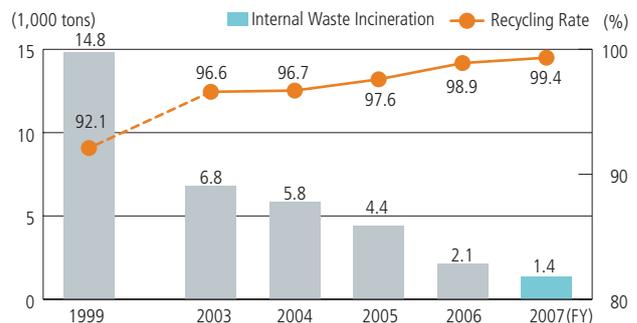
- Recycling of water recovered from wastewater treatment
- Reduction of water supply required due to improvement of efficiency of cogeneration system operation
- Recycling of cooling water used in forging

## Waste Elimination

### Reduction in waste (byproducts)

All factories in Japan maintained their record of zero direct off-site landfill waste in FY2007. In addition, recycling volumes were increased and the volume of waste and byproducts incinerated was reduced. The amount of waste incinerated was approximately 1,400 tons in FY2007, a 91% reduction from FY1999 levels. Internal processing of mill ends was moved to external recycling, leading to an increase in the volume of recycled materials and recycling rate. We will further reduce waste incineration by improving waste segregation and recycling and proactively reducing the total volume of waste and byproducts by preventing their generation at source.

#### •Trends in Internal Waste Incineration and Recycling Rate



### Breakdown of Waste (Byproducts) Associated with Production

(1,000 tons)

Type	FY2005	FY2006	FY2007
Off-site landfill	0.00	0.00	0.00
External disposal by contractors	0.10	0.02	0.12
Internal incineration	4.38	2.11	1.35
Internal concentration	6.03	6.91	6.27
Recycling	176.91	189.40	206.35
Total waste volume	187.42	198.44	214.09

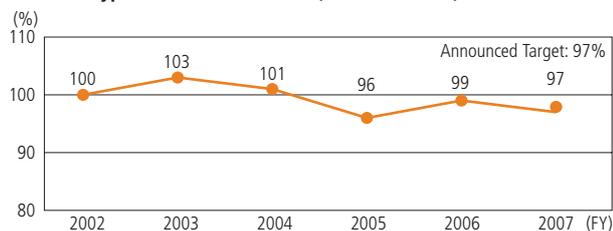
Note: Excluding incinerated residues

$$\left( \text{Recycling ratio} = \frac{\text{Total byproducts} - \text{Internal liquid waste concentration volume} - \text{Internal incineration volume}}{\text{Total byproducts} - \text{Internal liquid waste concentration volume}} \times 100 \right)$$

Note: method used to calculate the breakdown of waste for FY2005 and FY2006 has been revised and recycling rates corrected.

In accordance with Japan's Law for the Promotion of Effective Utilization of Resources, Honda is engaged in an initiative to reduce the volume of byproducts it generates (metals and casting aggregates) (shown in the adjacent graph). The byproduct generation target of 3% from the FY2002 baseline was achieved (a reduction of 2% from FY2006) through improvements to the production processes. We will continue striving to improve production processes, and take other measures to reduce the generation of byproducts.

### Per-Unit Byproduct Generation of (FY2002=100%)



Note: based on a review of the analysis of recycling processes, historical data has been revised.

### Prevention of air and water pollution

Gas emissions from combustion systems and factory wastewater are closely monitored to maintain air and water quality at levels mandated by voluntary standards, which are more stringent than the government regulations. (For specific measurement results, please refer to Japan Factory Data.)

### Elimination of Substances of Concern

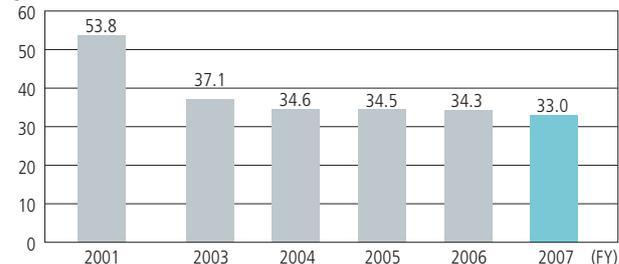
#### VOC\* Emissions

The main source of VOC emissions is solvents used in automobile paint processes. In FY2007 average VOC emissions from these factories were 33.0 g/m<sup>2</sup>, a 1.3 g/m<sup>2</sup> reduction from FY2006, and 1.8 g/m<sup>2</sup> lower than the target. Principal measures implemented to achieve this reduction are detailed below. We will continue working toward FY2011 targets by extending the use of water-based paints, introducing high-efficiency painting lines and implementing other measures to reduce VOC emissions.

#### Measures implemented in FY2007 to reduce VOC emissions

- Comprehensive reductions in waste and loss (better recovery of thinners used in cleaning, and other areas)
- Improved painting efficiency through the introduction of robots and stationary electronic painting devices, and other measures
- Continuing introduction of water-based paints

### Trend in Per-Unit VOC Emissions

(g/m<sup>2</sup>)

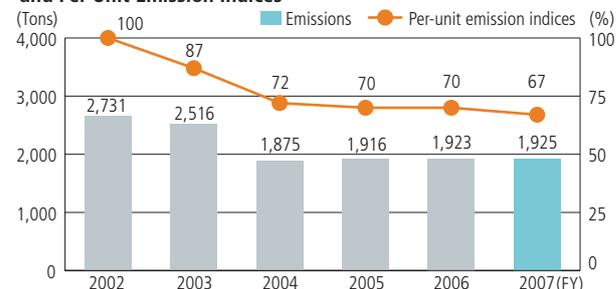
\* VOCs mainly consist of organic solvents contained in paints and adhesives. VOCs remain toxic for a long period of time, causing depletion of the ozone layer in the stratosphere and photochemical smog in the troposphere. For these reasons, their use is regulated in many countries.

### PRTR\* Emissions

The adjacent charts provide statistical data for FY2007 for chemical substances within the scope of the PRTR system. The volume of emissions discharged into the atmosphere/hydrosphere was approximately 1,925 tons, 30% lower than FY2002. The PRTR per-unit emission index declined 33% from FY2002. We will continue to strive for reduction in the use of these substances in conjunction with measures to reduce VOC emissions. (For further details on emissions, please refer to Supplementary Data.)

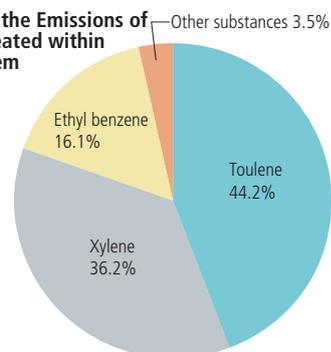
\* The PRTR (Pollutant Release and Transfer Register) system is based on Japan's Law Concerning the Reporting of Specified Chemical Substances Released into the Environment and the Promotion of Improvements in their Management.

### Emissions of Substances Treated under the PRTR System and Per-Unit Emission Indices



Note: PRTR per-unit emission values are as indices (FY2002=100%).

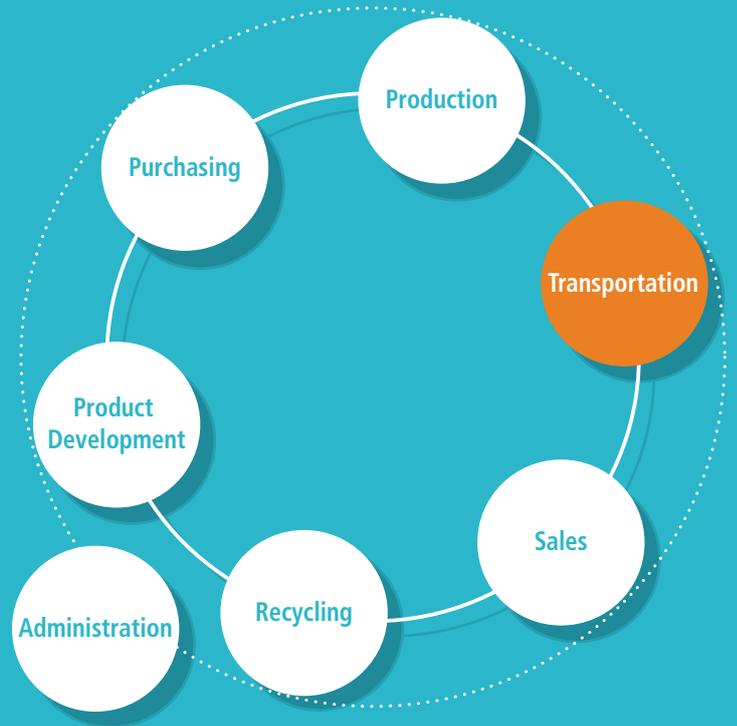
### Breakdown of the Emissions of Substances Treated within the PRTR System



### Report Concerning the Storage and Disposal of Devices Containing PCBs

In FY2007 we submitted a report to the government on 739 condensers and transformers containing PCBs. We have concluded an agreement with the Japan Environmental Safety Corporation for pre-processing. We are storing these devices in compliance with government storage standards, ensuring that PCBs do not leak into the environment. We are preparing measures for the proper and prompt disposal of these devices.

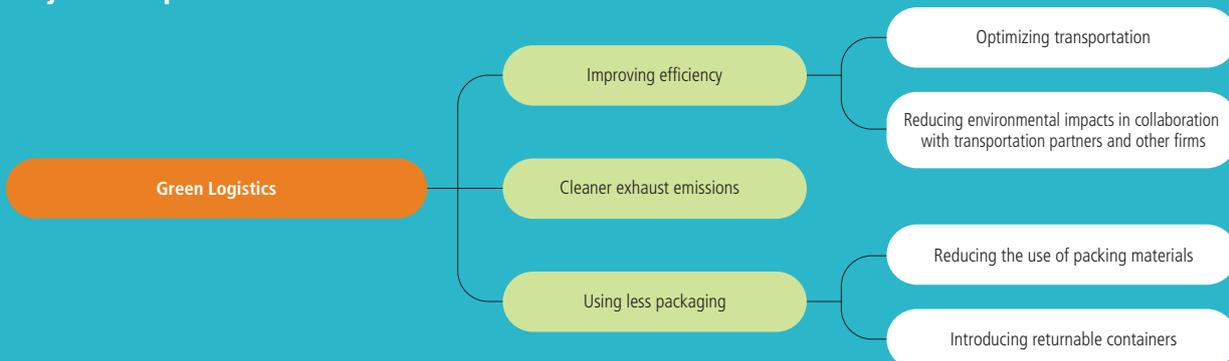
# Transportation



## Striving for Efficient, Environmentally Responsible Transportation

Honda is continually striving to improve transportation efficiency. We are changing the means of transportation, wherever possible, from truck to ship and rail. We are also developing environmental management systems jointly with our transportation partners and implementing various other more environmentally responsible logistics measures. In addition, we are reducing the use of packaging materials by introducing simpler packaging, using new packaging materials, altering specifications and promoting the use of returnable containers.

### Major Transportation Initiatives



## Transportation

# Green Logistics

Honda has improved transportation efficiency through energy-conserving operations and a modal shift from trucking to more energy-efficient rail and marine shipping. To reduce packaging waste, we are proactively introducing packaging methods that require less material. We are also promoting the increased use of returnable materials.

Annual Targets and Results

### FY2007 Targets

- Continue joint implementation of environmental management system with four main partners
- Improve transportation efficiency  
CO<sub>2</sub> emissions: 110,650 CO<sub>2</sub> tons (transportation of completed automobiles)

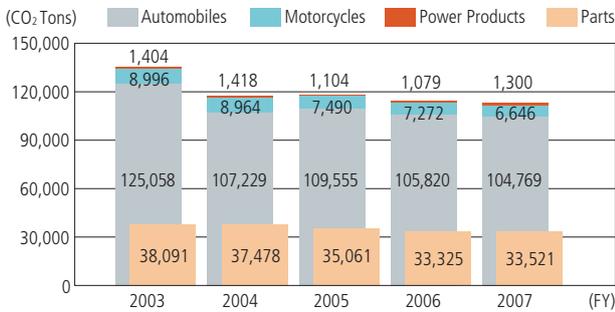
### FY2007 Results

- Continued implementation by four main partners
- Improved transportation efficiency  
CO<sub>2</sub> emissions: 104,769 CO<sub>2</sub> tons (transportation of completed automobiles)

## Improved transportation efficiency

In FY2007 CO<sub>2</sub> emissions associated with the transportation of automobiles, motorcycles, power products and parts in Japan totaled 146,236 CO<sub>2</sub> tons.

### Trend in CO<sub>2</sub> Emissions Associated with Transportation

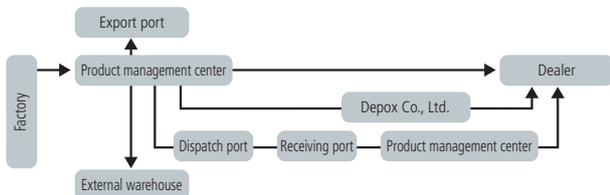


Note: Calculations based on a Honda formula. (We plan to switch to calculations based on the amendment to Japan's Rationalization in Energy Use Law.)

### Automobile Transportation Initiatives

By encouraging Honda's transportation partners in Japan to promote energy conservation, and by improving average fuel efficiency through the introduction of digital tachometers, we improved fuel efficiency in the transportation of finished automobiles by 1.5% and reduced transportation-related CO<sub>2</sub> emissions by 1,309 CO<sub>2</sub> tons in FY2007 (baseline: FY2006). In future, we will expand transportation by ship and rail to further reduce CO<sub>2</sub> emissions associated with the transportation of automobiles.

### Transportation Operations Covered by CO<sub>2</sub> Emissions Calculations (transportation of completed automobiles)



### Transportation efficiency improvements overcoming increases in transportation volume, resulting in CO<sub>2</sub> emissions reduction (FY2007)

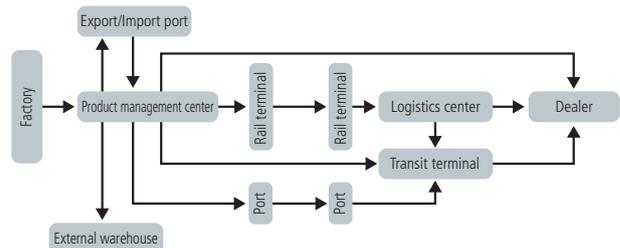
Measure	Start	CO <sub>2</sub> reduction (CO <sub>2</sub> tons)
Energy-conserving operations, introduction of digital tachometers	FY2005	1,309
Suzuka-Tsuruga-Niigata (Modal shift from trucking to marine shipping)	FY2006	402
<b>Total Reduction</b>		<b>1,711</b>

### Motorcycle Transportation Initiatives

For the transportation of finished motorcycles, we also changed, wherever possible, from trucking to shipping. The only element of the modal shift that had not been completed in FY2006—the shift from trucking to shipping between Kumamoto and the Tokyo area—was completed in FY2007 through the use of ferries running from Oita and Yokosuka.

Measure	Start	CO <sub>2</sub> Reduction
Kumamoto-Oita-Yokosuka (Modal shift from trucking to marine transportation)	FY2007 (new)	114

### Transportation Operations Covered by CO<sub>2</sub> Emissions Calculations (transportation of completed motorcycles)



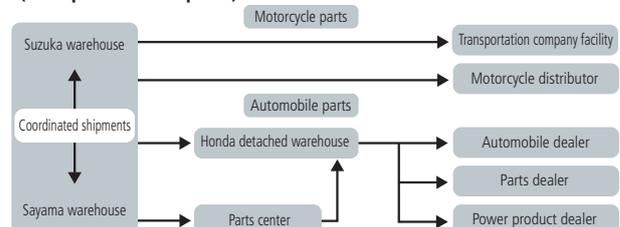
### Parts Transportation Initiatives

The results of initiatives undertaken in FY2007 to reduce CO<sub>2</sub> emissions associated with the transportation of parts are as follows.

Measure	Start	CO <sub>2</sub> Reduction
Reductions as a result of the shift to rail and ship, concentration of production centers	Modal shift began in FY2005, concentration of production centers in April-August 2005	154
Concentration of production centers, implementation of strategies to reduce fixed energy use at facilities	Concentration of production centers April-August 2005	312

We achieved positive results by replacing the trucking of parts to Hokkaido with marine shipments from Niigata to Otaru. We also consolidated shipments from Sayama and Suzuka factories to Niigata to increase efficiency. Future plans call for the concentration of parts production in Suzuka, but we will continue to evaluate the positive impact of this proposed change as we strive for increased efficiency.

### Transportation Operations Covered by CO<sub>2</sub> Emissions Calculations (transportation of parts)



## Cleaner Transportation Exhaust Emissions

To comply with regulations governing diesel emissions enacted by the Tokyo Metropolitan Government and three neighboring prefectural governments, Honda's transportation partners continued introducing diesel particulate filters (DPF)

and low-emissions vehicles. As a result, particulate matter emissions were reduced approximately 9.3 tons in FY2007 over the previous fiscal year.

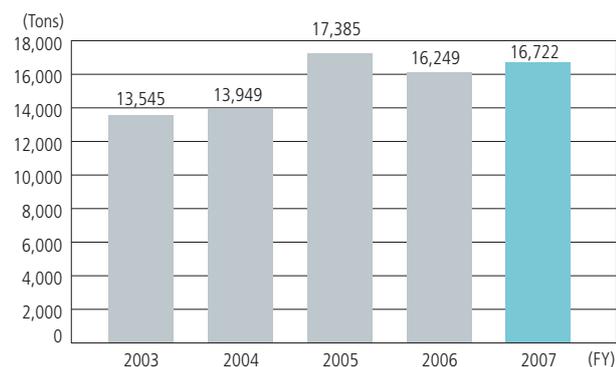
## Using less packaging

### Repair Parts Initiatives

#### •Less packaging in repair parts transportation

During FY2007 in Japan, we reduced the use of packaging materials in the transportation of parts by 1,346 tons over the previous fiscal year. This was made possible, in part, by expanding the use of returnable containers such as metal crates and polypropylene boxes (representing 44.6% of the eliminated packaging). We also expanded the use of returnable containers in warehouses, eliminating 9.4 tons of packaging. We will continue striving to reduce total shipment weights and introduce more reusable containers and simpler packaging to reduce the volume of packaging materials.

#### •Trends in Use of Packaging Materials for Repair Parts



### Using Less Packaging in the Transportation of Component Parts Sets\*

#### •Replacing disposable materials with returnable containers to reduce the use of packaging materials

In FY2007 we accelerated the introduction of returnable containers for both internal and external packaging, planning and beginning the implementation of the program at all facilities to which component parts sets are shipped. Use of the containers began at facilities in China, Brazil and Pakistan. Detailed plans were formulated to start the program in India. Furthermore, through the introduction of returnable containers by suppliers delivering parts to Honda, we reduced the use of cardboard boxes and began work on implementing a repackaging program designed to reduce the disposal of used packaging (to begin in FY2008). We will continue with the conversion from disposable to returnable shipping materials.

\* Component parts sets are delivered to overseas plants for local assembly.

#### •External returnable container use rates

Area	Use rates
North America	69.7%
South America	14.0%*
Europe	69.7%
Asia/Oceania	51.7%
China	1.9%*
Average	49.6%

\* Program started in FY2007

#### •Using less packaging materials

Conversion from disposable to returnable shipping materials

Measure	Reduction
Using less steel	8,554 tons
Using less cardboard	387 tons

### Import of Completed Motorcycles

Using returnable cases when importing scooters from China, Honda is striving to maintain zero landfill disposal of shipping materials. By eliminating the use of cardboard and introducing returnable steel containers, we are continuing to use less packaging.

#### •Using Less Packaging in the Export and Import of Completed Motorcycles

Measure	Reduction
Using less steel	1,181 tons
Using less cardboard	852 tons

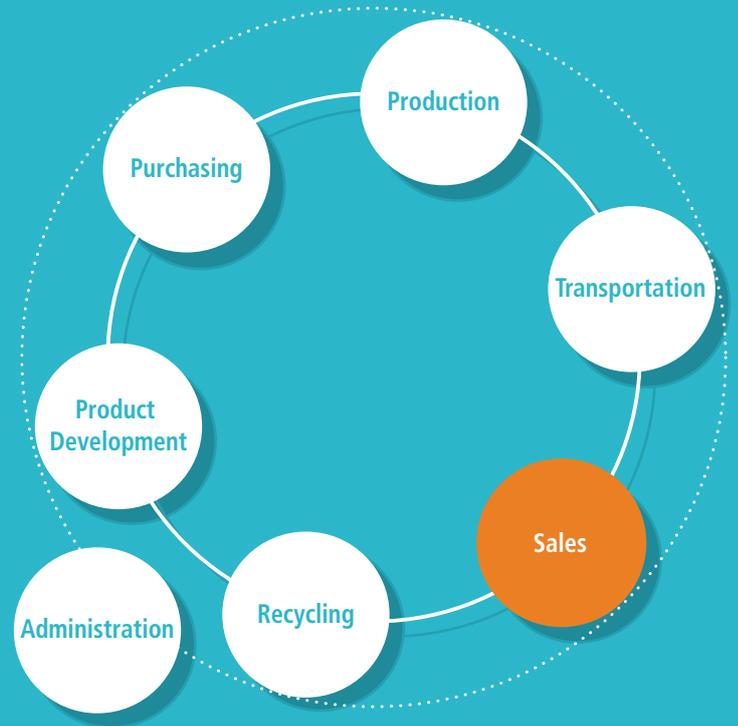
### Power Product Transportation Initiatives

Through the use of returnable steel cases for transporting medium and large marine outboards in Japan, Honda is using less steel and cardboard materials.

#### •Using Less Packaging in the Transportation of Power Products

Measure	Reduction
Using less steel	47 tons
Using less cardboard	16 tons

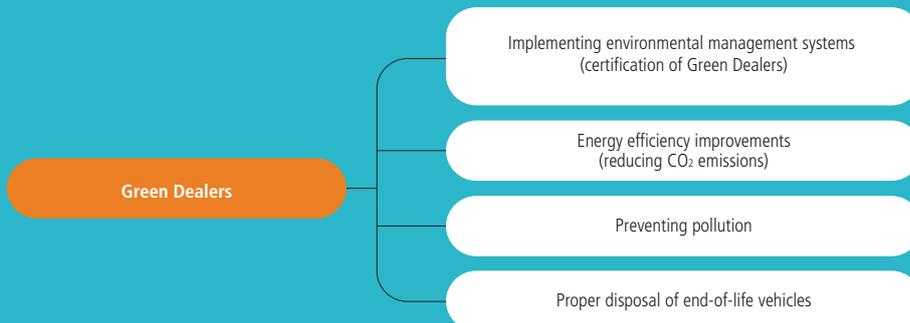
# Sales



## Encouraging Honda Dealers to Be Environmentally Responsible, Strengthening the Bond of Trust with Customers and Communities

Honda is continuing with the implementation of environmental management systems and promoting Green Dealer certification to further advance environmental initiatives in sales and service. We encourage dealers to be proactive in environmental conservation and to continuously implement measures to make their operations more environmentally responsible, enhancing the value they offer and the trust they earn from customers and communities.

### Sales Initiatives



# Green Dealers

Honda is in the process of introducing the Honda environmental management system at automobile dealers and continually working to become more environmentally responsible. One way we're achieving this is through the proper disposal of end-of-life products.

Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>Automobiles: Expand promotion of Eco Drive program</li> <li>Motorcycles: Expand environmentally responsible Dream Dealer Program</li> <li>Power Products: Expand Green Dealer initiative (raising environmental awareness among dealers)</li> </ul>	<ul style="list-style-type: none"> <li>Automobiles: Enhanced promotion of Eco Drive program by distributing 500,000 leaflets</li> <li>Motorcycles: Launched 21 environmentally responsible Dream Dealers (total: 87)</li> <li>Power Products: Delivered guidance on processing end-of-life equipment and oil absorption pads to raise awareness of Green Dealer initiative</li> </ul>

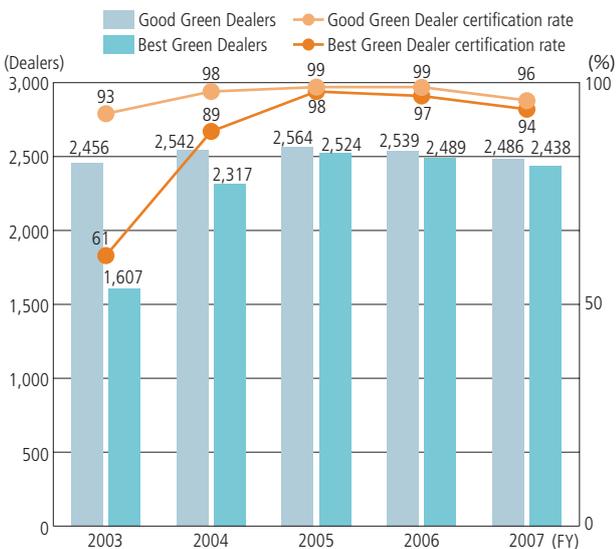
## Automobile Dealers

### Introduction of Environmental Management Systems

Honda has introduced the Green Dealer certification system\* for automobile dealers in conjunction with our own environmental management system. We promote the acquisition of certification by all dealers. At the end of March 2007 a total of 2,438 dealers were certified as Best Green Dealers, a step above certification as a Good Green Dealer. Best Green Dealers are recognized as having taken steps to improve energy efficiency, contribute to their communities and enhance their environmental conservation initiatives. In particular, these dealers are reducing CO<sub>2</sub> emissions by promoting energy conservation and eco-driving.

\* The Green Dealer certification system, developed by Honda on the basis of experience and expertise gained in qualifying for ISO 14001 certification, was established to verify implementation of Honda's environmental management system. It is implemented in two tiers. Good Green Dealer certification is awarded to dealers that comply with environmental regulations and make other efforts to protect the environment, such as cleaning up areas surrounding their facilities. Best Green Dealer certification is awarded to dealers that have improved their environmental practices. The number of certified dealers and the certification rate may vary in conjunction with the consolidation, closure and opening of dealerships.

### Trends in Green Dealer Certification



### Compliance with the End-of-Life Vehicle Recycling Law

To ensure compliance with the End-of-Life Vehicle Recycling Law, Honda is proactive in raising awareness among automobile dealers and other concerned parties. In FY2007, the third year the law has been in effect, we strengthened our procedures and our relationships with other organizations involved with end-of-life vehicle recycling.

### Case Study

#### Environmental Communications through our Dealers

As part of the effort to enhance communications between our dealers and our customers, we produced an Eco Drive pamphlet on energy-efficient driving, distributing 500,000 copies through 2,400 dealers throughout Japan. Many dealers took the opportunity of distributing the pamphlet to encourage customers to act upon the tenets of environmentally responsible mobility. At one Best Green Dealer, service technicians offered to check customers' tire pressure, helping ensure optimal fuel efficiency and safety while enhancing customer satisfaction.



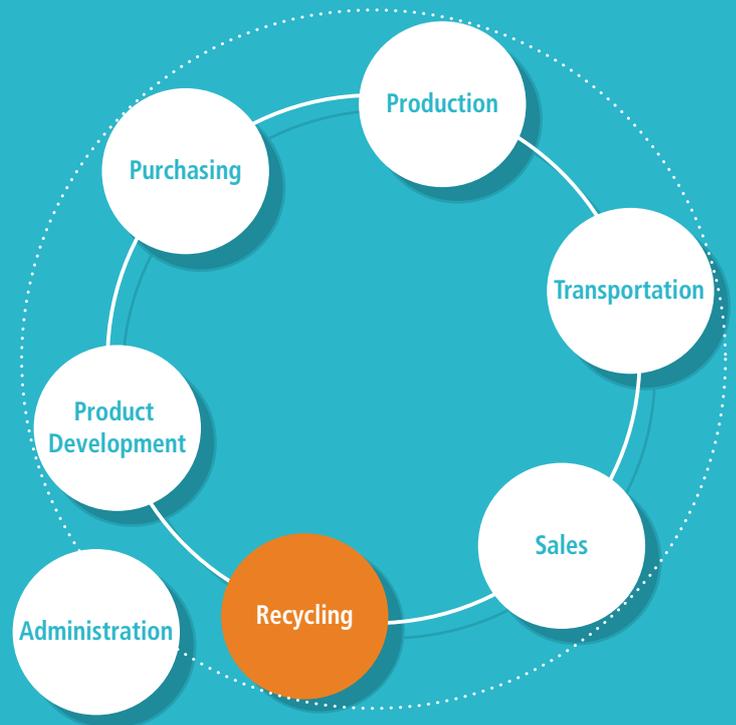
Checking a customer's tire pressure



# Product Recycling

(Reduce, Reuse, Recycle)

Since the introduction of Japan's End-of-Life Vehicle Recycling Law in 2005, automakers have been obliged to recycle and properly dispose of shredder residue, airbags and CFCs. Honda has long been proactive in implementing product recycling. In 1991 we began recovering and recycling replacement bumpers. In 1998 we launched the sale of remanufactured parts. In 2004 we began recovering and recycling automobile oil filters. Again and again, Honda has been first among Japan's leading automakers to take action on recycling.

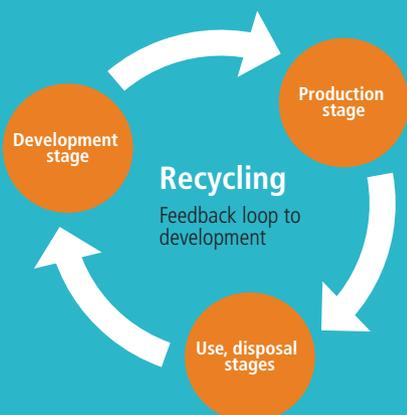


## Honda's Policy on Product Recycling

Honda independently implements advanced recycling measures, minimizing the raw materials used in product creation. We take this approach in every stage of the life cycle of our products, in accordance with our reduce, reuse and recycle principle. We seek to reduce the weight of components and prolong their service lives (to reduce the use of resources and generation of waste); to reuse parts whenever feasible; and to recycle materials and energy. We follow these fundamental policies:

- 1 Design products that are superior in performance in accordance with the reduce, reuse, recycle principle
- 2 Implement economical and effective recycling measures and use the results as feedback in new product development
- 3 Give priority to designs that allow for reusability, and reduce the energy and other resources needed for reuse and recycling
- 4 Minimize substances of concern contained in products, taking into account the disposal of end-of-life vehicles
- 5 Cooperate and collaborate with all stakeholders

## Product Recycling



	Development	Production	Use	Disposal
<b>Reduce</b>	Design for reduction			
<b>Reuse</b>	Design for reusability, recyclability		Recycled/reused parts	
<b>Recycle</b>	Evaluation	Recycling of byproducts*		Recycling of IMA batteries
		Recovery, recycling of bumpers		Compliance with the End-of-Life Vehicle Recycling Law
		Reduction of environmental impact		Voluntary recycling of motorcycles

\* For more information on the recycling of byproducts, please refer to the results described in the Production section of this report.

# Development Initiatives

Honda prioritizes the recyclability of our products. Based on the reduce, reuse and recycle principle, we carefully select materials and design structures for our products in the development stage.



\* In accordance with the specifications and calculation formula stipulated by the Japan Automobile Manufacturers' Association Guidelines

## Automobiles

### Reduce, Reuse, Recycle Assessment System

Since FY2002 we have been using this assessment system to evaluate and improve the design of new automobiles.

### Design for reducing

In addition to downsizing and reducing the weight of metal parts, including the body frame, engine and transmission, we have reduced the weight of non-metal parts by using better materials and enhancing the composition of parts.

#### • Downsizing and reducing the weight of non-metal parts

We reduced the total weight of non-metal parts for the new Stream by more than 7.8 kg. We also made efforts to reduce automobile shredder residue (ASR)\* generated from end-of-life vehicles, thus further reducing waste.

\* Residue remaining after the removal of metal from dismantled and shredded end-of-life vehicles

### Design for Reusing and Recycling

Honda achieved 90% or greater recyclability (based on JAMA guidelines) for all new models released or updated in FY2007 by implementing the following measures:

#### • Standardization of resins (switch to olefin resin)

Highly recyclable olefin resins are used in most injection-molded interior and exterior parts for all new models released in FY2007. Also, material identification marks are displayed on all resin and rubber parts large enough for such labeling.

#### • Use of recycled materials (resins)

As an example of achievements in FY2007, we used 7 kg of recycled resins for the Crossroad.

#### • Structural design for recyclability

We reduced the number of joints in parts and simplified structures by applying clips and set-in structures for all new models released in FY2007. Also, we standardized parts to facilitate maintenance and improve the recyclability of materials and reusability of parts.

### Reducing Use of Substances of Concern

#### • Using less of four heavy metals

In the production of the Crossroad and other vehicles released in FY2007, we attained the targets for reduced use of the four heavy metals (lead, mercury, hexavalent chromium and cadmium) included in the voluntary reduction targets\* set by the Japan Automobile Manufacturers Association (JAMA).

\* Exceptions provided for in the case of lead and mercury

JAMA Voluntary Reduction Targets (new automobiles)

Target substance	Target period	Details
Lead	Starting in 2006	Amount per vehicle (baseline: 1996) (Automobiles: 10% or less) (Motorcycles: 60 g or less)
Mercury	Starting in 2005	Banned except for some parts (small amounts allowed in discharge headlights and LCD panels for navigation systems)
Hexavalent chromium	Starting in 2008	Banned
Cadmium	Starting in 2007	Banned

#### • Reducing HFC134a Use

We expanded the installation of air conditioners that reduce the use of HFC134a by approximately 10% (baseline: FY1996), using them in 24 out of 28 models. For air conditioners that do not use HFC134a, we have been implementing the following measures since FY2006:

- Gathering information on industry trends and technological developments
- Examining the viability of adopting such air conditioners for automobiles

#### • Reducing PVC Use

To facilitate the recycling of automobile shredder residue (ASR) in compliance with the End-of-Life Vehicle Recycling Law, we are reducing the use of polyvinyl chlorides (PVCs). By discontinuing the use of PVCs in undercoating and interior and exterior resin parts, we reduced the content of chlorine in ASR to 1% or less in all new models released in FY2007.

## Motorcycles

### Reduce, Reuse, Recycle Assessment System

Since 1992 we have been using this assessment system to evaluate and improve the design of new motorcycles.

### Smaller by Design

#### •Reducing size and weight

To reduce size and weight, we are introducing the use of hollow aluminum die-cast weldable motorcycle frames. This kind of thinner, lighter and more easily recyclable frame is used in the CB600F, which is also manufactured at facilities outside Japan.



CB600F

#### •Extending service life

We expanded the use of Honda's original puncture-proof tire technology, equipping approximately 1,800,000 motorcycles with it in FY2007.

### Recyclable by Design

#### •Improved recyclability

At least 95% of the materials used in models introduced or updated in FY2007 are recyclable. To further improve recyclability, we applied the latest IT technology to gather and calculate recycling data. Using this system, we will work toward product designs that attain greater than 95% recyclability. To help facilitate increased recycling, we also mark the name of the material whenever possible, including even very small resin parts.

#### •Use of recycled resins

Recycled materials are used in approximately 15% of resin parts on scooters. We are also expanding the use of recycled resins to include fenders, undercovers and other parts for motorcycles.

### Reducing the Use of Substances of Concern (SOCs)

#### •Reducing the use of four heavy metals

One of Honda's commitments was to reduce the use of four heavy metals considered to have adverse effects on the environment (lead, mercury, hexavalent chromium and cadmium) in all models produced in Japan by the end of 2005. We attained our voluntary reduction targets for lead, mercury and cadmium by December 2005. For hexavalent chromium, which was still in use in minute amounts, we attained our target by the end of 2006.

Note: We achieved the voluntary reduction target for lead set by JAMA (see p.49 for details) in January 2005; for mercury prior to 2001; and for hexavalent chromium in March 2006, all ahead of schedule.

## Power Products

### Recyclability by Design

To achieve our target of recycling at least 95% of the materials used in power products, we proactively reduced the generation of automotive shredder residue (ASR) and promoted the use of recovered heat energy.

#### •Improved recycling

We achieved an average recycling rate of 96.5% for the four models released in FY2007 (based on Honda calculations, including recovered heat energy).

### Reducing Use of Substances of Concern (SOCs)

#### •Reduction in use of four heavy metals

One of Honda's commitments was to reduce the use of four heavy metals considered to have adverse effects on the environment (lead, mercury, hexavalent chromium and cadmium) in all power products produced in Japan by the end of 2006. No regulatory standards for power products are in effect in Japan, but Honda is working to voluntarily reduce the use of SOC's in power products in line with JAMA's voluntary targets. We have already attained the targets for lead, mercury and cadmium. For hexavalent chromium, we have eliminated all use except for anti-corrosion treatments in certain marine outboards.

# Reusability Initiatives

Honda is promoting a recycling system for end-of-life products, including technological development and support. Our efforts also focus on increasing the recovery of parts, including end-of-life bumpers, the expansion of their recycling and reuse, and improvements in recycling rates.

Annual Targets and Results	FY2007 Target	FY2007 Results
	<ul style="list-style-type: none"> <li>Expand range of recyclable parts and their recovery</li> </ul>	<ul style="list-style-type: none"> <li>Expanded range of recycled parts and their recovery</li> </ul>

## Recovery, Recycling and Reuse of Parts

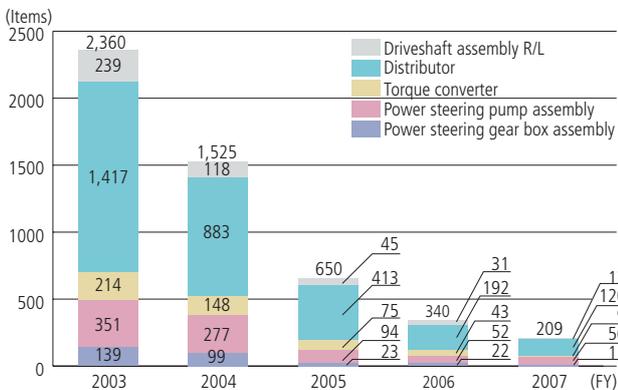
### Expanding the Honda Recycle Parts Business

Honda has sold highly functional recycled parts, such as torque converters, since 1998. In July 2001 we also began marketing reused parts, expanding the operation known as Honda Recycle Parts.

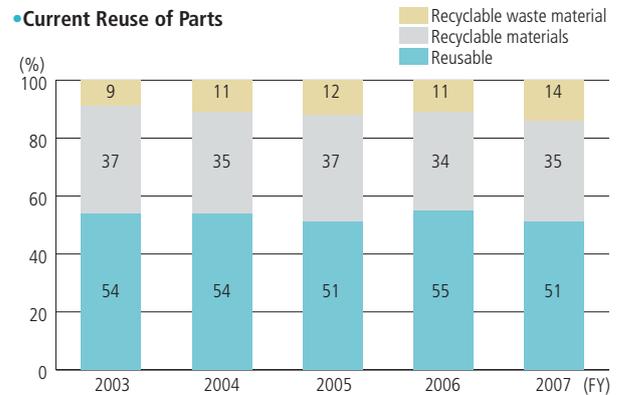
#### Recycled parts lineup and sales performance

Recently, the number of models in which reused parts can be fitted has declined, and both the performance and durability of functional parts have improved. To enhance customer satisfaction, we have considered whether we should narrow the range of recycled parts offered or increase the number of models in which these parts can be used. We chose the latter course.

#### Sales Trends in Japan



#### Current Reuse of Parts

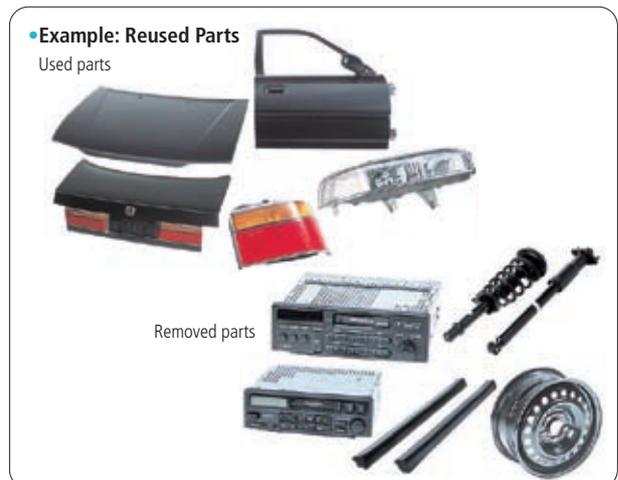


#### Reused parts

Since July 2001 in Tokyo, and January 2002 in the rest of Japan, customers have been offered the same convenient way of ordering both reused and new parts through Honda's genuine-parts distribution channels. Reused parts are collected as second-hand parts (16 items) that are selected and removed from end-of-life vehicles up to two generations old, and parts (nine items) that are removed from in-use vehicles when optional parts are installed in their place. In FY2008 we aim to expand our lineup of reused parts. We're examining the viability of new ways of providing customers with added convenience, such as using an external sales infrastructure.

#### Current Reuse of Parts

Through the use of recovered parts and efforts to recycle materials, we have achieved a reuse rate of 86%, as shown in the adjacent graph.



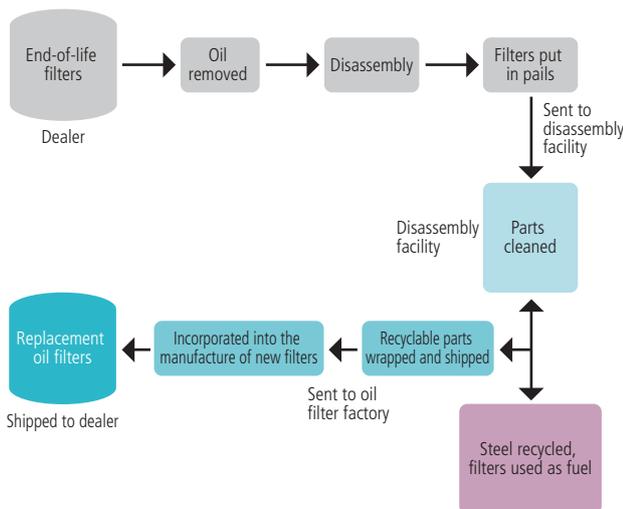
### Recycling of Oil Filters

We collect and disassemble end-of-life oil filters to recycle them as metal and fuel. We also reuse some of their components as production parts. We started recovering these filters through Honda dealers nationwide in January 2004, and began recovering filters from service and repair companies in 2005. In addition, we increased the number of oil filter types targeted for recovery from two to five, and in FY2007 succeeded in recovering about 27% of all filters sold in Japan. We will make further efforts to increase the number of end-of-life oil filters collected.



End-of-life filters are disassembled and recycled

#### •Flow of oil filter recycling



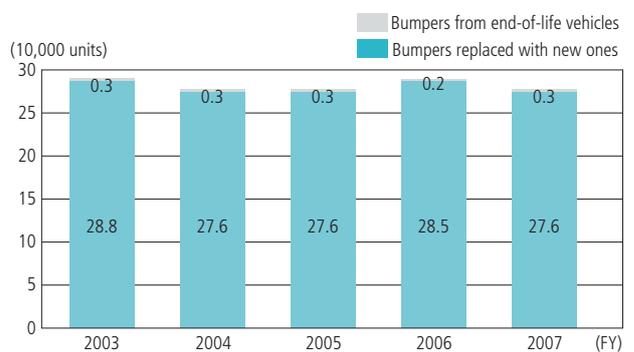
### Recovery and Recycling of Bumpers

In FY2007 we recovered 279,323 replaced bumpers (948 tons) from Honda automobile dealers and service and repair companies. A total of 1,479 tons of recycled resin were re-used.

#### •Number of Bumpers and Amount of Resin Recovered in FY2007

**279,323 Bumpers, 948 tons of resin**  
 Bumpers replaced for repair: 276,000 (937 tons)  
 End-of-life vehicle bumpers: 3,323 (11 tons)

#### •Number of Bumpers Recovered in Japan

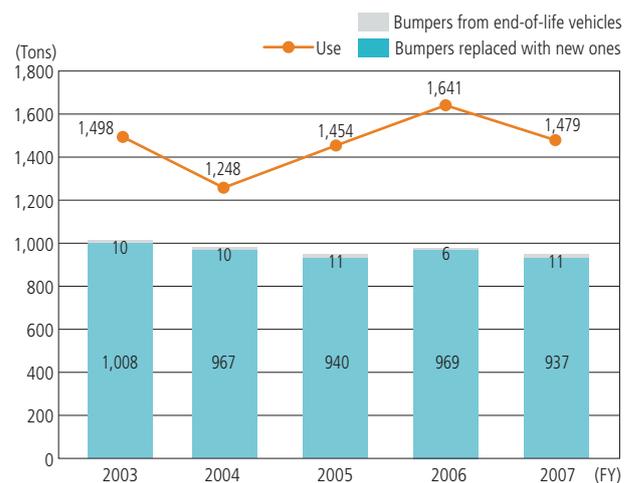


#### •Use of recycled resin: 1,479 tons

#### •Products made from recycled bumper resin

Automobiles: bumpers for repair, splash shields, splash guards, etc.  
 Motorcycles: undercover

#### •Use of Resin Recycled from Recovered Bumpers



#### Notes:

1. The use of recycled resin exceeds the amount of resin recovered because it includes the use of resin recovered from bumpers found to be defective in the production process and the recycled resin stored since from the previous year (322 tons).
2. For the use of resin recycled from recovered bumpers, the amounts for FY2004 and later are calculated assuming the unit weight of a bumper to be 3.4 kg.

# Disposal

Honda operates an efficient, stable recycling system for end-of-life automobiles in compliance with Japan's End-of-Life Vehicle Recycling Law. We are also promoting proper recycling and disposal of motorcycles through voluntary measures.



## Automobiles

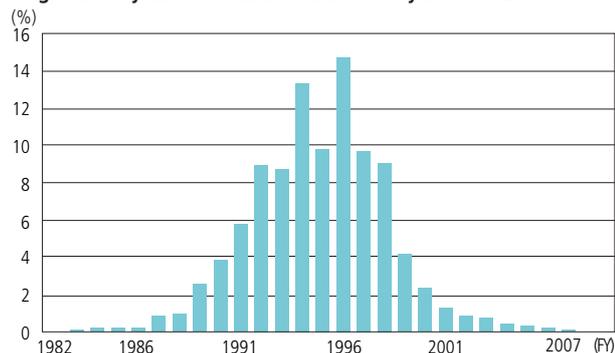
### End-of-Life Recycling Law

Japan's End-of-Life Vehicle Recycling Law, enacted in January 2005, is intended to promote environmental conservation and the effective use of resources through measures that ensure the responsible and efficient recycling of end-of-life vehicles. Under the law, automakers are obliged to collect and properly dispose of the following three items:

- Fluorocarbons used as air conditioner refrigerants that would contribute to depletion of the ozone layer and global warming if released into the atmosphere;
- Airbags, which are difficult to dispose of because they contain explosive agents;
- Automobile shredder residue (ASR)—what remains after useable materials are extracted from end-of-life vehicles.

Complying with this law, Honda is optimizing recycling-oriented measures applied throughout the life cycle of the automobile, from development to disposal. A key challenge in automobile recycling is correctly tracking the number of automobiles that need to be recycled in a given year. The average product life of vehicles recycled in FY2007 is estimated at 12.9 years. The provisions of the End-of-Life Vehicle Recycling Law tend to motivate automakers to strive to extend the product life of vehicles.

#### •Registration year of Honda automobiles recycled in FY2007



### Recycling Fees

Honda recycling fees cover the cost of properly disposing and recycling its products at minimal cost to the customer. We maintained our recycling fees at a reasonable level for FY2007 through efficient disposal of end-of-life vehicles.

### Recycling of Fluorocarbons, Airbags and ASR

#### •Fluorocarbons

The system we have implemented for the disposal of fluorocarbons contained in automobile air conditioners is designed to prevent their release into the atmosphere, entrusting fluorocarbon

recovery, transportation and disposal to the Japan Auto Recycling Partnership (JARP). Unfortunately, in FY2007 there were two incidents in which gas was emitted before its transfer to JARP, and one in which gas was emitted after the materials were transferred. Honda is treating these incidents with the utmost seriousness, and working closely with other automakers and JARP to put in place the measures necessary to prevent any future occurrence.

#### •Airbags

The recycling of inflators that activate airbags and pretensioners—essential automotive safety equipment—requires special procedures. There are two methods: (1) removing the unused inflators from the module before recycling them at designated facilities; and (2) deploying the airbags inside end-of-life vehicles and then recycling the used inflators. While ultimately entrusting the choice of method to the dismantling specialists, Honda is encouraging them to deploy airbags inside end-of-life vehicles. Approximately 83% of all airbags are now deployed inside end-of-life vehicles prior to recycling. We will continue to promote this method in cooperation with dismantling partners while continuing to refine the design of the equipment used in this method. Furthermore, all Honda vehicles from 1998 onward are designed with a system that facilitates simultaneous deployment of all airbags in a vehicle, as opposed to one-by-one deployment. Almost all Honda vehicles now on the road are equipped with this system, which significantly reduces the burden on dismantling companies. We are supporting ongoing improvements in the airbag and inflator collection and recycling processes in cooperation with JARP as we continue to entrust these processes to this organization.

#### •ASR

End-of-life vehicles are dismantled and shredded. Scrap metal is removed and what remains is automobile shredder residue (ASR). Automobile manufacturers are responsible for recycling ASR. For the efficient and reliable recycling of ASR, Honda has formed a partnership called the TH Team with Toyota, Daihatsu and Hino. Japan's End-of-Life Vehicle Recycling Law provides phased-in requirements for ASR recycling (a recycling rate of 30% by 2005, 50% by 2010 and 70% by 2015), and Honda is implementing the measures needed to comply with these criteria in advance of the deadlines. Thanks to the efforts of the TH Team, a number of problems at recycling facilities that led to temporary processing shutdowns were resolved, allowing processing to be restarted promptly and without any significant impact on performance. Through additional investment in facilities and implementation of full recycling\* for more than 13.3% of end-of-life vehicles, we increased the ASR recycling rate as planned, reaching a rate of 68.6%.

\* Recycling in which end-of-life vehicles are not shredded but dismantled into very fine pieces and fully recycled.

**FY2007 Results**

Japanese automakers have been complying with Japan's End-of-Life Vehicle Recycling Law since it was enacted January 1, 2005. In FY2007 3.57 million end-of-life vehicles were recycled and according to the best available data, approximately 333,246 end-of-life Honda vehicles were shredded. The average service life of these automobiles was 12–13 years. The rate of installation of air conditioners on Honda automobiles has been increasing rapidly since 1989, and the rate for airbags has been increasing rapidly since 1991. Thus the recycling of end-of-life vehicles with air conditioners and airbags increased this year.

**Trends in Recycling in FY2007**

**•Fluorocarbons**

From April 2006 to March 2007 we recovered 77,420 kg of fluorocarbons from 249,158 end-of-life vehicles. Fluorocarbons accounted for 35% and HFC for 65% of the total fluorocarbons recovered. This shift in proportion of the two substances recovered—from 47% CFCs and 53% HFCs in the previous fiscal year—can be attributed to a changeover from CFC to HFC use in air conditioners. We received a total of ¥522,179,038 in deposits from customers for the recycling of fluorocarbons. We spent a total of ¥547,246,514 on this recycling, including internal costs, recording a deficit of ¥25,067,476, or approximately ¥101 per vehicle.

**•Airbags**

Among the end-of-life vehicles disposed of in FY2007, 77,699 vehicles were equipped with airbags. The increase of 55% over the previous year can be attributed to the rapid increase in vehicles that were equipped with airbags between 1991 and 1993. Airbags from 64,170 units (82.6% of these vehicles) were deployed before being removed from the vehicle.

We also recovered 156,484 inflators. The average number of inflators per vehicle was two. The number of inflators recovered at designated collection sites totaled 23,951 units, and the total weight of inflators received by recycling facilities was 16,192 kg. 15,238 kg of inflators were recycled for a recycling rate of 94.1%. We thus exceeded the legally mandated recycling minimum level of 85%. We received ¥139,247,869 in deposits for recycling airbags and spent a total of ¥167,041,139, thus recording a deficit of ¥27,793,270, or approximately ¥358 per vehicle.

**•ASR**

We accepted 333,246 end-of-life vehicles destined for shredding and the shredder residue of 289,062 vehicles. 56,945 tons of residue were delivered to recycling facilities, where 43,693 tons were actually recycled, for an ASR recycling rate of 68.6%.

As planned, our recycling rate is increasing and we are reaching targets in advance of legally mandated standards.

We received ¥1,955,838,038 in deposits from customers for recycling ASR and spent a total of ¥1,915,981,327 on recycling, including internal costs, recording a surplus of ¥39,856,711, or approximately ¥120 per vehicle.

**•Total deposits and costs for recycling of fluorocarbons, airbags and ASR**

In FY2007 we received a total of ¥2,617,264,945 to recycle fluorocarbons, airbags and ASR, incurring recycling costs totaling ¥2,630,268,980, including internal costs, and recording a deficit of ¥13,004,035 for FY2007.

Honda sets its recycling fees for these three items so as to achieve balance over the medium and long term. Looked at annually, we expect both surpluses and deficits. For related incomes and expenditures unrelated to legal compliance we recorded a deficit of ¥14,552,071.

**•Outline of Recycling Results for FY2007**

Fluorocarbons	Recovered without deployment	77,420 kg/249,158 vehicles
Airbag inflators	Recovered after deployment	156,484 units
	Units processed	132,533 units/77,699 vehicles
	Recycling rate	94.1% (Standard: 85% or more)
Shredder residue	Volume received	56,945 tons/289,062 vehicles
	ASR that would have been generated had full recycling not been done	7,618 tons/44,184 vehicles
	Recycling rate	68.6%

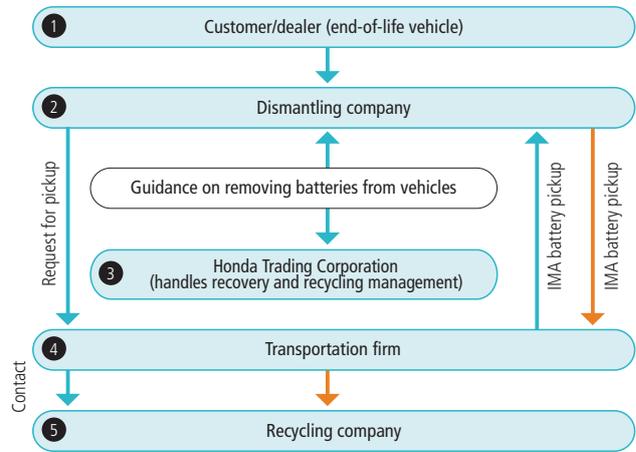
Total recycling deposits received	¥2,617,264,945
Total recycling costs	¥2,630,268,980

(For further details, please refer to p.87)

### Voluntary Recovery of Hybrid Vehicle Batteries

Honda uses recyclable nickel metal-hydrate (NiMH) batteries in Integrated Motor Assist (IMA) battery packs inside its hybrid vehicles. As shown in the adjacent diagram, we handle all end-of-life IMA batteries through our voluntary recovery system. Recovered IMA batteries contain rare metals, which are recycled for use in the manufacturing of other batteries and stainless steel. Launched in 1999, this voluntary system allowed us to recover 450 IMA batteries in FY2007.

### The recovery of IMA batteries from hybrid vehicles



## Motorcycles

### Voluntary Recycling Activities

In cooperation with other motorcycle manufacturers and a number of motorcycle importers in Japan, Honda began voluntary recycling of motorcycles on October 1, 2004. The program, which is proceeding smoothly in its third year with the cooperation of dealers, importers and others, is a pioneering initiative in regular, voluntary recycling of motorcycles. Under this program, motorcycles that customers want to dispose of are accepted at dealers or other specified facilities and appropriately processed and recycled at recycling facilities. Honda will endeavor to reduce the recycling cost of motorcycles and strengthen measures to properly recycle them in Japan. We hope to replicate this kind of program in other countries.



Shredding process

### FY2007 Recycling Results

#### Number of motorcycles accepted

Of the end-of-life motorcycles accepted at designated facilities, 2,440 were Honda products, accounting for 61.3% of the total (52% of dealers accepting end-of-life motorcycles for recycling were Dream Dealers).

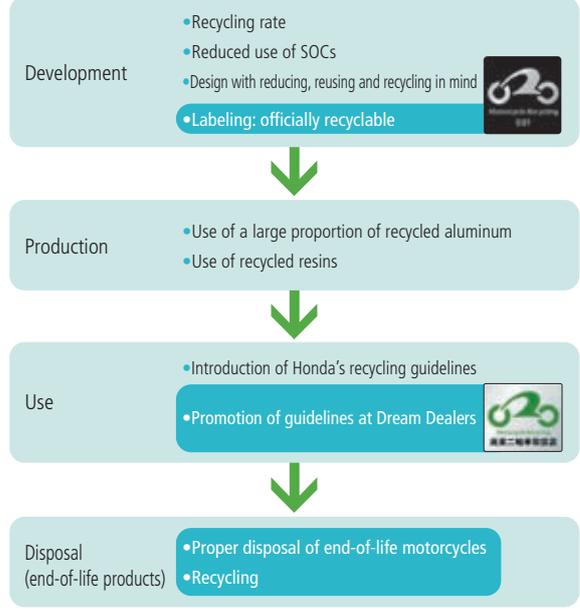
### Recycling rate

According to calculations based on the number of motorcycles handled at 14 disposal and recycling facilities, the recycling rate was 83.9% for Honda scooters (including three-wheel scooters and commercial-use scooters) and 85.1% for Honda motorcycles. On a unit-average basis, we achieved an 84.4% recycling rate.

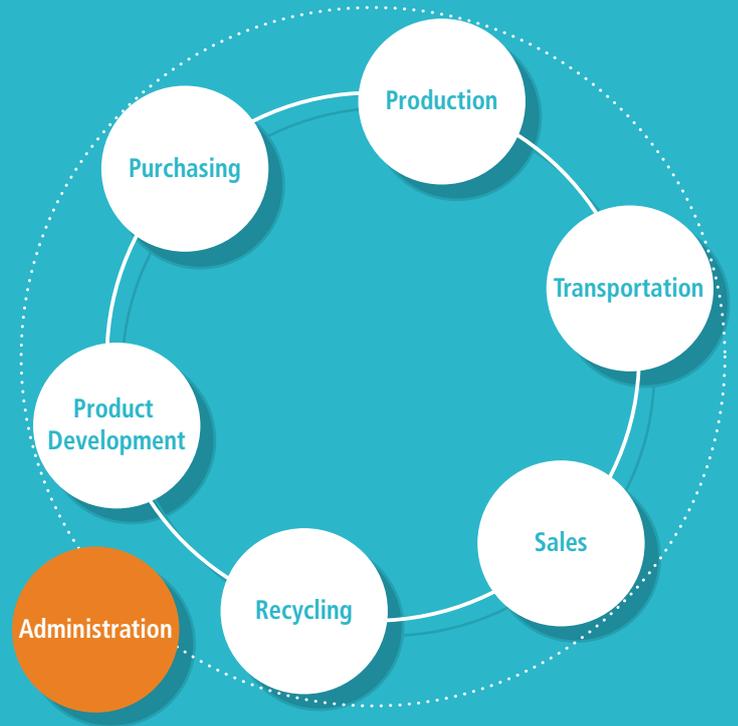
### Labeling as officially recyclable

All Honda motorcycles sold in Japan bear a label indicating that they are recyclable.

### Outline of Honda's Motorcycle Recycling System



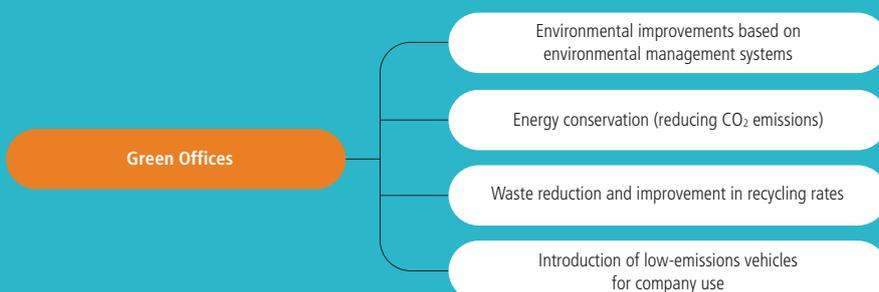
# Administration



## Environmentally Responsible Office Management

Honda is focused on environmental conservation measures in the management of its office facilities. Ideally, these measures will lead to customers, suppliers and factory associates strengthening their own environmental conservation measures.

### Administration initiatives



# Green Offices

Honda is proactively implementing environmental initiatives at its offices. We will further reduce the environmental impact of our office operations in a coordinated manner. We will also undertake environmental conservation initiatives in all our business operations to make our offices more environmentally responsible as part of our effort to help preserve the global environment.

Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions at four offices: 11,326 CO<sub>2</sub> tons</li> <li>Waste generated at four offices: 512 tons</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions: 11,839 CO<sub>2</sub> tons</li> <li>Waste generated: 291 tons</li> </ul>

## Coordinated Efforts to Reduce the Environmental Impact of Our Offices

Our Aoyama Head Office building acquired ISO 14001 certification in November 1999, and we have been working continuously to reduce the environmental impact of all our office operations. The Wako building acquired ISO 14001 in November 2005, shortly after its opening in August 2004. In FY2007 the Aoyama, Wako, Yaesu and Shirako offices worked to reduce energy use and the generation of waste. Total CO<sub>2</sub> emissions for the four facilities were 513 tons, and waste was reduced to 221 tons. In FY2008 Honda's nine offices (Aoyama, Wako, Shirako, Yaesu, Sapporo, Sendai, Nagoya, Osaka and Fukuoka) will be included in a drive to reduce environmental impact and strengthen our overall environmental conservation efforts in the context of Honda's Green Office initiative.

the global environment and coexisting harmoniously with communities, we are striving to lead the way in the 21st century with our Green Office initiative. With the participation of Honda Technical College, the Honda Group is contributing even more proactively to raising environmental awareness. A total of 1,460 people have enrolled for the new environmental studies courses offered by the college at its campuses in the Tokyo and Osaka areas.



Honda Technical College

### Administration Targets and Results

	FY2007 Targets*1	FY2007 Results*1	FY2008 Targets*2
CO <sub>2</sub> emissions (CO <sub>2</sub> tons)	11,326	11,839 (95.6% attainment)	12,913
Waste generated (tons)	512	291 (175.9% attainment)	502

\*1 Total for four buildings (Aoyama, Wako, Yaesu, Shirako)  
 \*2 Starting in FY2008, in addition to Aoyama, Wako, Shirako, and Yaesu, the Sapporo, Sendai, Nagoya, Osaka, and Fukuoka buildings will be included.

### Honda Group Targets

	FY2008 Targets
CO <sub>2</sub> emissions (CO <sub>2</sub> tons)	38,047
Waste (tons)	2,551

Note: Starting in FY2008, targets and results will be reported for the Honda Group, including not only Honda Motor and its nine buildings (Aoyama, Wako, Shirako, Yaesu, Sapporo, Sendai, Nagoya, Osaka and Fukuoka), but also several companies of the Honda Group in Japan—Mobility Land, Honda Kaihatsu, Honda Sun, Honda Comtec, Honda Technical College, Honda Airways, Honda Trading, Honda Finance, Rainbow Motor School, Kibo no Sato Honda, Honda R&D Sun, KP Tech, Chu-o Air Survey Corp., Circuit Service Creates and Japan Race Promotion—for a total of 16 companies and 25 facilities.

## Strengthening of Honda Group Administration Initiatives

With the growth in awareness of corporate social responsibility, Honda Motor and the 16 companies and 25 facilities of the Honda Group intensified efforts to reduce the environmental impact of their operations in FY2007. Recognizing the importance of conserving

## Use of environmentally responsible low-emissions vehicles as company cars at main facilities

### Use of Japan's government-designated environmentally responsible vehicles

(Non-gasoline vehicles meeting the government's green procurement criteria—see Notes 1-6 below)

FY	Fuel cell vehicles	Electric vehicles	Hybrid vehicles	Natural gas vehicles	TOTAL	Introduction rate
2003	2	10	36	20	68	3.0%
2004	1	6	66	17	90	3.4%
2005	8	6	62	11	87	3.4%
2006	13	5	87	9	114	4.0%
2007	9	4	80	8	101	3.6%

### Introduction of Low-Emissions and High Fuel Efficiency Vehicles

(Gasoline, hybrid, natural gas vehicles)

FY	Honda LEVs	Low-Emissions Vehicles	Good Low-Emissions Vehicles	Excellent Low-Emissions Vehicles	Ultra-Low Emissions Vehicles	Very Low-Emissions Vehicles	TOTAL	Introduction rate
2001	137	1,568	329	1	0	0	2,035	90.6%
2004	516	1,571	313	1	5(4)	19(14)	2,439	93.5%
2005	300	1,097	239	1	88(80)	317(310)	2,467	97.0%
2006	890	909	182	1	256(251)	291(265)	2,691	93.9%
2007	1,131	626	170	1	221(209*)	199(193*)	2,485	88.9%

Note 1: Total vehicles introduced: FY2003 2,247; FY2004 2,609; FY2005 2,543; FY2006 2,865; FY2007 2,796

Note 2: The items in parentheses refers to Japan's government-designated environmentally responsible vehicles

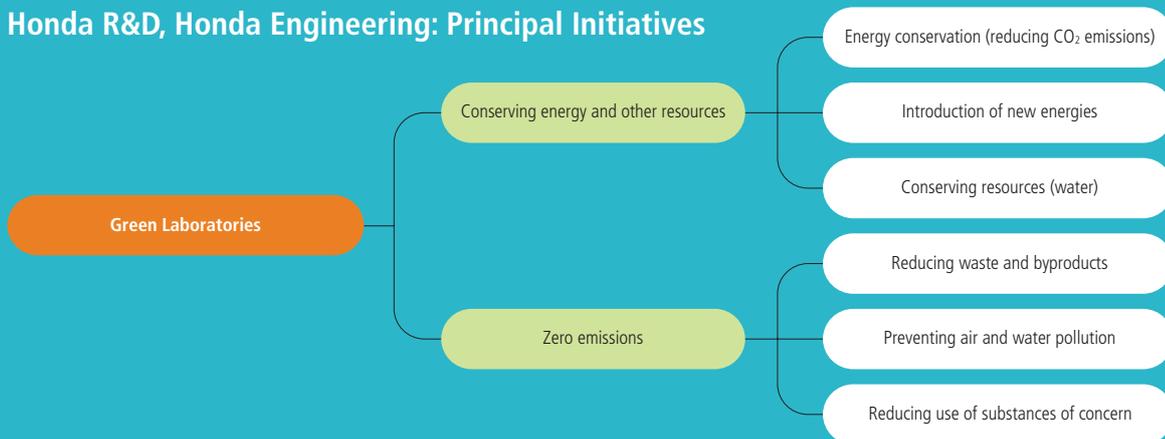
\*1 Four vehicles comply with the FY2011 fuel efficiency standards + 5% requirement  
 \*2 15 vehicles comply with the FY2011 fuel efficiency standards + 5% requirement; one vehicle complies with the FY2011 fuel efficiency standards + 10% requirement; two vehicles comply with FY2011 fuel efficiency standards + 20% requirement  
 \*3 10 vehicles comply with the FY2011 fuel efficiency standards + 5% requirement; two vehicles comply with the FY2011 fuel efficiency standards + 10% requirement  
 \*4 58 vehicles comply with the FY2011 fuel efficiency standards + 5% requirement  
 \*5 127 vehicles comply with the FY2011 fuel efficiency standards + 5% requirement; three vehicles comply with the FY2011 fuel efficiency standards + 10% requirement  
 \*6 725 vehicles comply with the FY2011 fuel efficiency standards + 5% requirement; 176 vehicles comply with FY2011 fuel efficiency standards + 10% requirement; 69 vehicles comply with FY2011 fuel efficiency standards + 20% requirement

# Honda Group Companies in Japan

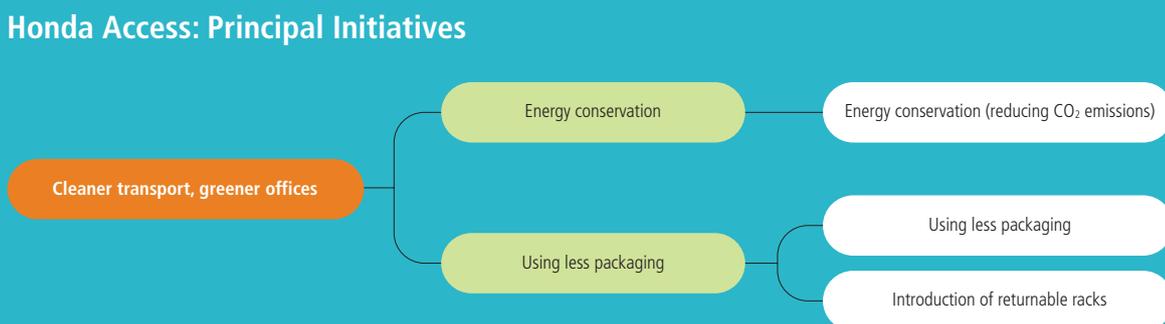
## Linked by a shared set of basic principles, acting independently on behalf of all

While sharing a set of basic principles, Honda Group companies in Japan each focus on their own operations and products while keeping in mind the common goal of reducing environmental impact. Each acts independently to confront environmental issues at hand, setting high targets and working proactively to conserve the environment. Here we focus on the initiatives of the Honda Group and in particular on those undertaken by Honda R&D, the Group's research and development arm; Honda Engineering, in charge of production technology; and Honda Access, in charge of research, development and sales of genuine Honda parts and accessories.

### Honda R&D, Honda Engineering: Principal Initiatives



### Honda Access: Principal Initiatives



# Honda R&D Initiatives

In charge of research and development for the Honda Group, Honda R&D aims to research and develop products with the world's lowest environmental impact and to maximize the environmental responsibility with which its own facilities are operated.

Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>Per-unit CO<sub>2</sub> emissions: 3.2% reduction (baseline: FY2005)</li> <li>Total CO<sub>2</sub> emissions: reduce to 144,000 CO<sub>2</sub> tons</li> <li>Per-unit waste generated: 9% reduction (baseline: FY2005)</li> </ul>	<ul style="list-style-type: none"> <li>Per-unit CO<sub>2</sub> emissions: 3.8% reduction (baseline: FY2005)</li> <li>Total CO<sub>2</sub> emissions: 144,000 CO<sub>2</sub> tons</li> <li>Per-unit waste generated: 13% reduction (baseline: FY2005)</li> </ul>

## Environmental Impact Reduction

### Energy Savings

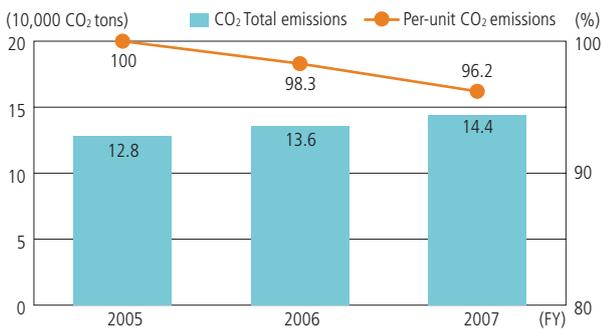
In FY2007 Honda R&D exceeded its target of a 3.2% reduction in per-unit CO<sub>2</sub> emissions, achieving a reduction of 3.8%, and attained its target of 144,000 tons of total CO<sub>2</sub> emissions. Further, as a result of the introduction of a cogeneration system, a solar energy system and a NaS battery system at the Automobile R&D Center (Tochigi), a total of 3,433 kW of energy were generated from new energy sources.

### Eliminating Waste

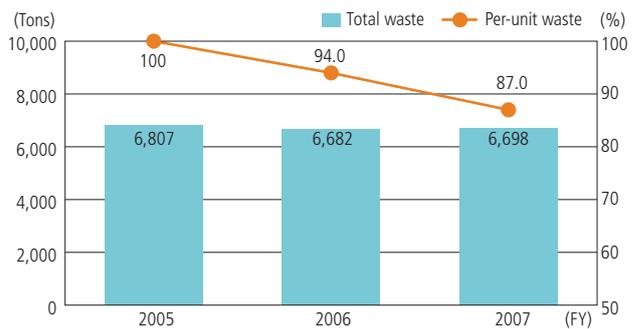
#### Reducing Waste (Byproducts)

Total waste generated by Honda R&D in FY2007 was 6,698 tons, a 13% reduction in per-unit volume from FY2005, exceeding the target of 9%.

#### Total and Per-unit CO<sub>2</sub> Emissions (FY2005=100%)



#### Total and Per-unit Waste (FY2005=100%)



### Case Studies

#### Introduction of the World's Largest NaS Battery System Automobile R&D Center (Tochigi)

At the Automobile R&D Center (Tochigi), preparations are underway for the start of operations of the world's largest NaS (sodium-sulfur) battery system (12,000 kW capacity), designed to make efficient use of surplus electricity. The NaS system features triple the electrical efficiency of conventional lead acid batteries. It stores energy from the grid during low-demand



The new NaS Battery System at the Automobile R&D Center (Tochigi)

nighttime hours for use during high-demand daytime hours when the price is higher. Its use will result in a reduction in cost and environmental impact, as well as a power supply that is continuous, even in the event of a grid power outage. Based on anticipated efficiency gains from this system, it is anticipated that Honda R&D will save some 9,000 kW of peak demand electricity and reduce CO<sub>2</sub> emissions by 1,850 tons per year.

#### Putting Natural Energy to Work Automobile R&D Center (Takasu Proving Ground)

At the Automobile R&D Center (Takasu Proving Ground), engineers are taking full advantage of their natural surroundings and putting natural energy sources to work. Snow that falls in winter is preserved and its potential heat energy is used in heating and cooling. The snow is also used for testing snow blowers in the summer. Until now such tests had to be conducted overseas.



Extracting energy from snow at the Automobile R&D Center (Takasu Proving Ground)

# Honda Engineering Initiatives

Honda Engineering, which is responsible for the development of production technology, aims to design factories with the world's lowest environmental impact and to maximize the environmental responsibility with which its own facilities are operated.

Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>Per-unit CO<sub>2</sub> emissions: 6% reduction (baseline: FY2001)</li> <li>Total CO<sub>2</sub> emissions: reduce to 25,399 tons</li> <li>Waste generated: 2,041 tons</li> <li>Waste recycling rate: 98.5%</li> <li>External waste incineration: 72.1 tons</li> </ul>	<ul style="list-style-type: none"> <li>Per-unit CO<sub>2</sub> emissions: 8.2% reduction (baseline: FY2001)</li> <li>Total CO<sub>2</sub> emissions: reduced to 24,821 tons</li> <li>Waste generated: 2,051 tons</li> <li>Waste recycling rate: 98.3%</li> <li>External waste incineration: 34.1 tons</li> </ul>

## Environmental Impact Reduction

### Energy Savings

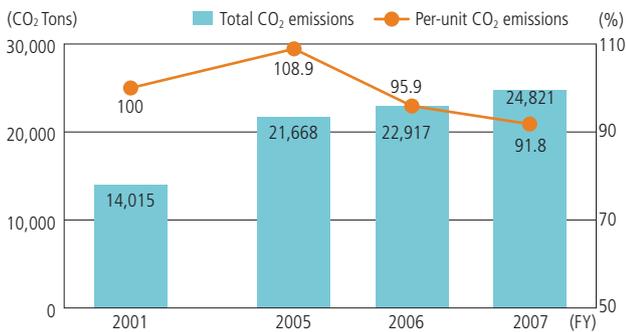
In FY2007 Honda Engineering exceeded its target of a 6.0% reduction in per-unit CO<sub>2</sub> emissions, achieving a reduction of 8.2%. It also exceeded its target for total CO<sub>2</sub> emissions, with a reduction to 24,821 CO<sub>2</sub> tons (baseline FY2001).

### Waste Elimination

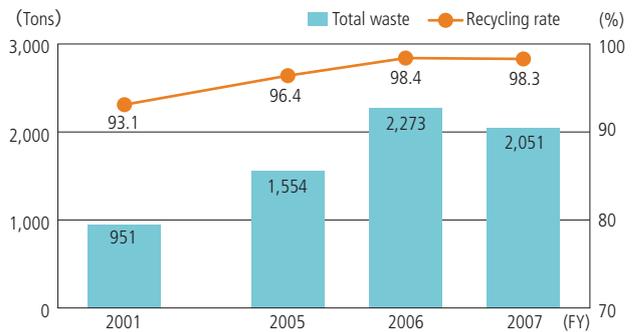
#### Waste (Byproducts) Elimination

In FY2007 Honda Engineering achieved a recycling rate of 98.3%, falling short of its target of 98.5%. It also fell short of its target for waste generation, generating a total of 2,051 tons. Going forward, the company will strengthen its waste separation procedures as part of the effort to achieve a higher recycling rate.

• Total and Per-unit CO<sub>2</sub> Emissions (FY2001=100%)



• Total and Per-unit Waste (FY2001=100%)



### Case Study

#### Using Water Wisely

Honda Engineering is working proactively to use water more efficiently. In its facility dedicated to handling process discharge (industrial wastewater), the company is applying biological treatments not only to the tap water it consumes, but also to the wastewater it discharges. In the development of production technology, a wide variety of substances are discharged into water, which must then be treated. The facility uses absorptive and ionizing agents to treat water. It also uses hybrid water treatment systems. The company is steadily expanding its recycling of used tap water.



# Honda Access Initiatives

Honda Access, which is responsible for the research, development and sales of genuine Honda parts, provides environmentally responsible parts and accessories, and maximizes the environmental responsibility with which it operates its own facilities—Niiza Headquarters, Tochigi R&D Center and Hidaka Factory.

Note: results for the Tochigi Factory of Honda Access Corporation are included in the report for the Honda R&D Automobile R&D Center (Tochigi); results reported here cover only the Niiza Headquarters and the Hidaka Factory of Honda Access Corporation.

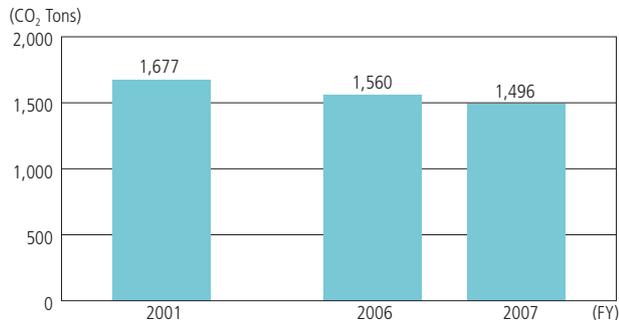
Annual Targets and Results	FY2007 Targets	FY2007 Results
	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions: reduce to 1,556 tons (7% reduction from FY2001)</li> <li>Packaging: 1.65 kg/unit (63% reduction from FY2001)</li> </ul>	<ul style="list-style-type: none"> <li>CO<sub>2</sub> emissions: reduced to 1,496 tons (10% reduction from FY2001)</li> <li>Packaging: 1.64 kg/unit (63% reduction from FY2001)</li> </ul>

## Environmental Impact Reduction

### Energy Savings

In FY2007 CO<sub>2</sub> emissions from Niiza Headquarters and Hidaka Factory totaled 1,496 tons (a reduction of 10% from FY2001), exceeding the target of 1,556 tons (reduction of 7% from FY2001). This can be attributed mainly to temperature control adjustments in conjunction with the implementation of Japan's "Cool Biz/Warm Biz" energy-saving initiatives (rules regarding acceptable business attire were adjusted to allow for less energy use from heating and cooling). Going forward, the company plans to strengthen energy savings measures and further reduce CO<sub>2</sub> emissions.

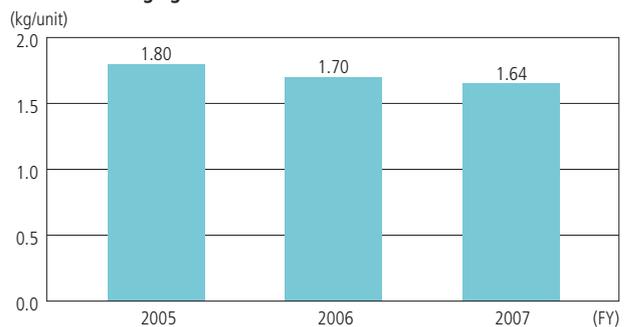
#### CO<sub>2</sub> Emissions



### Using Less Packaging

Honda Access is working to use less packaging material by designing simpler packaging, adjusting packaging specifications and converting to standardized containers. In FY2007 Honda Access reduced its use of packaging material to 1.64 kg per unit, a reduction of 63% from FY2001 levels.

#### Per-unit Packaging



#### Principal Packaging Reduction Measures

- Conversion from cardboard and laminates to plastic
- Elimination of excess packaging (such as inner packaging)
- Standardization of containers

### Case Studies

#### Converting to Returnable Transportation Containers

The Honda Access Hidaka Factory is converting from wooden pallets to returnable steel racks to reduce its incineration of waste wood and increase the recycling rate.



Before: wooden shipping pallets



After: returnable containers

#### Recycling Organic Waste

Leftover food from the cafeterias at Niiza Headquarters and Hidaka Factory is processed at a special facility, where it is composted and used as fertilizer.



Gathering of leftovers



Composting

# Environmental Impact at Group Companies (Japan)

Sharing a set of basic principles that inform all policies and actions, member companies of the Honda Group in Japan are working proactively to minimize the environmental impact of their operations and products, independently setting ambitious targets in respect to each aspect of environmental performance and working to attain them.

Here is a summary of the results of the environmental impact reduction measures implemented by Honda Group companies in Japan.

## Scope of Calculations

This summary of the environmental impact of the operations of Honda Group companies in Japan covers 54 companies as outlined below. (For details, see p.88.)

- Main Group companies: four companies: Honda Motor, Honda R&D, Honda Engineering, Honda Access
- Companies in the purchasing domain: 32
- Other affiliated companies: 18

Note 1: Water use calculations cover 44 Honda Group companies in Japan.

Note 2: PRTR calculations cover three main Honda Group companies in Japan.

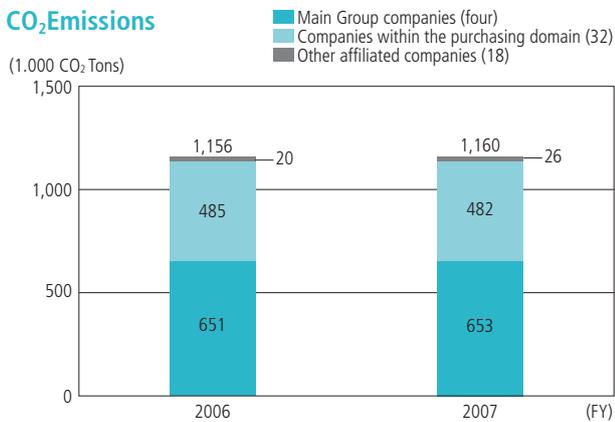
Note 3: Honda Technical College is included in the 'Other affiliated companies' category.

Note 4: In cases where operations falling within the 'Other affiliated companies' category are handled on the premises of main Group companies, those operations are calculated as main Group company calculations.

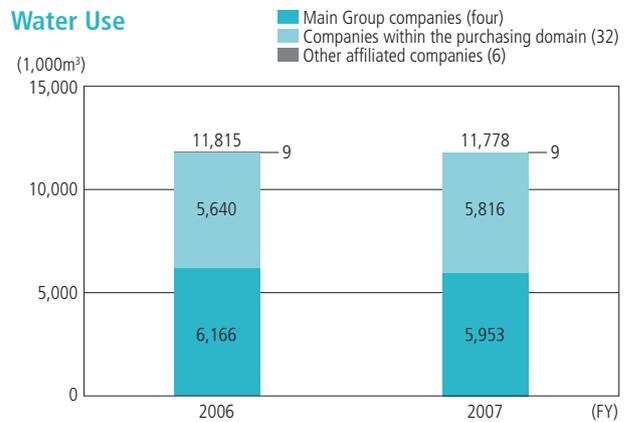
Note 5: In the future, coverage will be extended to include Honda Group companies in Japan that are not currently covered by these calculations

## Environmental Impact Reduction

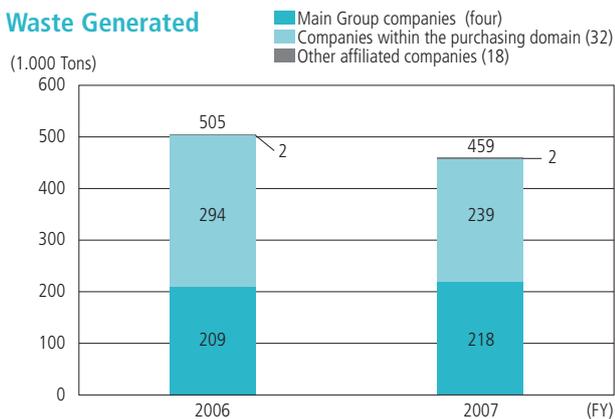
### CO<sub>2</sub> Emissions



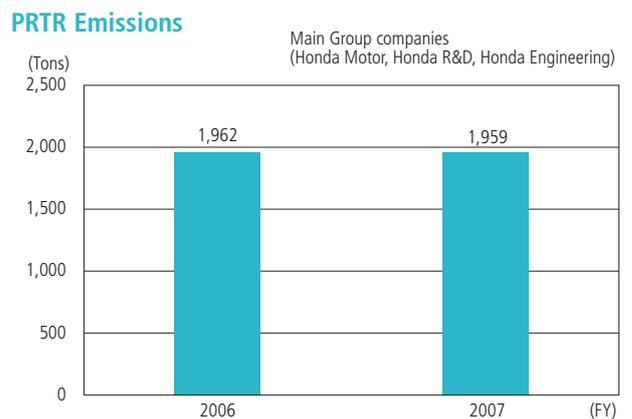
### Water Use



### Waste Generated



### PRTR Emissions



### Case Study

#### Honda Soltec: Starting Production and Sales of Solar Cells



Honda Soltec factory (Kumamoto, Japan)

The production facility of Honda Soltec, the new company scheduled to begin full-scale production and sales of solar cell panels in late 2007, was planned from the design stage to minimize environmental impact. Further, the production of modules is to comply with independent Honda standards that exceed those prescribed under Japan's Energy Use Law. We intend to ensure that all production in this facility is conducted in an environmentally responsible manner.

#### • Examples of Environmental Measures

##### Facility Construction

- Construction planned to minimize volume of soil removed
- Pile-driving done with a method that minimizes debris; recycled, environmentally responsible materials used in construction
- High level of insulation
- Waste generation during construction minimized

##### Module Production

- Implementation of advanced wastewater processing, a first for Honda
- Recycling of wastewater, reduction of water use
- No disposal of selenium or other substances of concern in landfill waste



# Community

**Through community initiatives,  
we're working to provide future  
generations with a cleaner world.**

Environmental conservation is a primary focus of Honda's community initiatives and is designed to enhance the coexistence of our operations with the communities that host them. Deepening ties with individuals and communities worldwide, we strive to anticipate social imperatives and foster well-being through all our activities. We are working proactively to fulfill our responsibilities as a corporate citizen, taking the lead in environmental conservation and working to provide future generations with a cleaner world.

Honda takes a global perspective on environmental conservation and the initiatives undertaken by each of its facilities to help ensure harmonious coexistence with host communities. Through our websites, a range of pamphlets, other publications and events, we are proactively sharing information about our community initiatives.

## Philanthropic Environmental Initiatives

### Watershed conservation in Japan

Honda is helping conserve precious watersheds for future generations. Current and retired Honda associates are hard at work on forest conservation projects in the areas around our facilities in Japan.

- Saitama Factory has been supporting the reforestation project conducted by the Creative Conservation Club, a volunteer group, to revitalize the Tone River headwaters and upper reaches of the Minakami-Naramata Dam through financial contributions and the volunteer work of associates.
- Kumamoto Factory is engaged in a project with Ozu Town, situated on the outer rim of the Mt. Aso volcano. Under the guidance of a local forestry group, it's working to restore three hectares of devastated forest by planting trees.
- Hamamatsu Factory has been collaborating with the "Forest of the Plenteers," an NPO, to conserve the forest in the headwaters of the Tenryu River in Mizukubo Town.
- In an area under the aegis of Honda headquarters, Honda has been collaborating with Kosuge Village and OISCA International to preserve the headwaters of the Tama River in Kosuge Village.
- Suzuka Factory joined forces with local NPO Mori no Kaze (Mountain Wind) in Kameyama City, thinning the forest\*<sup>2</sup> to safeguard its vitality.
- In the Tochigi area, Honda has been working to safeguard the national forests at the headwaters of the Watarase River in Ashio Town.



Planting tree in Ozu Town, Kumamoto Prefecture

### •Volunteer Forest Conservation Initiatives in FY2007

Facility	Events	Work	Participants
Honda HQ	2	Tree-planting	72
Saitama	3	Cutting underbrush Removing trees* <sup>1</sup> Tree-planting	114
Suzuka	2	Thinning forest* <sup>2</sup>	62
Hamamatsu	2	Tree-planting	41
Kumamoto	3	Tree-planting Cutting underbrush	109
Tochigi	2	Tree-planting Cutting underbrush	81
Total	14		479 (approx.)



\*1 Removing trees to promote sapling growth

\*2 Thinning out forest to give trees more light and promote growth

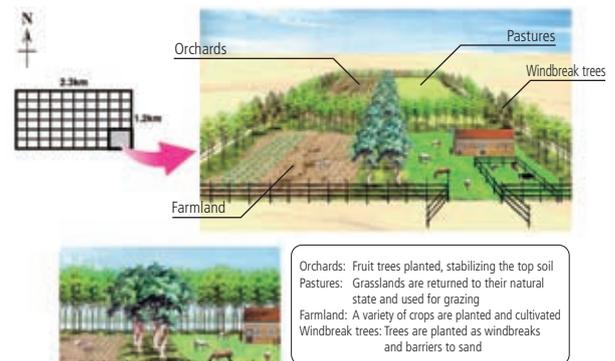
### The Joyful Forest Project

To confront rapid desertification in the Inner Mongolia Autonomous Region of the People's Republic of China, Honda is supporting the Desert Planting Volunteer Association in its Joyful Forest Project initiative, which aims to cultivate forests in the desert. Since joining the project in 2000, Honda has helped with operational planning, financial support and, through its volunteers, the actual planting. Progress continued in FY2007 with volunteer tours of service in May and September involving many current and retired Honda associates and their families. The greening of the desert is proceeding and the momentum of the initiative is growing, with Chinese officials visiting the site and local residents getting involved in cultivation projects of their own.



Tree-planting in the Inner Mongolia Autonomous Region of the People's Republic of China

### •The Joyful Forest Project: using reclaimed land



### Nature Wagon

Organized with the help of retired Honda associates, the Nature Wagon is an environmental education program on wheels—a van filled with natural objects from the ocean and forest. The Nature Wagon travels to elementary schools and community centers, bringing nature to the city.

In FY2007 the Nature Wagon visited 218 sites near Honda facilities (in Tokyo, Saitama, Suzuka, Hamamatsu, Kumamoto and Tochigi), bringing nature to about 14,000 children in city settings. Crafts using logs and other natural materials are introduced, and children are encouraged to explore and discover nature for themselves. Many teachers and students enjoy the experience so much they ask for another visit. The Nature Wagon program will continue to evolve, visiting mainly elementary schools in communities that host Honda facilities.

### •FY2007 Nature Wagon Events and Participants

Area	No. of Events	Participants (approx.)
Tokyo area	52	4,317
Suzuka	59	2,932
Hamamatsu	56	4,421
Kumamoto	19	778
Tochigi	32	1,535
Total	218	13,983



Nature Wagon at work

### Honda Beach Clean-Up Project

As one of our community initiatives, Honda developed the Beach Cleaner, which is cleaning up the seashore. A group of current and retired associates assembled a volunteer caravan to work with municipal authorities to put the Beach Cleaner to work. The towable Beach Cleaner has a simple structure based on the functions of a rake and a sieve. As it churns up the sand, buried litter is collected for highly efficient cleaning. Light and compact, it's easy on the ecosystem.

In FY2007 the Beach Cleaner Caravan visited 19 sites in Japan, and with the help of more than 539 current and retired associates some 3,000 bags of litter\* were collected. In FY2008, in response to public requests, plans are to begin lending the Beach Cleaner to municipalities where it can be operated in a safe and environmentally responsible manner.

\* 45-liter bags. Tires, driftwood not included.



Collecting litter at the beach

## Low-Emissions Vehicle Exhibitions

In FY2007 Honda exhibited low-emissions vehicles and participated in presentations at environmental events held primarily by the national and local governments in Japan. In FY2007 we were involved in 23 events.



Eco Car World 2006

## Supporting NGOs and Foundations

In FY2007 the Honda Philanthropy Office offered financial support or contributions in a total of nine cases.

## Environmental Awards

Award	Sponsor	Award Winner	Date
Tochigi Prefecture Superior Low-Emissions Corporation Award	Tochigi Prefecture	Tochigi Factory, Honda Motor	September 2006
Recycling Systems Award for oil filter recycling operations	Clean Japan Center	Mitsugi Industries Honda Motor	October 2006
2006 Resource Conservation Office Award at the 2006 Energy Conservation Awards	METI	Honda Motor	January 2007
Top Prize at the 10th Annual Environmental Report Awards for the Honda Environmental Annual Report 2006	Toyo Keizai Shimposha	Honda Motor	May 2007

## Environmental Communications

As an integral part of environmental management, we are engaged in a wide range of communication initiatives to enhance mutual understanding between the company and its stakeholders, including our customers and host communities. Moreover, we provide a range of environmental information to the public through various communications media, including Honda websites.

### Environmental Liaison

Liaison sections are established in the context of our environmental management systems to coordinate communication at the local level, addressing opinions and requests from local residents.

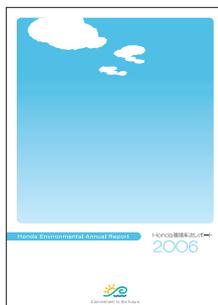
### Dissemination of Environmental Information through the Media and at Events

Honda discloses environmental information related to its operations primarily by the following means:

Brochures	<ul style="list-style-type: none"> <li>•Honda Environmental Annual Report</li> <li>•Publication of other pamphlets on environmental issues</li> </ul>
Website	<ul style="list-style-type: none"> <li>•Honda Worldwide website "http://world.honda.com/environment/"</li> <li>(Disclosure of a full range of environment-related information, including digital versions of the above brochures)</li> </ul>
Facilities	<ul style="list-style-type: none"> <li>•FAN FUN LAB "http://www.honda.co.jp/fanfunlab/" (Japanese only) (Environment-related exhibitions at the Twin Ring Motegi facility)</li> <li>•Hello Woods "http://www.honda.co.jp/hellowoods/" (Japanese only) (Visitors encountering nature through play)</li> </ul>
Events	<ul style="list-style-type: none"> <li>•Participation in low-emissions vehicle exhibitions and similar events (Participation in events organized by national and local governments and corporations)</li> <li>•Hosting environmental exhibitions</li> <li>•Launch events for new vehicles and/or new technologies</li> </ul>
Advertising	<ul style="list-style-type: none"> <li>•Corporate advertising</li> <li>•Product advertising/product catalogs</li> </ul>

### •The Honda Environmental Annual Report 2006 is a prize winner

The Honda Environmental Annual Report 2006 was the recipient of the top prize at the 10th Annual Environmental Report Awards sponsored by the Japanese news organization Toyo Keizai Shimposha. The awards were established in 1998 to promote the quality and expansion of environmental reporting by Toyo Keizai Shimposha and the Green Reporting Forum. The judges' decision was based on the clear presentation of targets and results for a wide range of operations, and the inclusion of details pertaining to Honda's global

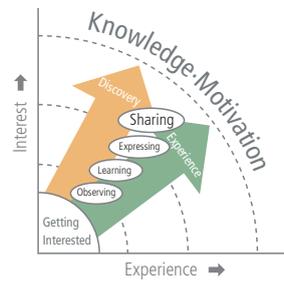


operations.

### Environmental Education

#### •Hello Woods

Honda manages a forest called Hello Woods in Motegi Town, Tochigi Prefecture, as a living museum where children can discover and experience nature. Activities here focus on providing children with the opportunity to play and learn in the forest. We have transformed the forest into a real-world classroom, providing children the freedom to play, to discover the wonders and wisdoms of nature, and learn what they can do to help sustain the planet. Hello Woods is a forest of broad-leaved deciduous trees in the Hakkouzan mountains, home to a diverse community of plants and wildlife. Playing in the forest, children become interested in nature, discovering fascinating things about our natural environment. It's an experience with lasting educational benefits. Staff, called cast members or forest storytellers, are always available to help the children learn as they play in the forest.



With the forest as their classroom, the children get interested in nature. Experience and discovery lead to learning, knowledge and the desire to learn more.



#### •Trend in Visitors (approximate)

FY2004	FY2005	FY2006	FY2007
49,000	65,000	77,000	86,000

#### •Fan Fun Lab

At the Fan Fun Lab in Twin Ring Motegi, school groups attend fun, educational workshops such as the New Energy Classroom. They're able to learn about the Honda FCX fuel cell vehicle, and much more. The facility is designed to provide an opportunity for young people to engage in hands-on learning about issues such as CO<sub>2</sub> emissions and global warming, as well as to think for themselves about new energy sources for the next generation.



New Energy Classroom Lecture Attendees	886 (FY2007)
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### Cooperating with Local Communities

All Honda facilities organize environmental exhibitions and clean-up activities, taking part in local environmental events as part of our corporate commitment to being responsible members of the communities where we live and work. In FY2007 we continued to engage in cooperative activities to achieve greater harmony with communities and the strengthening of the awareness and environmental responsibility of all Honda associates. Honda associates participated in 49 local environmental events, attended by approximately 200,000 people.

### Communicating about Local Environments

Honda promotes communication about local environments at its factories through risk communication, factory tours and roundtable discussions. Such steps deepen bonds of mutual understanding and trust between local residents and the factories regarding the factories' environmental measures, including the steps taken to reduce environmental risks to the community. In FY2007 each factory organized tours and roundtable discussions. We will continue to promote communication with local residents in communities near our facilities.

#### Case Studies

##### •Honda Trading Creates a Model for Recycling in the Honda Group

Honda Trading, a member company of the Honda Group, has taken steps to create new environmental business by getting involved in advanced recycling and other environmental programs. As part of this project, the company is setting up a model program within the Honda Group, collecting paper and wood products for recycling and leading the way in resource conservation.

The company harvested trees felled in March 2007, when the parking lot at the Quality Improvement Center in Tochigi was expanded, turning them into some 15 tons of paper stock. It's now working to facilitate the use of this paper in the production of publications issued by the Honda Group.

In April 2007 the company began collecting pamphlets made obsolete by the introduction of new vehicle models and other developments, providing some 35 tons of recycled paper. This Honda Annual Environmental Report 2007 is

printed on this paper.

Going forward, Honda Trading will endeavor to extract the maximum value from used paper, felled trees and other paper and wood wastes generated by Honda facilities, collecting and recycling them, forming a model of recycling within the organization.

##### •Renovating the Saitama Factory Entrance to Relieve Congestion

Due to increasing truck traffic near the pedestrian crossing by the entrance to Saitama Factory, vehicle and pedestrian traffic became congested. Honda worked with Sayama City in erecting an overhead pedestrian crossing to help everyone cross the road more safely. Honda plans to donate the overhead pedestrian crossing to Sayama City.

Further, the truck entrance was moved some 15 meters from the pedestrian crossing, enhancing traffic flow and pedestrian safety.



Overhead pedestrian crossing opened in May 2007

### Honda Green Conference

The Honda Green Conference is a major environmental event that has been held since 1999 to help further reduce the environmental impact of the entire Honda Group. At the conference, examples are presented of environmental conservation activities implemented at Honda facilities. From FY2006 onward, reports were presented at separate annual meetings on initiatives undertaken within predefined themes in each domain, with the Honda Green Conference held every third year. In FY2007, as in FY2006, presentations were given at conferences within each domain, and content of particular interest was published throughout the organization. Plans are

to open the Green Conference event, scheduled for FY2008, to all members of the Honda Group; and, in addition to presentations from each domain, to review the results of initiatives undertaken in the preceding three years and targets for the upcoming three years, strengthening the focus of the entire Group on environmental conservation.



Honda Green Conference presentation



# Global Environmental Information

Honda's mission is to manufacture products with the highest environmental performance at plants with the lowest possible environmental impact. Here we present information on the environmental performance of our automobiles by region, calculations of the environmental impact of our operations outside Japan, and environmental initiative case studies.

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Environmental Initiatives Outside Japan	.....	P.72

# Global Environmental Information

## Products

Honda strives to offer products featuring advanced technologies that exceed the targets for fuel efficiency and emissions set by governments around the world. Meeting the demand for transportation and superior environmental performance, Honda strives to provide truly sustainable mobility.

In the product domain, we're focusing primarily on the following three objectives:

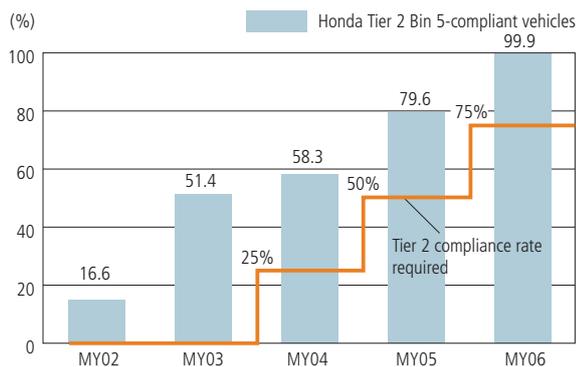
1. Reducing emissions and improving fuel efficiency
2. Developing hybrid vehicle technology
3. Promoting alternative fuel vehicles

## Reducing Environmental Impact

### •North America (U.S.)

In the United States, Honda has consistently led the automobile industry in Corporate Average Fuel Economy (CAFE) for cars and light trucks combined. Honda is also a leader in clean emissions: all 2007 Honda and Acura vehicles comply with stringent U.S. Environmental Protection Agency (EPA) Tier 2 Bin 5 emissions standards

### •Honda's early introduction of Tier 2 Bin 5-compliant vehicles



Note: To comply with Tier 2 Bin 5 regulations, NOx emissions must be 75% lower than mandated by the previous regulations



Civic Coupe (U.S.)

### •Europe

In Europe, starting with the remodeled Civic introduced in 2001, Honda has been continually improving emissions performance, achieving Euro IV compliance with each major vehicle. In addition, we have introduced hybrid vehicles, clean diesel engine vehicles and other models featuring superior fuel efficiency to help reduce product CO<sub>2</sub> emissions. We introduced an Accord equipped with Honda's independently developed 2.2-liter diesel engine in December 2003. New versions of the FR-V (Edix in Japan) and Civic went on sale in January 2006, featuring this new diesel technology. And in January 2007 we released a CR-V equipped with a diesel particulate filter (DPF) to achieve better fuel efficiency and cleaner emissions.



CR-V (Europe)

### •Asia/Oceania

In Thailand, since the start of local production and sale of the Jazz (called the Fit in some countries), all new vehicle releases, including the new Civic in 2005 and the Thai-made CR-V in 2006, have complied with Euro IV emissions standards before they took effect.



Civic (Thailand)

- **China**

All Honda vehicles marketed in China already comply with Euro IV-level emissions standards. The new Civic Hybrid was launched in 2007, adding to a lineup that includes the City (Fit Aria in Japan), a category leader in fuel efficiency, and the highly efficient new Civic.



City (China)

## Evolution of the Hybrid

In November 1999 Honda introduced the Insight, featuring the Honda Integrated Motor Assist (IMA) system, at the time the world's most fuel-efficient production gasoline vehicle. Then, starting with the North American market in December 2001, Honda introduced the Civic Hybrid, followed in December 2004 by the introduction of the Accord Hybrid featuring a V6 engine with Variable Cylinder Management. Next, in November 2005 the new Civic Hybrid was released, featuring the new Honda Hybrid System (3-Stage *i*-VTEC+IMA). Striving

to meet demand in key world markets, Honda is now developing a dedicated hybrid family car that will offer better fuel efficiency at an even more reasonable price, making hybrid technology accessible to more customers worldwide and further contributing to the reduction of CO<sub>2</sub> emissions.

## Offering More Alternative Fuel Vehicles

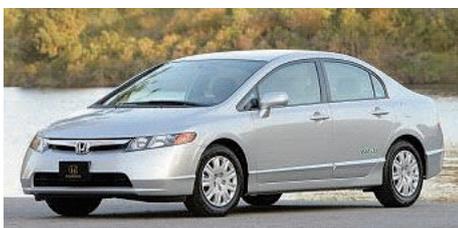
- **North America (U.S.)**

Honda has delivered some 23 FCX fuel cell vehicles to customers in the U.S. (plus 11 in Japan, for a total of 34 vehicles). In 2005 it leased a vehicle to an individual customer for the first time. In 2007 a 17-year-old movie actress, Ms. Q'orianka Kilcher, became the world's youngest FCX customer. Meanwhile, in Torrance, California, Honda continues trial operation of the Home Energy Station, which generates hydrogen from natural gas for use in fuel cell vehicles and supplies electricity and hot water to homes.



Q'orianka Kilcher and the Honda FCX

In 1998 Honda introduced the Civic GX natural gas vehicle, followed by a second-generation model in 2001. Introduced in 2006, the third-generation model Civic GX offers significantly better highway mileage. While further developing natural gas vehicles, Honda is also promoting broader application of the Phill™ natural gas home refueling appliance, facilitating commercial viability of this environmentally responsible alternative fuel.



Civic GX (U.S.)

- **South America (Brazil)**

In Brazil, where ethanol derived from sugar cane is an increasingly popular fuel, in the mid-1980s Honda began offering motorcycles and automobiles that run on a mixture of ethanol and gasoline. In November 2006 Honda introduced a flexible fuel E100 version of the Civic that can run on up to 100% ethanol.



Flexible Fuel Fit (Brazil)

- **Other Product Introductions**

Launched in Japan in March 2003, the Honda compact household cogeneration unit, distributed through utility companies, has reached cumulative sales of more than 45,000 units. In a joint venture in the U.S. with Climate Energy, Honda began sales in March 2007 of a compact household cogeneration system known as freewatt™. Initially, sales are being targeted at customers in the northeastern U.S., where the winters are relatively cold, before expanding to other cold weather areas of the U.S.

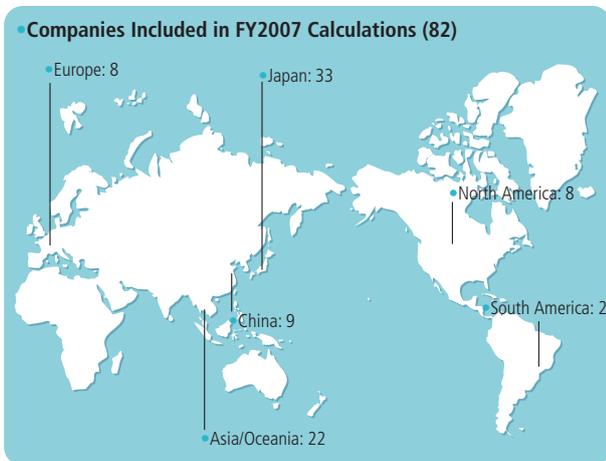


The Climate Energy freewatt™  
(the Honda cogeneration unit shown on the right)

# Global Environmental Information

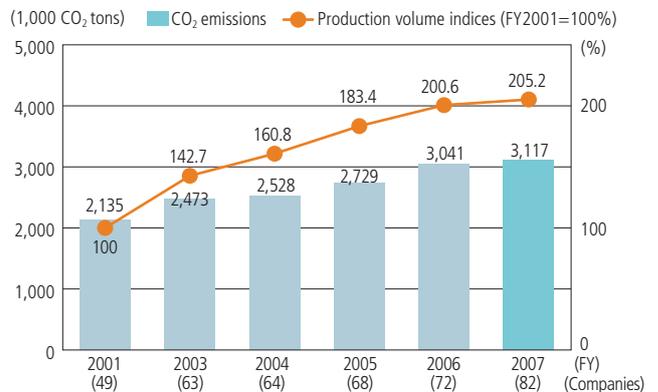
## Production

Honda is promoting its Green Factory initiative worldwide, developing production technology appropriate for a recycling-based society. We are also promoting energy conservation and waste reduction initiatives at our factories worldwide. We have calculated the CO<sub>2</sub> emissions, landfill waste generation and water usage of all Honda Group companies, including Honda Motor, involved in the manufacture of finished vehicles and all parts suppliers in FY2007. The results of this calculation of cumulative worldwide environmental impact are shown in the adjacent graphics. Encompassing 82 companies, including subsidiaries, Group companies and major affiliates, these calculations include virtually all production of finished vehicles. (For more details, please see p.88.)

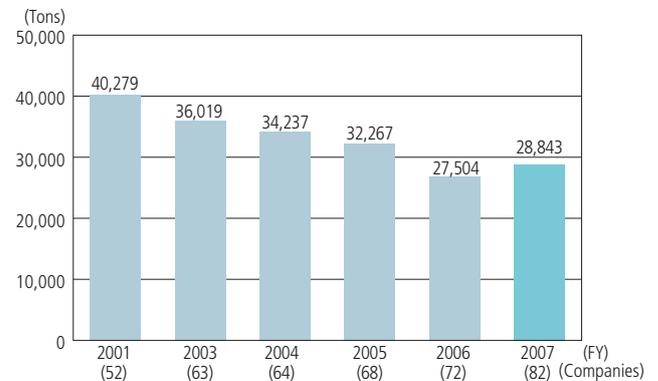


Note 1: Group companies are indicated by parentheses  
 Note 2: Calculations of CO<sub>2</sub> for countries outside of Japan are based on energy use expressed as electricity coefficient.  
 Calculations of electricity coefficient in Japan are based on the Factory Greenhouse Gas Guidelines published Japan's Ministry of the Environment (version 1.6).  
 Other calculations are based on the conversion formula presented on p.39.  
 Note 3: Landfill waste total includes waste processed by other companies.  
 Note 4: Production volume calculations are based on the automobile, motorcycle and power products unit production volumes of the facilities and a set formula.

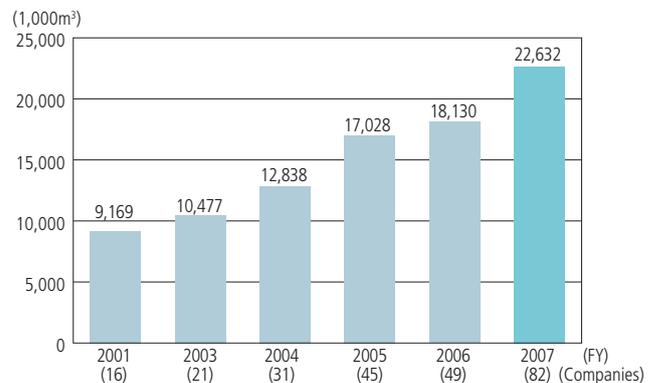
### CO<sub>2</sub> Emissions Volume



### Landfill Waste Volume



### Water Use Volume



### Energy Use, Waste and Water Use by Region (Production)

Issue	Region	Japan	North America	South America	Europe	Asia/Oceania	China
Total of Group companies included		33	8	2	8	22	9
Energy use	Electricity (MWh)	1,640,964	1,125,753	145,214	155,744	380,587	330,880
	Natural gas (GJ)	3,749,523	5,671,260	110,541	781,334	442,219	112,678
	Petroleum gas (GJ)	1,266,746	23,777	110,500	0	822,465	520,158
	Oil-based fuels, other (GJ)	1,256,349	322,822	1,211,853	704	2,429,919	228,843
Waste	External landfill disposal (tons)	399	8,267	1,007	2,094	2,456	14,619
	Recycled volume (tons)	199,500	173,150	32,936	32,249	131,569	64,849
Water use	Tap water (1,000 m <sup>3</sup> )	5,762	1,919	1	755	2,702	2,955
	Groundwater (1,000 m <sup>3</sup> )	4,654	1,908	1,069	92	269	304
	Rainwater (1,000 m <sup>3</sup> )	92	147	0	0.1	5	0

# Environmental Initiatives Outside of Japan

## North America

### Recycling catalytic converters (U.S.)

In the U.S., Honda recycles catalytic converters. Catalytic converters, which contain a ceramic honeycomb canister coated with platinum, palladium, rhodium and other precious metals, are collected from end-of-life vehicles and service centers at Honda dealerships and sent to a recycling facility. The ceramic portion is recycled and the precious metals are recovered for use in manufacturing new catalytic converters. Every part of the converter is reused or recycled, reducing landfill waste to zero.



Catalytic converter recovered for recycling

### More returnable packaging for motorcycles and other products (U.S.)

Honda is moving forward with implementation of a returnable packaging system that allows containers used in shipping assembled motorcycles and other products in the U.S. to be returned and reused. Honda began converting to returnable packaging for motorcycles, All Terrain Vehicles (ATVs) and personal watercraft in 2002. By 2006 the changeover was complete, with 100% implementation for shipments throughout the U.S., including Alaska and Hawaii. Previously Honda had shipped its assembled motorcycles in wooden crates, but switching to all-steel containers and two-way containers that can be sent back and forth between factory and dealer resulted in a 7,983-ton reduction in the volume of packaging materials used.

#### •Introduction of returnable packaging

		Prior to 2004	2005	2006
US domestic shipments	Wooden crates	50%		
	steel containers	40%	50%	
	Returnable steel containers	10%	50%	100%
Export shipments	Wooden crates	50%		
	Steel containers	50%	100%	

### Transporting automobiles by rail (North America)

Honda transports Honda and Acura vehicles in North America primarily by rail. Rail transport requires only 1/3 the energy expenditure of trucking, resulting in reduced CO<sub>2</sub> emissions and increased efficiency, as many more vehicles can be transported at once. Currently, approximately 80% of Honda automotive products are transported via rail within the U.S.



Assembled vehicles being loaded onto rail cars.

### Energy conservation initiatives (North America)

One good way to reduce energy consumption is to cut back on wasteful practices. Honda is working to eliminate waste and use energy efficiently at all of its North American production facilities.

Associates at the Honda of Canada Mfg. automobile factory make it a habit to shut down all equipment not engaged in production. Each section also takes care to shut down all equipment and turn off lights during work breaks. Reducing the pressure in pneumatic equipment during work breaks allows the 1,000 horsepower compressor to be shut down.

At the Honda of South Carolina Mfg. factory, guidelines have been created to implement energy-conservation measures that have resulted in a 3% reduction in electricity.

At Honda Manufacturing of Alabama, a thorough analysis of the painting section on the auto plant's number two production line was performed to find ways to save energy and cut costs without inhibiting production. Measures such as turning off lights when they are not needed, as well as lowering oven temperatures and turning off equipment between production runs, resulted in savings last year of approximately \$750,000. This was achieved in conjunction with a production increase of approximately 10%.

## Europe

### Honda Turkey complies with EMAS requirement (Turkey)

Although Turkey is not a member of the European Union, Honda Turkey took the initiative of complying with Eco-Management & Audit Scheme (EMAS) criteria as a way to enhance environmental awareness. The company also published an environmental report on all of its environmental initiatives, including energy management, waste reduction and compliance with emissions regulations.

Honda Turkey qualified for EMAS certification as the result of an audit performed by AIB Vincotte International February 18–22, 2007.

Note: Although an official audit was completed, Honda Turkey's EMAS certification was not officially registered, as EMAS is an organ of the European Union, whose jurisdiction extends only to EU member states.



Confirmation of EMAS compliance

### Returnable containers introduced to conserve resources (Belgium)

At Honda Belgium, returnable containers have been introduced to reduce packaging use and enhance recycling.

Previously, bumpers manufactured in Japan were packed in cardboard boxes and stacked on wooden pallets for shipping; but the cost of using cardboard and wood as disposable packing materials is high. By converting from cardboard boxes (30 bumpers per box) to returnable steel containers (45 bumpers per box), Honda Belgium has been able to reduce the cardboard used inside the returnable containers to two layers, lowering total cardboard consumption to one-third that of the previous system.

#### • Previous packaging



#### • Current packaging



### Introducing reusable packaging (Italy)

Honda Italia Industriale of Italy has been working in close cooperation with Honda Europe Power Equipment of France to reduce packaging waste by introducing reusable packaging materials for shipments between the two companies.

Until October 2006, engine parts from Honda Italia Industriale were packed in bulky cardboard boxes mounted on wooden pallets. The French affiliate uses these parts to make power products. Now, these parts are received in sturdy steel and plastic packaging. This packaging is used to ship assembled power products to the Italian affiliate, where it is used again for the next parts shipment to France.

This method has resulted in a 23% overall reduction in factory waste at Honda Europe Power Equipment, and reduced costs for Honda Italia Industriale. It has also eliminated approximately 75 tons of cardboard waste and 30 tons of wood waste annually.

#### • Previous packaging



#### • Current packaging



### Reducing water consumption on the bumper paint line (Belgium)

Honda Belgium vaporizes water obtained from reverse osmosis equipment used for humidification at its paint plant to compensate for moisture loss inside the cabin of automobiles being painted.

Water is collected in the reservoir of the reverse osmosis device and automatically pumped to the spray booth water tank, as required. Use of this self-regulating system allows the plant to reduce its consumption of tap water.

## Asia/Oceania, China

### Start of operations at two new Green Factories (China)

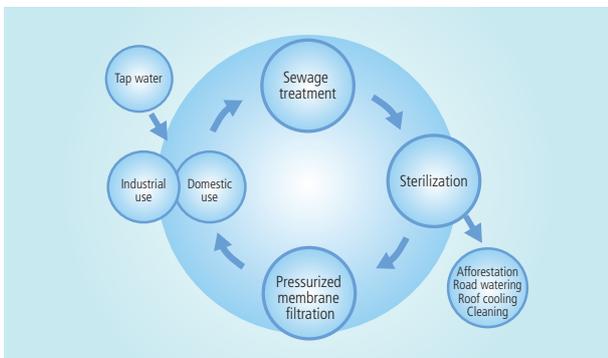
The new Dongfeng Honda factory in Wuhan and the second Guangzhou Honda factory in Zengcheng started operations in February and September 2006, respectively.

Both factories utilize advanced production systems that integrate expertise derived from existing factories and concepts from the Green Factory initiative, which prioritizes both environmental responsibility and good ergonomics in the workplace. The new production lines and their innovative layouts set quality and efficiency standards for Honda plants around the world.

At the paint plants, water-based paints are used for the undercoat and intermediate coat, which are efficiently applied using robotic technologies to reduce VOC emissions to 20 g/m<sup>2</sup>.

Further, increases in production efficiency have reduced power, gas and water consumption. The workplace environment has also improved, with a new, energy-efficient conveyor system that significantly reduces noise, and the broad-ranging introduction of devices to spare associates from physically burdensome labor.

The second Guangzhou Honda factory features a complete water recycling system—a first for the auto industry worldwide. This system completely eliminates wastewater discharge and saves 170,000 tons of water per year.



Complete water recycling system



Water-based painting

### Assessing the environmental impact of materials used in products (Pakistan)

In 2006 Atlas Honda opened Pakistan's first motorcycle plant capable of synchronous welding, painting, chassis assembly and engine assembly. Associates are taking up the challenge of fully understanding the impact of auto and motorcycle manufacturing on the global environment and effectively implementing Honda environmental conservation initiatives. One key measure undertaken at the new factory was switching from diesel generators (two units) to electricity from the grid in manufacturing the shock absorber cases used in motorcycle suspensions. This has increased energy efficiency and reduced CO<sub>2</sub> emissions. Also, in order to assess the environmental impact of the products manufactured at the motorcycle plant, efforts are being made to measure the levels of substances of concern in the CD70, which is manufactured at the plant.



Atlas Honda associates measuring substances of concern in their products.



# **Supplementary Information**

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# Product Environmental Performance Information

Note: Information is provided only for major, high-volume-selling models that were either newly released or fully remodeled in FY2007.

 <http://world.honda.com/environment/2007report>

## Automobiles

### Environmental Performance of New or Remodeled Automobiles Sold in Japan in FY2007 (Major Models)

Model Name		Civic	Stream	Partner	CR-V	Edix	ElySION Prestige	Crossroad	Civic
Type covered		2.0GL	X	EL	ZX	24S	SG	20X	TYPE R
Release date		April 7, 2006	July 14, 2006	July 25, 2006	Oct. 13, 2006	Nov. 30, 2006	Dec. 21, 2006	Feb. 23, 2007	Mar. 30, 2007
Type details		DBA-FD2	DBA-RN6	DBE-GJ4	DBA-RE4	DBA-BE8	DBA-RR5	DBA-RT3	ABA-FD2
Engine (motor) type		K20A	R18A	L15A	K24A	K24A	J35A	R20A	K20A
Engine displacement (cm <sup>3</sup> )		1,998	1,799	1,496	2,354	2,354	3,471	1,997	1,998
Drive train	Type of drive train <sup>*1</sup>	FF	FF	4WD	4WD	FF	FF	FF	FF
	Transmission	Electronically controlled 5-speed automatic	6-speed manual						
Vehicle weight (kg)		1,280–1,300	1,350–1,380	1,220	1,530–1,580	1,480; 1,490	1,920–1,980	1,430–1,460	1,250
Emissions	Compliance with 2005 Emissions Standards <sup>*2</sup>	○	○	○	○	○	○	○	○
	MLIT Low-Emissions Vehicle certification level <sup>*3</sup>	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	★★★★	—
10-15+11 mode	Values reported to MLIT (g/km)	CO	0.40	0.40	0.50	0.40	0.50	0.40	0.60
		NMHC	0.013	0.013	0.013	0.013	0.013	0.013	0.04
		NOx	0.013	0.013	0.013	0.013	0.013	0.013	0.04
Fuel economy	10-15 mode (km/L)	13.6	14.8	15.4	11.6	12.0	8.5	13.8	11.4
	CO2 emissions (g/km)	170.7	156.9	150.8	200.1	193.5	273.1	168.2	203.7
	Compliance with FY2011 Fuel Economy Standards	○	○	○	○	—	—	○	—
	Attains FY2011 Fuel Economy Standards + 5%	—	○	○	○	—	—	○	—
	Attains FY2011 Fuel Economy Standards + 10%	—	○	○	○	—	—	—	—
	Attains FY2011 Fuel Economy Standards + 20%	—	—	—	—	—	—	—	—
Equipped with a fuel economy meter <sup>*4</sup>		—	Standard equipment	Standard equipment	Standard equipment	Standard equipment	—	Standard equipment	—
Compliance with Green Purchasing Law	8 prefectures/cities, including Tokyo	○	○	○	○	○	○	○	—
	7 prefectures/cities in the Kyoto-Osaka-Kobe area	○	○	○	○	○	○	○	—
Compliance with Green Purchasing Law		○	○	○	○	—	—	○	—
Eligibility for Green Tax rebate		—	○	○	○	—	—	—	—
Noise level (MLIT measurement)	Noise near exhaust outlet (dB (A)) / Engine rpm	83/4,500	85/4,725	82/4,125	83/4,350	87/4,275	81/4,650	85/4,650	93/5,000
	Acceleration noise (dB (A))	74	73	75	74	75	75	74	75
	Constant speed passing noise (dB (A)), (km/h)	69 (50)	70 (50)	69 (50)	70 (50)	70 (50)	70 (50)	70 (50)	71 (50)
Compliance with JAMA interior VOC standards (within MHLW guidelines for interior VOC density)		○	○	○	○	○	○	○	○
Air conditioner	Refrigerant HFC 134a consumption (g)	500	500	500	490	500	750	500	—
Reduction in SOCs	Lead <sup>*5</sup> (meets JAMA target of 10% of 1996 levels)	○	○	○	○	○	○	○	○
	Mercury <sup>*6</sup> (meets JAMA target for elimination after January 2005)	○	○	○	○	○	○	○	○
	Hexavalent chromium (meets JAMA target for elimination after January 2008)	Minute quantities used	○	Minute quantities used					
	Cadmium (meets JAMA target for elimination after January 2007)	○	○	○	○	○	○	○	○
Recycling	Recyclability <sup>*7</sup>	Over 90% of entire vehicle	Over 90% of entire vehicle						

\*1 FF=Front engine, front-wheel drive; 4WD=4-wheel drive

\*2 Complies with long-term CO2 emission standards for passenger and light-duty vehicles

\*3 ★★: Low-emissions vehicle with emissions 50% lower than 2005 standards

★★★★: Low-emissions vehicle with emissions 75% lower than 2005 standards

\*4 Eco Drive support devices, including real-time fuel economy meters, average fuel economy meters and eco lamps

\*5 Lead batteries are excluded from the reduction target, as a separate recovery and recycling channel has been established

\*6 Mercury used in minute quantities required to ensure traffic safety (in parts such as LCDs for navigation systems, combination meters, high-intensity-discharge headlights and interior fluorescent lights) is excluded from the reduction target

\*7 Based on 1998 JAMA guidelines for defining and calculating new-vehicle recyclability

Note: Fuel economy values obtained under predefined testing conditions. Fuel economy may vary under actual driving conditions (depending on weather, road surface, manner of driving, vehicle maintenance, etc).

### Automobile Exhaust Emissions Standards in Japan (g/km)

Item	Passenger and light-duty vehicles	
	2005 Emissions Standards	
CO (carbon monoxide)	1.15	
NMHC (non-methane hydrocarbon)	0.05	
NOx (nitrogen oxide)	0.05	

### Japan's Ministry of Land, Infrastructure and Transport Low-Emissions Vehicle Certification Standards (g/km)

Item	Passenger and light-duty vehicles	
	Emissions 50% lower than 2005 standards (★★★)	Emissions 75% lower than 2005 standards (★★★★)
CO (carbon monoxide)	1.15	1.15
NMHC (non-methane hydrocarbon)	0.025	0.013
NOx (nitrogen oxide)	0.025	0.013

### FY2011 Fuel Economy Standards (gasoline-powered passenger vehicles) in Japan

Vehicle weight / taxable weight (kg)	< 702	703–827	828–1,015	1,016–1,265	1,266–1,515	1,516–1,765	1,766–2,015	2,016–2,265	2,266+
FY2011 Fuel Economy Standards	21.2	18.8	17.9	16.0	13.0	10.5	8.9	7.8	6.4
FY2011 Fuel Economy Standard +5%	22.3	19.7	18.8	16.8	13.7	11.0	9.3	8.2	6.7
FY2011 Fuel Economy Standard +10%	23.3	20.7	19.7	17.6	14.3	11.6	9.8	8.6	7.0
FY2011 Fuel Economy Standard +20%	25.4	22.6	21.5	19.2	15.6	12.6	10.7	9.4	7.7

\*Fuel economy for vehicles tested in 10-15 mode (km/L)

### Vehicle Noise Regulation in Japan

Item	Passenger vehicles	Mini truck / light truck
Noise near exhaust outlet standard value dB (A)	96	97
Acceleration noise standard value dB (A)	76	76
Constant speed passing noise standard value dB (A)	72	74

## Motorcycles

No newly released or fully remodeled motorcycles were sold in Japan in FY2007

## Power Products

Environmental Performance of Newly Released or Remodeled Power Products Sold in Japan in FY2007 (Major Models)

Category		Marine outboards		Household cogeneration units	Generators	Tillers	
Release date		Nov. 1, 2006		Sep. 25, 2006	Dec. 1, 2006	Jan. 30, 2007	
Model name		BF90D	BF75D	Compact Household Cogeneration Unit	EU55is	Punch-X F402	
Type		BBCJ	BBAJ	UCEJ	EASJ	FAPJ	
						J	JA
Engine type		BEB CJ	BEB AJ	GE160V Engine type: GEACM	GX390K1 Engine type: GCAA	GX120K1 Engine type: GC01	
		4-stroke in-line 4-cylinder vertical		4-stroke water-cooled single-cylinder OHV	Air-cooled 4-stroke single-cylinder OHV	Air-cooled 4-stroke single-cylinder OHV	
Engine displacement		1,496	1,496	163	389	118	118
Weight (kg)		166	165	82	128.5	47	45
Continuous operation (hr)		—	—	—	10.3 <sup>3</sup> /4.3	Approx. 2	Approx. 2
Fuel economy	Fuel consumption rate (g/kWh)	350	340	0.42 m <sup>3</sup> /h (natural gas 12A) 0.39 m <sup>3</sup> /h (natural gas 13A) 0.17 m <sup>3</sup> /h (LPG (propane))	—	—	—
Emissions	Engine unit	Compliance with EPA Phase II emissions standards for power products <sup>*1</sup>	—	—	—	○	○
		Compliance with CARB Tier III emissions standards for power products <sup>*1</sup>	—	—	—	○	○
		Compliance with Japan Land Engine Manufacturers Association voluntary standards	—	—	—	○	○
Noise	EU guaranteed sound power level LWA (dB (A))	—	—	—	89	—	—
	Noise at the ear LPA (dB (A))	85/80 <sup>*2</sup>	82/75 <sup>*2</sup>	—	75	83	

\*1 Similar models have obtained emissions certification in the United States, but products marketed in Japan are not guaranteed to meet those standards.

\*2 Tiller value / Remote control value: The tiller value represents the noise level near the handle of the outboard motor; the remote control value represents the noise level inside the cabin when the marine outboard is being operated remotely.

\*3 When eco throttle is in operation

### Power Products Emissions Standards

Item		Handheld, over 50cc	Stationary, 225–1000cc
Applicable models		F402 (GX120)	EU55is (GX390)
EPA Phase II regulations (g/kWh)	CO (including aging deterioration)	603	610
	HC+NOx (including aging deterioration)	72	12.1

Item		80–225cc (horizontal type)	Over 225cc
Applicable models		F402 (GX120)	EU55is (GX390)
CARB Tier III regulations (g/kWh)	CO (including aging deterioration)	549	410
	HC+NOx (including aging deterioration)	10.0	9

Item		Engines for portable equipment	Engines for non-portable equipment
		Over 50cc	Over 225cc
Applicable models		F402 (GX120)	EU55is (GX390)
Voluntary Standards of the Japan Land Engine Manufacturers Association (g/kWh)	2003 primary standards (new-engine regulations)	CO	519
		HC+NOx	13.4
	2008 secondary standards (in-use engine regulations) <sup>*1</sup>	CO (including aging deterioration)	610
		HC+NOx (including aging deterioration)	12.1

\*1 Standards must be complied with throughout a defined operating period

\*2 To take effect starting in 2011

# Japan Facilities Information

## Air Quality, Water Quality, and PRTR

### Honda Motor Co., Ltd.

**Saitama Factory** •Address: 1-10-1 Shin-Sayama, Sayama City, Saitama Prefecture, Japan •Number of associates: 5,251 (as of March 31, 2007)

•Established: 1964

•Major products: Legend, Odyssey, Accord, etc.

•Water discharge points: sewage system (domestic and industrial wastewater); Iruma River (indirect cooling water)

•ISO14001 acquired: January 1998

#### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5-9	5-9	7.0 (6.6)	6.8
Biochemical oxygen demand (BOD)	mg/L	600	360	320 (180)	222
Suspended solids (SS)	mg/L	600	360	50 (16)	26.1
Oil content	mg/L	30	18	9.7 (< 2.0)	4.7
Phenols	mg/L	5	3	< 0.1	< 0.1
Copper and its compounds	mg/L	3	2	< 0.1	< 0.1
Zinc and its compounds	mg/L	2	2	0.6 (0.2)	0.3
Soluble iron and its compounds	mg/L	10	6	< 0.5	< 0.5
Soluble manganese and its compounds	mg/L	10	6	2.0 (1.2)	1.7
Total chromium	mg/L	2	1.2	< 0.05	< 0.05
Fluorine content	mg/L	8	5	3.1 (1.9)	2.4
Colon bacillus colony count	Parts/cm <sup>3</sup>	Excluded because release is to sewage system			
Nitrogen	mg/L	240	150	23 (14)	20.8
Phosphorous	mg/L	32	20	15 (6.7)	11.7
Cadmium and its compounds	mg/L	0.1	0.06	< 0.1	< 0.01
Cyanides	mg/L	1	0.6	< 0.1	< 0.1
Lead and its compounds	mg/L	0.1	0.06	0.009 (< 0.1)	< 0.003
Hexavalent chromium compounds	mg/L	0.5	0.3	< 0.05	< 0.05

#### Supplementary Explanation of Terms

Tables are compiled based on measurements taken between April 2006 and March 2007.

- Water Quality**
  - Items listed are those substances for which measurement is required by the Water Pollution Control Law and local government by-laws.
  - Values listed are calculated based on monthly measurements. Substances not listed here are also measured on an ongoing basis to ensure that values are in compliance with regulatory standards.

- Air Quality**
  - Items listed are those for which measurement is required by the Air Pollution Control Law and local government by-laws.
  - Equipment measured includes boilers, drying ovens, incinerators, etc.

#### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.05	0.025	0.002	0.002
		0.10	0.05	< 0.003	< 0.003
		0.20	0.10	0.004 (< 0.002)	< 0.002
Nitrogen oxides	ppm	0.25	0.125	0.002 (0.002)	0.002
		70	10	< 10	< 10
		150	75	62 (27)	48.5
		180	90	76 (27)	60.2
Hydrogen chloride	mg/Nm <sup>3</sup>	230	115	110 (38)	60.2
		250	125	120 (120)	120
Sulphur oxides	Nm <sup>3</sup> /h	500	200	95 (5.1)	49.6
Dioxins	ng-TEQ/Nm <sup>3</sup>	7.01	3.15	0.561 (0.15)	0.36
		2.5	0.1	0.03	0.03

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Soluble zinc compounds	30,779	0	0	308	4,925	0	0	25,546
Bis phenol A epoxy resins	56,067	0	0	0	2,510	0	489	53,068
Ethyl benzene	438,831	187,087	0	0	0	165,592	24,412	61,740
Ethylene glycol	1,861,200	0	0	0	0	0	0	1,861,200
Xylene	1,028,194	295,352	0	0	0	388,658	62,071	282,113
1,3,5-trimethyl benzene	37,148	32,725	0	0	0	0	4,423	0
Toluene	1,213,608	553,949	0	0	0	23,386	115,662	520,611
Nickel compounds	5,490	0	0	1,263	933	0	0	3,294
Bis (2-ethylhexyl) phthalic acid	2,415	0	0	0	136	0	23	2,256
Hydrogen fluoride and its water-soluble salts	1,593	0	0	159	1,430	4	0	0
Benzene	26,730	38	0	0	0	0	1,671	25,021
Polyoxyethylene alkyl ether	1,325	0	0	133	954	0	238	0
Manganese and its compounds	14,744	0	0	737	5,898	0	0	8,109
Total	4,718,124	1,069,151	0	2,600	16,786	577,640	208,989	2,842,958
Dioxins (unit: mg-TEQ)	—	0.32	0	0	167.38	0	0	0

Note: Water and air quality items listed are those for which measurement is required by law.

## Tochigi Factory

- Address: 19 Matsuyama Cho, Mohka City, Tochigi Prefecture
- Employment: 1,302 associates (as of March 2007)
- Established: 1970
- Water discharge point: Kokai River via Gogyo River
- Major Products: Engine parts, suspension parts, etc.
- ISO 14001 acquired: September 1997

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	8.3 (7.3)	7.7
Biochemical oxygen demand (BOD)	mg/L	25	12.5	10 (< 0.5)	3.2
Suspended solids (SS)	mg/L	50	25	4.8 (< 0.1)	1.6
Oil content	mg/L	5	2.5	1.8 (< 0.5)	0.6
Phenols	mg/L	1	0.5	< 0.1 (< 0.05)	< 0.05
Copper and its compounds	mg/L	3	1.5	0.7 (< 0.05)	0.1
Zinc and its compounds	mg/L	2	1	0.25 (< 0.1)	0.10
Soluble iron and its compounds	mg/L	3	1.5	0.9 (0.06)	0.38
Soluble manganese and its compounds	mg/L	3	1.5	0.3 (< 0.02)	0.11
Total chromium	mg/L	2	1	< 0.1 (< 0.02)	< 0.02
Fluorine content	mg/L	8	4	< 0.2 (< 0.2)	< 0.2
Colon bacillus colony count	Parts/cm <sup>3</sup>	3000	1500	280 (0)	15
Nitrogen	mg/L	120	60	15 (6.3)	12
Phosphorous	mg/L	16	8	0.64 (< 0.1)	0.18
Cadmium and its compounds	mg/L	0.1	0.05	< 0.01 (< 0.005)	< 0.005
Cyanides	mg/L	1	0.5	< 0.1 (< 0.05)	< 0.05
Lead and its compounds	mg/L	0.2	0.1	< 0.1 (< 0.005)	< 0.005
Hexavalent chromium compounds	mg/L	0.1	0.05	< 0.05 (< 0.02)	< 0.02

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.1	0.05	< 0.006 (< 0.001)	< 0.003
Nitrogen oxides	ppm	180	90	38 (16)	32.1
Sulphur oxides	K value	8	4	< 0.046 (< 0.003)	< 0.009

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Soluble zinc compounds	8,384	0	18	0	8,366	0	0	0
Molybdenum and its compounds	1,005	0	0	0	1,005	0	0	0
Total	9,389	0	18	0	9,371	0	0	0

(Unit: kg)

## Hamamatsu Factory

- Address: 1-13-1 Aoi Higashi, Naka-ku, Hamamatsu City, Shizuoka Prefecture
- Employment: 3,369 associates (including those working at the Hosoe Plant, as of March 2007)
- Established: 1954
- Water discharge point: Sewage system (industrial and non-industrial wastewater), Isaji River, Danzu River (rainwater only)
- Major Products: Motorcycles, automatic transmissions for automobiles, etc.
- ISO 14001 acquired: March 1998

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.0-9.0	5.0-9.0	7.7 (7.2)	7.5
Biochemical oxygen demand (BOD)	mg/L	600	300	109 (28.8)	67.0
Chemical oxygen demand	mg/L	Excluded because release is to sewage system			
Suspended solids (SS)	mg/L	600	300	188 (69.6)	116
Oil content	mg/L	35	17.5	13 (< 2.5)	1.7
Phenols	mg/L	5	2.5	< 0.2	< 0.2
Copper and its compounds	mg/L	3	1.5	< 0.1	< 0.1
Zinc and its compounds	mg/L	2	1	0.5 (0.19)	0.33
Soluble iron and its compounds	mg/L	10	5	0.7 (0.3)	0.50
Soluble manganese and its compounds	mg/L	10	5	0.2 (< 0.1)	0.1
Total chromium	mg/L	2	1	< 0.05	< 0.05
Fluorine content	mg/L	8	4	1.8 (0.1)	1
Colon bacillus colony count	Parts/cm <sup>3</sup>	Excluded because release is to sewage system			
Nitrogen	mg/L	240	120	19.4 (12.3)	15.9
Phosphorous	mg/L	32	16	7.06 (1.58)	4.32
Cadmium and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Cyanides	mg/L	1	0.5	< 0.01	< 0.01
Lead and its compounds	mg/L	0.1	0.05	0.03 (< 0.01)	0.01
Hexavalent chromium compounds	mg/L	0.5	0.25	< 0.05	< 0.05

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.20	0.1	< 0.02	< 0.02
		0.25	0.13	< 0.02	< 0.02
		0.30	0.15	< 0.02	< 0.02
Nitrogen oxides	ppm	150	75	74 (24)	49.5
		180	90	62 (10)	32.6
		250	125	100 (89)	94.5
Hydrogen chloride	mg/Nm <sup>3</sup>	700	350	< 93 (< 87)	< 90
		80	40	1.42 (< 0.71)	< 1.1
Sulphur oxides	Nm <sup>3</sup> /h	2.22	1.11	< 0.07 (< 0.06)	< 0.065
Dioxins	ng-TEQ/Nm <sup>3</sup>	5	2.5	1.6	1.6
		10	5	0.038 (0.013)	0.0255

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	44,393	3,839	0	0	145	1,385	30	38,994
Ethylene glycol	227,576	0	0	0	0	0	0	227,576
Xylene	241,029	51,161	0	0	269	1,036	2,233	186,330
1,3,5-trimethyl benzene	2,096	1,973	0	0	81	40	2	0
Toluene	439,864	18,270	0	0	0	628	582	420,384
Benzene	11,821	47	0	0	0	60	0	11,714
Total	966,779	75,290	0	0	495	3,149	2,847	884,998
Dioxins (unit: mg-TEQ)	—	19.90	0	0.42	94.60	0	0	0

(Unit: kg)

Note: Water and air quality items listed are those for which measurement is required by law.

## Supplementary Information

### Hamamatsu Factory Hosoe Plant

- Address: 5794-1 Kiga, Hosoe Cho, Kita-ku Hamamatsu City
- Established: 2001
- Major Products: Marine outboards

- Employment: Included as Hamamatsu Factory associates
- Water discharge point: Lake Hamana (rainwater only)

#### Water Quality No dedicated facility

#### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.10	0.05	< 0.01	< 0.01
Nitrogen oxides	ppm	150	75	69	55

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	5,069	20	0	0	0	439	0	4,610
Xylene	25,246	101	0	0	0	2,194	0	22,951
Toluene	38,552	154	0	0	0	3,217	0	35,181
Benzene	1,698	7	0	0	0	146	0	1,545
Total	70,565	282	0	0	0	5,996	0	64,287

### Suzuka Factory

- Address: 1907 Hirata Cho, Suzuka City, Mie Prefecture
- Established: 1960
- Major Products: Civic, Fit, Airwave, etc.
- Employment: 7,021 associates (as of March, 2007)
- Water discharge point: Suzuka River
- ISO 14001 acquired: February 1998

#### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	7.6 (6.8)	7.3
Biochemical oxygen demand (BOD)	mg/L	Max. 65 Ave. 50	Max. 58 Ave. 45	44 (3)	15
Chemical oxygen demand (COD burden)	kg/day	192.5	173.2	159 (111.4)	130.6
Suspended solids (SS)	mg/L	Max. 90 Ave. 70	Max. 81 Ave. 63	17 (4)	10.8
Oil content	mg/L	1	0.9	0.5 (< 0.5)	< 0.5
Phenols	mg/L	1	0.9	< 0.1	< 0.1
Copper and its compounds	mg/L	1	0.9	0.02 (< 0.01)	0.01
Zinc and its compounds	mg/L	2	1	0.21 (0.09)	0.14
Soluble iron and its compounds	mg/L	10	5	0.71 (0.07)	0.41
Soluble manganese and its compounds	mg/L	10	5	0.46 (0.08)	0.29
Total chromium	mg/L	2	1	< 0.2	< 0.2
Fluorine content	mg/L	8	4	2.80 (1.20)	1.82
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	160 (< 10)	29.7
Nitrogen	kg/day	214.7	193.2	15.0 (6.9)	10.5
Phosphorous	kg/day	21.2	19.0	7.3 (1.0)	3.05
Cadmium and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Cyanides	mg/L	1	0.5	0.06 (< 0.05)	< 0.05
Lead and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Hexavalent chromium compounds	mg/L	0.5	0.25	< 0.05	< 0.05

#### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.20	0.100	0.0850 (0.0002)	0.012
Nitrogen oxides	ppm	70	35	20.5 (5.0)	10.5
		130	65	55.3 (1.0)	20.9
		150	75	44.5 (12.4)	19.6
		180	90	56.8 (0.9)	23.1
		200	100	34.0 (27.5)	30.8
Sulphur oxides	K value	14.5	7.25	0.99 (0.0004)	0.03
		230	115	64.3 (1.0)	23.4
Dioxins	ng-TEQ/Nm <sup>3</sup>	5	2.5	1.9	1.9

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Soluble zinc compounds	28,995	0	115	0	5,829	0	0	23,051
Bis phenol A epoxy resins	51,849	0	0	0	214	0	0	51,635
Ethyl benzene	275,343	108,362	0	0	0	94,386	8,579	64,016
Ethylene glycol	1,595,260	0	0	0	0	0	0	1,595,260
Xylene	926,624	223,459	0	0	0	350,859	20,933	331,373
1,3,5-trimethyl benzene	63,755	30,116	0	0	0	28,978	4,661	0
Toluene	785,052	255,483	0	0	0	21,664	15,093	492,812
Nickel compounds	4,132	0	206	0	1,440	0	0	2,486
Bis (2-ethylhexyl) phthalic acid	9,653	0	0	0	97	0	0	9,556
Hydrogen fluoride and its water-soluble salts	1,974	34	274	0	1,666	0	0	0
Benzene	21,226	53	0	0	0	0	0	21,173
Polyoxyethylene alkyl ether	1,371	0	548	0	274	0	549	0
Manganese and its compounds	8,721	0	871	0	1,307	0	0	6,543
Total	3,773,955	617,507	2,014	0	10,827	495,887	49,815	2,597,905
Dioxins (unit: mg-TEQ)	—	129.00	0	0	25.00	0	0	0

Note: Water and air quality items listed are those for which measurement is required by law.

## Kumamoto Factory

- Address: 1500 Hirakawa Ohaza, Ohzu Machi, Kikuchi Gun, Kumamoto Prefecture
- Established: 1976
- Major Products: Minibike, mini vehicle engines, multipurpose engines, transmission parts for passenger vehicles, etc.

- Employment: 2,921 associates (as of March 31, 2007)
- Water discharge point: Kikuchi River via Hyuga River and Koushi River
- ISO 14001 acquired: November 1997

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	6.5-7.9	8.0 (7.3)	7.6
Biochemical oxygen demand (BOD)	mg/L	Max. 10, Ave. 7	3.5	3.1 (1.5)	2.3
Suspended solids (SS)	mg/L	Max. 15, Ave. 19	5	4 (1)	3.5
Oil content	mg/L	Max. 1.5, Ave. 1	0.5	< 0.5	< 0.5
Phenols	mg/L	Max. 0.075, Ave. 0.0	0.025	< 0.025	< 0.025
Copper and its compounds	mg/L	Max. 0.45, Ave. 0.3	0.15	< 0.05	< 0.05
Zinc and its compounds	mg/L	Max. 2, Ave. 1.5	0.75	0.15 (0.1)	0.13
Soluble iron and its compounds	mg/L	Max. 4.5, Ave. 3	1.5	0.16 (< 0.05)	0.08
Soluble manganese and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Total chromium	mg/L	Max. 0.15, Ave. 0.1	0.05	< 0.02	< 0.02
Fluorine content	mg/L	8	4	< 0.2	< 0.2
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	220	220
Nitrogen	mg/L	Max. 120, Ave. 60	30	10 (1.6)	4.9
Phosphorous	mg/L	8	4	1.8 (0.43)	1.12
Cadmium and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Cyanides	mg/L	0.1	0.05	< 0.05	< 0.05
Lead and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Hexavalent chromium compounds	mg/L	Max. 0.75, Ave. 0.05	0.04	< 0.04	< 0.04

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results			
				Maximum (minimum)	Average		
Particulates	g/Nm <sup>3</sup>	0.05	0.025	0.004 (< 0.001)	0.001		
				0.1	0.05	0.02 (< 0.001)	0.003
Nitrogen oxides	ppm	150	75	65 (12)	32		
				180	90	32 (6)	17
				230	115	43 (5)	12

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Bis phenol A epoxy resins	1,985	40	0	0	0	0	0	1,945
Ethyl benzene	16,666	10,952	0	0	0	588	245	4,881
Ethylene glycol	92,991	0	0	0	0	0	0	92,991
Xylene	248,110	126,583	0	0	0	81,810	8,644	31,073
Toluene	78,479	23,481	0	0	0	17,892	704	36,402
Total	438,231	161,056	0	0	0	100,290	9,593	167,292

(Unit: kg)

## Automobile New Model Center

- Address: 2900 Kamitakanezawa Ohaza, Takanezawa Machi, Shiyo Gun, Tochigi Prefecture
- Established: 1995
- Major Responsibilities: Manufacturing of fuel cell vehicles and technical support of automobile manufacturing

- Employment: 838 associates (as of March 31, 2007)
- Water discharge point: Nomoto River via Haga Industrial Park Treatment Center

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	8.3 (6.2)	7.1
Biochemical oxygen demand (BOD)	mg/L	25	12.5	7.9 (< 0.1)	1.2
Chemical oxygen demand	mg/L	25	12.5	9.2 (1.8)	4.8
Suspended solids (SS)	mg/L	50	25	4.5 (< 1.0)	0.8
Oil content	mg/L	5	2.5	1.6 (< 0.5)	0.6
Phenols	mg/L	1	0.5	< 0.1	< 0.1
Copper and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Zinc and its compounds	mg/L	2	1	0.2 (< 0.1)	< 0.1
Soluble iron and its compounds	mg/L	3	1.5	0.3 (< 0.1)	0.25
Soluble manganese and its compounds	mg/L	3	1.5	< 0.1	< 0.1
Total chromium	mg/L	2	1	< 0.1	< 0.1
Fluorine content	mg/L	8	4	0.5 (0.4)	0.5
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	7 (0)	0.8
Nitrogen	mg/L	20	14	18.8 (2.5)	9.2
Phosphorous	mg/L	2	1	< 0.1	< 0.1
Cadmium and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Cyanides	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Lead and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Hexavalent chromium compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Xylene	1,720	263	0	0	79	0	127	1,251
Toluene	2,999	456	0	0	138	0	219	2,186
Total	4,719	719	0	0	217	0	346	3,437

(Unit: kg)

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.1	0.05	< 0.002	< 0.001
				0.2	0.1
Nitrogen oxides	ppm	150	75	46	27.9
				230	115
Sulphur oxides	K value	7	3.5	< 0.018	< 0.0065

Note: Water and air quality items listed are those for which measurement is required by law.

## Supplementary Information

### Quality Innovation Center Tochigi

- Address: 52-1 Hagadai, Haga Machi, Haga Gun, Tochigi Prefecture
- Established: April 2003
- Major Responsibilities: Responses to quality issues in the market

- Employment: 522 associates (as of March 31, 2007)
- Water discharge point: Nomoto River via Haga Industrial Park Treatment Center

#### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8–8.6	5.8–8.6	7.9 (7.0)	7.3
Biochemical oxygen demand (BOD)	mg/L	25	12.5	1.6 (< 0.5)	1.3
Chemical oxygen demand (COD)	mg/L	25	12.5	6.7 (2.9)	4.6
Suspended solids (SS)	mg/L	50	25	3.8 (< 0.5)	1.3
Oil content	mg/L	5	2.5	0.3 (0)	0.2
Phenols	mg/L	1	0.5	< 0.05	< 0.05
Copper and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Zinc and its compounds	mg/L	2	1	0.11 (0.05)	0.1
Soluble iron and its compounds	mg/L	3	1.5	0.12 (< 0.05)	< 0.05
Soluble manganese and its compounds	mg/L	3	1.5	0.02 (< 0.01)	< 0.01
Total chromium	mg/L	2	1	< 0.02	< 0.02
Fluorine content	mg/L	8	4	< 0.02	< 0.02
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	6 (0)	0.5
Nitrogen	mg/L	20	14	9 (8.8)	8.9
Phosphorous	mg/L	2	1	0.33 (< 0.05)	0.09
Cadmium and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Cyanides	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Lead and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Hexavalent chromium compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available

#### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.3	0.15	< 0.005	< 0.005
Nitrogen oxides	ppm	180	90	34.0	28.3
Sulphur oxides	K value	7	3.5	< 0.1	< 0.1

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	1,445	293	0	0	0	0	842	310
Xylene	7,639	1,553	0	0	0	0	4,430	1,656
Toluene	14,434	2,957	0	0	0	0	8,242	3,235
Total	23,518	4,803	0	0	0	0	13,514	5,201

## Honda R&D Co., Ltd.

### Automobile R&D Center (Wako) Fundamental Technology Research Center Aircraft Engine R&D Center

- Address: 1-4-1 Chuo, Wako City, Saitama Prefecture
- Established: 1960 (spin-off from Honda Motor Co., Ltd.)
- Major Responsibilities: Automobile design research, various basic research and development, and development of aircraft engines

- Water discharge point: Wastewater Treatment Center, located in the Arakawa Right Bank District (sewage)

#### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.0–9.0	5.0–9.0	8.8 (7.4)	8.3
Biochemical oxygen demand (BOD)	mg/L	600	300	130 (27)	77
Chemical oxygen demand (COD)	mg/L	Excluded because release is to sewage system			
Suspended solids (SS)	mg/L	600	300	170 (22)	100
Oil content	mg/L	30	15	4.5 (< 2)	2.7
Phenols	mg/L	5	2.5	< 0.5	< 0.5
Copper and its compounds	mg/L	3	1.5	< 0.1	< 0.1
Zinc and its compounds	mg/L	5	2.5	< 0.5	< 0.5
Soluble iron and its compounds	mg/L	10	5	< 1	< 1
Soluble manganese and its compounds	mg/L	10	5	< 1	< 1
Total chromium	mg/L	2	1	< 0.1	< 0.1
Fluorine content	mg/L	8	4	< 1	< 1
Colon bacillus colony count	Parts/cm <sup>3</sup>	Excluded because release is to sewage system			
Nitrogen	mg/L	240	120	51 (14)	31
Phosphorous	mg/L	32	16	3 (< 0.1)	< 2
Cadmium and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Cyanides	mg/L	1	0.5	< 0.1	< 0.1
Lead and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Hexavalent chromium compounds	mg/L	0.5	0.25	< 0.05	< 0.05

#### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.1	0.05	< 0.01	< 0.01
Nitrogen oxides	ppm	150	75	53 (18)	32
Sulphur oxides	K value	9	4.5	< 0.2	< 0.2

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	1,222	154	0	0	48	0	1,020	0
Xylene	6,584	763	0	0	236	0	5,585	0
Toluene	10,896	851	0	0	460	0	9,585	0
Total	18,702	1,768	0	0	744	0	16,190	0

Note: Water and air quality items listed are those for which measurement is required by law.

## Motorcycle R&D Center Power Products R&D Center

•Address: 3-15-1 Senzui, Asaka City, Saitama Prefecture  
•Established: 1973

•Major Responsibilities: Research and development of motorcycles and power products  
•Water discharge point: Arakawa River Right Bank District Shingashi River Sewage Treatment Center

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.0-9.0	5.0-9.0	8.9 (7.2)	8.7
Biochemical oxygen demand (BOD)	mg/L	600	300	440 (17)	147
Chemical oxygen demand (COD)	mg/L	Excluded because release is to sewage system			
Suspended solids (SS)	mg/L	600	300	450 (32)	169
Oil content	mg/L	30	15	26 (1)	7
Phenols	mg/L	5	2.5	0.46 (0.1)	0.26
Copper and its compounds	mg/L	3	1.5	0.03 (0.01)	0.025
Zinc and its compounds	mg/L	5	2.5	0.26 (0.06)	0.15
Soluble iron and its compounds	mg/L	10	5	0.29 (0.08)	0.18
Soluble manganese and its compounds	mg/L	10	5	0.04 (Figures not available)	0.016
Total chromium	mg/L	2	1	Figures not available	Figures not available
Fluorine content	mg/L	8	4	0.16 (Figures not available)	Figures not available
Colon bacillus colony count	Parts/cm <sup>3</sup>	Excluded because release is to sewage system			
Nitrogen	mg/L	240	120	228 (6)	80.1
Phosphorous	mg/L	32	16	16.9 (0.8)	6
Cadmium and its compounds	mg/L	0.1	0.05	Figures not available	Figures not available
Cyanides	mg/L	1	0.5	Figures not available	Figures not available
Lead and its compounds	mg/L	0.1	0.05	< 0.05	< 0.05
Hexavalent chromium compounds	mg/L	0.5	0.25	Figures not available	Figures not available

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.1	0.05	< 0.0056 (< 0.0047)	< 0.0052
Nitrogen oxides	ppm	150	75	52 (24)	32
Sulphur oxides	K value	9	4.5	< 0.0031 (< 0.0007)	0.0024

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	12,491	65	0	0	246	0	12,180	0
Xylene	60,191	128	0	0	1,231	0	58,832	0
Toluene	112,471	369	0	0	4,570	0	107,532	0
Benzene	3,990	1	0	0	82	0	3,907	0
Total	189,143	563	0	0	6,129	0	182,451	0

## Automobile R&D Center (Tochigi)

•Address: 4630 Shimotakanesawa, Haga Machi, Haga Gun, Tochigi Prefecture  
•Established: 1982 Tochigi Laboratory, Wako Research Center  
•Major Responsibilities: General automobile research (design, trial production, and testing of engines, bodies, and chassis)  
•Water discharge point: Nomoto River via Haga Industrial Park Treatment Center (domestic and industrial water)

### Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	7.7 (7.2)	7.3
Biochemical oxygen demand (BOD)	mg/L	25	12.5	17.0 (7.2)	0.8
Chemical oxygen demand (COD)	mg/L	25	12.5	8.0 (3.3)	7.0
Suspended solids (SS)	mg/L	50	25	3.6 (0)	1.3
Oil content	mg/L	5	2.5	1.2 (0)	0.2
Phenols	mg/L	1	0.5	< 0.05	< 0.05
Copper and its compounds	mg/L	3	1.5	< 0.05	< 0.05
Zinc and its compounds	mg/L	2	1	0.1 (0.09)	0.1
Soluble iron and its compounds	mg/L	3	1.5	< 0.05	< 0.05
Soluble manganese and its compounds	mg/L	3	1.5	< 0.01	< 0.01
Total chromium	mg/L	2	1	< 0.02	< 0.02
Fluorine content	mg/L	8	4	< 0.2	< 0.2
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	36 (0)	2.8
Nitrogen	mg/L	20	10	21 (9.8)	15.0
Phosphorous	mg/L	2	1	0.56 (0.3)	0.4
Cadmium and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Cyanides	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Lead and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Hexavalent chromium compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available

### Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.3	0.15	< 0.002	< 0.002
Nitrogen oxides	ppm	180	90	64.5 (34)	47.1
Sulphur oxides	K value	7	3.5	< 0.19	< 0.19

### PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	50,357	857	0	0	0	0	49,500	0
Xylene	491,582	9,864	0	0	494	0	481,224	0
Toluene	793,744	14,047	0	0	27	0	779,671	0
Total	1,335,683	24,768	0	0	521	0	1,310,395	0

Note: Water and air quality items listed are those for which measurement is required by law.

## Supplementary Information

### Automobile R&D Center (Tochigi Proving Ground)

- Address: 4627 Shimotakanesawa, Haga Machi, Haga Gun, Tochigi Prefecture
- Established: 1979
- Major Responsibilities: Comprehensive R&D of motorcycles, automobiles, and power products (on test courses)

- Water discharge point: Via Automobile R&D Center (Tochigi) Nomoto River via Haga Industrial Park Treatment Center (domestic and industrial water)

**Water Quality** Since water is discharged via Automobile R&D Center (Tochigi), water calculations are included in that facility's results.

**Air Quality** No dedicated facility

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Ethyl benzene	11,613	1	0	0	2	0	11,610	0
Xylene	53,324	3	0	0	8	0	53,313	0
1,3,5-trimethyl benzene	7,756	0	0	0	5	0	7,751	0
Toluene	128,730	29	0	0	1	0	128,700	0
Benzene	4,821	4	0	0	0	0	4,817	0
Total	206,244	37	0	0	16	0	206,191	0

### Automobile R&D Center (Takasu Proving Ground)

- Address: 21-10, Takasu Cho, Kamikawa Gun, Hokkaido
- Established: 1996
- Major Responsibilities: Comprehensive R&D of motorcycles, automobiles, and power products (on test courses)
- Water discharge point: Shumamu River

#### Water Quality

**Air Quality** No dedicated facility

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.8-8.6	5.8-8.6	6.7	6.7
Biochemical oxygen demand (BOD)	mg/L	160	80	24	24
Chemical oxygen demand (COD)	mg/L	160	80	45	45
Suspended solids (SS)	mg/L	200	100	45	45
Oil content	mg/L	5	2.5	< 2.0	< 2.0
Phenols	mg/L	3	1.5	< 0.5	< 0.5
Copper and its compounds	mg/L	3	1.5	< 0.05	< 0.05
Zinc and its compounds	mg/L	2	1	0.08	0.08
Soluble iron and its compounds	mg/L	10	5	< 0.1	< 0.1
Soluble manganese and its compounds	mg/L	10	5	< 0.1	< 0.1
Total chromium	mg/L	2	1	< 0.05	< 0.05
Fluorine content	mg/L	8	4	0.48	0.48
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	1,500	5	5
Nitrogen	mg/L	120	60	1.6	1.6
Phosphorous	mg/L	16	8	0.09	0.09
Cadmium and its compounds	mg/L	0.1	0.05	< 0.01	< 0.01
Cyanides	mg/L	1	0.5	< 0.1	< 0.1
Lead and its compounds	mg/L	0.1	0.05	< 0.02	< 0.02
Hexavalent chromium compounds	mg/L	0.5	0.25	< 0.05	< 0.05

#### PRTR Listed Substances

(Unit: kg)

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Xylene	16,946	1	0	0	0	0	16,945	0
Toluene	33,018	6	0	0	0	0	33,012	0
Benzene	1,392	1	0	0	0	0	1,391	0
Total	51,356	8	0	0	0	0	51,348	0

Note: Water and air quality items listed are those for which measurement is required by law.

# Honda Engineering Co., Ltd.

- Address: 6-1 Hagadai, Haga Machi, Haga Gun, Tochigi Prefecture
- Established: 1990
- Major Responsibilities: General machinery and equipment  
(development, design and manufacture of machine tools, dies and functional parts)

- Water discharge point: Nomoto River via Haga Industrial Park Treatment Center  
(domestic and industrial water)
- ISO 14001 acquired: July 1997

## Water Quality

Item	Unit	Regulations (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Hydrogen ion concentration	pH	5.6-8.6	5.6-8.6	8.1 (7.1)	7.5
Biochemical oxygen demand (BOD)	mg/L	25	17.5	3.1 (< 0.5)	0.8
Chemical oxygen demand (COD)	mg/L	25	17.5	5.2 (1.7)	2.9
Suspended solids (SS)	mg/L	50	35	< 2.8 (< 1)	1.2
Oil content	mg/L	5.0	3.5	< 1.0	< 1.0
Phenols	mg/L	1	0.7	0.05 (< 0.05)	0.05
Copper and its compounds	mg/L	3	2.1	< 0.05	< 0.05
Zinc and its compounds	mg/L	2	1.4	< 0.05	< 0.05
Soluble iron and its compounds	mg/L	3	2.1	< 0.05	< 0.05
Soluble manganese and its compounds	mg/L	3	2.1	0.02 (0.01)	0.015
Total chromium	mg/L	2	1.4	< 0.02	< 0.02
Fluorine content	mg/L	8	5.6	0.3 (< 0.3)	0.3
Colon bacillus colony count	Parts/cm <sup>3</sup>	3,000	2100	0	0
Nitrogen	mg/L	20	14	8.8 (2.2)	4.17
Phosphorous	mg/L	2	1.4	0.95 (0.1)	0.43
Cadmium and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Cyanides	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Lead and its compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available
Hexavalent chromium compounds	mg/L	Figures not generated	Figures not available	Figures not available	Figures not available

## Air Quality

Item	Unit	Regulation standards (incl. agreed standards)	Voluntary standards	Measurement results	
				Maximum (minimum)	Average
Particulates	g/Nm <sup>3</sup>	0.2	0.1	< 0.005	< 0.005
Nitrogen oxides	ppm	180	90	8.7	8.7
Hydrogen chloride	mg/Nm <sup>3</sup>	40	20	< 2.8	< 2.8
Sulphur oxides	Nm <sup>3</sup> /h	1.51	0.755	< 0.01	< 0.01

## PRTR Listed Substances

Substance	Volume handled	Volume discharged		Volume transferred		Recycling	Volume disposed	Volume consumed (transferred to products)
		Atmosphere	Released into public water system	Sewage	Waste disposal sites outside company			
Xylene	1,085	397	0	0	283	0	405	0
Nickel compounds	817	0	0	0	813	0	0	4
Total	1,902	397	0	0	1,096	0	405	4

(Unit: kg)

## FY2007 Honda Motor Co., Ltd.: PRTR Listed Substances\*1 Handled (Production domain)

Substances of Concern Declared in accordance with PRTR Law

(units: kg/dioxins: mg-TEQ)

Legal number <sup>2)</sup>	CAS number	Substance	Volume handled	Atmosphere	Release into public water system	Total Volume	Sewage	Waste disposal sites outside company	Total transferred <sup>3)</sup>	Recycling <sup>4)</sup>	Volume disposed	Volume consumed (transferred to products)
1	—	Soluble zinc compounds	68,158	0	133	133	308	19,120	19,428	0	0	48,597
30	25068-38-6	Bis phenol A epoxy resins	109,901	40	0	40	0	2,724	2,724	0	489	106,648
40	100-41-4	Ethyl benzene	780,302	310,260	0	310,260	0	145	145	262,390	33,266	174,241
43	107-21-1	Ethylene glycol	3,777,027	0	0	0	0	0	0	0	0	3,777,027
63	1330-20-7	Xylene	2,469,203	696,656	0	696,656	0	269	269	824,557	93,881	853,840
224	108-67-8	1,3,5-trimethyl benzene	102,999	64,814	0	64,814	0	81	81	29,018	9,086	0
227	108-88-3	Toluene	2,555,555	851,337	0	851,337	0	0	0	66,787	132,041	1,505,390
232	—	Nickel compounds	9,622	0	206	206	1,263	2,373	3,636	0	0	5,780
272	117-81-7	Bis (2-ethylhexyl) phthalic acid	12,068	0	0	0	0	233	233	0	23	11,812
283	—	Hydrogen fluoride and its water-soluble salts	3,567	34	274	308	159	3,096	3,255	4	0	0
299	71-43-2	Benzene	61,475	145	0	145	0	0	0	206	1,671	59,453
307	—	Polyoxyethylene alkyl ether	2,696	0	548	548	133	1,228	1,361	0	787	0
311	—	Manganese and its compounds	23,465	0	871	871	737	7,205	7,942	0	0	14,652
346	—	Molybdenum and its compounds	1,005	0	0	0	0	1,005	1,005	0	0	0
		Total	9,977,043	1,923,286	2,032	1,925,318	2,600	37,479	40,079	1,182,962	271,244	6,557,440
179	—	Dioxins (unit: mg-TEQ)	—	149.22	0.00	149.22	0.42	286.98	287.40	0.00	0.00	0.00

\*1 Among the 354 primary specified substances controlled under article 1 of the Law for PRTR (Pollutant Release and Transfer Register) and Promotion of Chemical Management (substances of concern). Substances in amounts of 1,000 kg or more.

\*2 Numbers assigned primary specified chemical under the Law for PRTR (Pollutant Release and Transfer Register) and Promotion of Chemical Management.

\*3 Volume for which recycling fees have been paid

\*4 Amount sold to external recycling companies

Note: Water and air quality items listed are those for which measurement is required by law.

Sewage

FY2007 Summary of Sewage Use by All Facilities

Measured item	Legal standard	Facility					
		Saitama Factory	Tochigi Factory	Hamamatsu Factory	Suzuka Factory	Kumamoto Factory	Automobile New Model Center
Cadmium	≤ 0.01mg/L	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Cyanides	Figures not generated	Figures not available					
Organic phosphorus	Figures not generated	Figures not available					
Lead	≤ 0.01mg/L	0.002	< 0.001	< 0.005	< 0.005	< 0.001	< 0.005
Hexavalent chromium	≤ 0.05mg/L	< 0.005	< 0.005	< 0.02	< 0.04	< 0.04	< 0.005
Arsenic	≤ 0.01mg/L	< 0.001	< 0.001	< 0.005	< 0.005	0.001	< 0.001
Total mercury	≤ 0.0005mg/L	< 0.00007	< 0.0005	< 0.0005	< 0.0005	< 0.0005	< 0.0005
Alkyl mercury	Figures not generated	Figures not available					
PCBs	Figures not generated	Figures not available					
Dichloromethane	≤ 0.02mg/L	< 0.0005	< 0.002	0.006	< 0.002	< 0.002	< 0.002
Carbon tetrachloride	≤ 0.002mg/L	< 0.0005	< 0.0002	< 0.0002	< 0.0005	< 0.0002	< 0.0002
1, 2 Dichloromethane	≤ 0.004mg/L	< 0.0005	< 0.0004	< 0.0004	< 0.0004	< 0.0004	< 0.0004
1, 2 Dichloromethane	≤ 0.02mg/L	< 0.0005	< 0.002	0.002	< 0.002	< 0.002	< 0.002
cis-1 Dichloromethane	≤ 0.04mg/L	< 0.0005	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004
1,1,1 Trichloroethane	≤ 1.0mg/L	< 0.0005	< 0.0005	0.0006	< 0.001	< 0.0005	< 0.0005
1,1,2 Trichloroethane	≤ 0.006mg/L	< 0.0005	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
Trichlorethylene	≤ 0.03mg/L	< 0.005	0.008	0.011	< 0.002	< 0.002	< 0.001
Tetrachloroethylene	≤ 0.01mg/L	< 0.0005	0.0072	0.0025	< 0.0005	< 0.0005	< 0.0005
1, 3 Dichloropropene	≤ 0.002mg/L	< 0.001	< 0.0002	< 0.0002	< 0.0002	< 0.0002	< 0.0002
Thiram	≤ 0.006mg/L	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006	< 0.0006
Simazine	≤ 0.003mg/L	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003	< 0.0003
Thiobencarb	≤ 0.02mg/L	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002	< 0.002
Benzene	≤ 0.01mg/L	< 0.0005	< 0.001	< 0.001	< 0.001	< 0.001	< 0.001
Selenium	≤ 0.01mg/L	< 0.005	< 0.001	< 0.002	< 0.001	< 0.001	< 0.001
Fluorine	≤ 0.8mg/L	0.22	< 0.2	< 0.08	< 0.1	< 0.08	< 0.2
Boron	≤ 1.0mg/L	< 0.2	< 0.1	0.06	< 0.08	< 0.01	< 0.1

Measured item	Legal standard	Facility				
		Quality Innovation Center Tochigi	Automobile R&D Center (Wako), other	Motorcycle R&D Center, other	Automobile R&D Center (Tochigi)	Honda Engineering Co., Ltd.
Cadmium	≤ 0.01mg/L	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001
Cyanides	Figures not generated	Figures not available	Figures not available	Figures not available	Figures not available	Figures not available
Organic phosphorus	Figures not generated	Figures not available	Figures not available	Figures not available	Figures not available	Figures not available
Lead	≤ 0.01mg/L	0.002	< 0.001	< 0.01	< 0.001	< 0.001
Hexavalent chromium	≤ 0.05mg/L	< 0.005	< 0.005	< 0.05	< 0.005	< 0.005
Arsenic	≤ 0.01mg/L	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001
Total mercury	≤ 0.0005mg/L	< 0.0005	< 0.00005	< 0.0005	< 0.0005	< 0.0005
Alkyl mercury	Figures not generated	Figures not available	Figures not available	Figures not available	Figures not available	Figures not available
PCBs	Figures not generated	Figures not available	Figures not available	Figures not available	Figures not available	Figures not available
Dichloromethane	≤ 0.02mg/L	< 0.002	< 0.002	< 0.02	< 0.002	< 0.002
Carbon tetrachloride	≤ 0.002mg/L	< 0.0002	< 0.0002	< 0.002	< 0.0002	< 0.0002
1, 2 Dichloromethane	≤ 0.004mg/L	< 0.0004	< 0.0004	< 0.004	< 0.0004	< 0.0004
1, 1 Dichloromethane	≤ 0.02mg/L	< 0.002	< 0.002	< 0.02	< 0.002	< 0.002
cis-1,2 Dichloromethane	≤ 0.04mg/L	< 0.004	< 0.004	< 0.04	< 0.004	< 0.004
1,1,1 Trichloroethane	≤ 1.0mg/L	< 0.001	< 0.0005	< 1	< 0.001	< 0.001
1,1,2 Trichloroethane	≤ 0.006mg/L	< 0.0006	< 0.0006	< 0.006	< 0.0006	< 0.0006
Trichlorethylene	≤ 0.03mg/L	< 0.001	< 0.002	< 0.03	< 0.001	< 0.001
Tetrachloroethylene	≤ 0.01mg/L	< 0.0005	< 0.0005	< 0.01	< 0.0005	< 0.005
1, 3 Dichloropropene	≤ 0.002mg/L	< 0.0002	< 0.0002	< 0.002	< 0.0002	< 0.0002
Thiram	≤ 0.006mg/L	< 0.0006	< 0.0006	< 0.006	< 0.0006	< 0.0006
Simazine	≤ 0.003mg/L	< 0.0003	< 0.0003	< 0.003	< 0.0003	< 0.0003
Thiobencarb	≤ 0.02mg/L	< 0.002	< 0.002	< 0.02	< 0.002	< 0.002
Benzene	≤ 0.01mg/L	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001
Selenium	≤ 0.01mg/L	< 0.001	< 0.001	< 0.01	< 0.001	< 0.001
Fluorine	≤ 0.8mg/L	< 0.2	< 0.1	< 0.8	< 0.2	< 0.2
Boron	≤ 1.0mg/L	0.14	< 0.1	< 1	< 0.1	< 0.1

Note:

•The figures in the chart are certified measurements provided by a measurement company, and have been listed with no amendment.

Legend

Undetected < \_\_\_\_: indicates that figures are the minimum amount detectable by the measuring equipment used and that nothing was detected

## Recycling Results for End-of-Life Vehicles in FY2007

•Started on: April 1, 2006 •Ended on: March 31, 2007

Item			Results
CFCs	Volume accepted	Weight of CFC accepted	27,030.6 kg
		Weight of HFC accepted	50,389.6 kg
		Total	77,420.2 kg
	Number of vehicles accepted	Number of vehicles from which CFC was recovered	97,075 vehicles
		Number of vehicles from which HFC was recovered	152,083 vehicles
		Total	249,158 vehicles
Cost	Amount of recycling deposits repaid	¥522,179,038	
	Total recycling cost	¥547,246,514	
Inflators (airbags)	Amount accepted	Number of inflators recovered	23,951 pieces
		Number of airbags deployed	132,533 pieces
		Total number of airbags collected	156,484 pieces
	Number of vehicles accepted	Number of vehicles from which inflators were collected	13,379 vehicles
		Number of vehicles in which all airbags were deployed	64,170 vehicles
		Number of vehicles in which some airbags were recovered, others deployed	150 vehicles
		Total vehicles from which airbags were recovered or collected	77,699 vehicles
	Recycling volume	Total weight of inflators accepted	16,191.9 kg
		Total weight of inflators accepted and made reusable	15,237.9 kg
	Recycling rate	Recycling rate of inflators	94.1%
Cost	Amount of recycling deposits repaid	¥139,247,869	
	Total recycling cost	¥167,041,139	
Automobile shredder residue (ASR)	Volume accepted	Total weight of inflators collected	56,944.7 tons
	Number of vehicles accepted	Number of vehicles of which ASR was accepted and used	289,062 vehicles
		Number of dismantled vehicles recycled into iron or steel products without generating ASR	44,184 vehicles
	Recycling amount	Weight of ASR delivered to recycling facilities	36,075.6 tons
		Weight of residue from recycling facilities	4,282.2 tons
		Weight equiv. of ASR that would have been generated from autos dismantled at facilities without generating ASR	7,617.5 tons
		Weight of waste from facilities that dismantle automobiles without generating ASR	343 tons
		Weight of ASR reduced	0 tons
	Recycling rate	Recycling rate of ASR	68.6%
Facilities	Facilities complying with the standards	*See below	
Cost	Amount of recycling deposits repaid	¥1,955,838,038	
	Total recycling cost	¥1,915,981,327	

### \*Names of facilities complying with the standards for automobile shredder residue

Aomori Renewable Energy Recycling Co., Ltd.

AKEMI Recycle Center Corporation

ECO-SYSTEM OKAYAMA Co., Ltd.

ECO-SYSTEM KOSAKA Co., Ltd.

Eco Valley Utashinai Co., Ltd.

Onahama Plant, Onahama Smelting and Refining Co., Ltd.

ORIX Resource Recycling Services Corporation

Kanemura Eco Works Co., Ltd.

Kamtecs, Inc.

Kitakyushu Ecoenergy Co., Ltd.

KYOEI STEEL LTD.

Clean Stage Co., Ltd.

ECONECOL Inc.

GE Co., Ltd.

Arahama Plant, Shimoda Industry Co., Ltd.

Nagoya Works, Nippon Steel Corporation

Sumikin Recycling Co., Ltd.

Seinan Corporation

Miki Recycling Center, Daiei Inter Nature System Inc.

Takunan Shoji Co., Ltd.

Tohoku Tokyotekko Co., Ltd.

Toyota Metal Co., Ltd.

Nikko Mikkaichi Recycle Co., Ltd.

Hiroshima Gas Techno Co., Ltd.

ASR Recycling Plant, Matec Corporation

Mie Recycling Center, Mie Central Development Co., Ltd.

Mizushima Eco-Works Co., Ltd.

Naoshima Smelter & Refinery, Mitsubishi Materials Corporation

Eco Clean Plaza Miyazaki

# Report Scope

## Purchasing Domain

Major results in the purchasing domain cover the following 32 Japan affiliates of Honda Motor Co., Ltd.

Yutaka Giken Co., Ltd.	Keihin Corporation	H-one Co., Ltd.	Shinnichi Kogyo Co., Ltd.	Bestex Kyoei Co., Ltd.
Asama Giken Co., Ltd.	TS TECH Co., Ltd	Yamada Seisakusho Co., Ltd.	Kyushu Yanagawa Seiki Co., Ltd.	Kaneta Kogyo Co., Ltd.
Honda Foundry Co., Ltd.	F.C.C. Co., Ltd.	AIKITEC Co., Ltd.	Kikuchi Co., Ltd.	Marujun Co., Ltd.
Honda Lock Mfg. Co., Ltd.	Nissin Kogyo Co., Ltd.	Takao Kinzoku Kogyo Co., Ltd.	Goshi Giken Co., Ltd.	Masuda Seisakusho Co., Ltd.
Yachiyo Industry Co., Ltd.	Musashi Seimitsu Co., Ltd.	Tanaka Seimitsu Kogyo Co., Ltd.	Steel Center Co., Ltd.	
MSD Co., Ltd.	F-Tech Inc.	Tsuzuki Manufacturing Co., Ltd.	Nihon Plast Co., Ltd.	
Showa Corporation	Yanagawa Seiki Co., Ltd.	Atsumitec Co., Ltd.	Honda elesys Co., Ltd.	

## Production Domain

Results in the production domain cover the following five Japan factories of Honda Motor Co., Ltd.

Honda Motor Co., Ltd.
Saitama Factory
Tochigi Factory
Hamamatsu Factory (including the Hosoe Plant)
Suzuka Factory
Kumamoto Factory

## Transportation Domain

Results in the transportation domain cover the transportation in Japan of automobiles, motorcycles, power products, and repair parts produced by Honda Motor Co., Ltd.

Results for packaging materials cover packages used in exporting completed motorcycles and component parts sets\*

\* Set of parts exported overseas for local assembly into final products

## Administration Domain

Results in the office domain cover the following four Japan office buildings of Honda Motor Co., Ltd.

Honda Motor Co., Ltd.
Wako Building
Aoyama Building
Shirako Building
Yaesu Building

## Honda Group companies in Japan

Description of environmental preservation initiatives covers the three main Honda Group companies in Japan.

Information on environmental impact covers 54 Honda Group companies in Japan.

<ul style="list-style-type: none"> <li>• <b>Main Honda Group Companies in Japan (4)</b></li> <li>Honda Motor Co., Ltd.</li> <li>Honda R&amp;D Co., Ltd.</li> <li>Honda Engineering Co., Ltd.</li> <li>Honda Access Corporation</li> </ul>	<ul style="list-style-type: none"> <li>Showa Corporation</li> <li>Keihin Corporation</li> <li>TS TECH Co., Ltd.</li> <li>F.C.C. Co., Ltd.</li> <li>Nissin Kogyo Co., Ltd</li> <li>Musashi Seimitsu Co., Ltd.</li> <li>F-Tech Inc.</li> <li>Yanagawa Seiki Co., Ltd.</li> <li>H-one Co., Ltd.</li> <li>Yamada Seisakusho Co., Ltd.</li> <li>AIKITEC Co., Ltd.</li> <li>Takao Kinzoku Kogyo Co., Ltd.</li> <li>Tanaka Seimitsu Kogyo Co., Ltd.</li> <li>Tsuzuki Manufacturing Co., Ltd.</li> <li>Atsumitec Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>Shinnichi Kogyo Co., Ltd.</li> <li>Kyushu Yanagawa Seiki Co., Ltd.</li> <li>Kikuchi Co., Ltd.</li> <li>Goshi Giken Co., Ltd.</li> <li>Steel Center Co., Ltd.</li> <li>Nihon Plast Co., Ltd.</li> <li>Honda elesys Co., Ltd.</li> <li>Bestex Kyoei Co., Ltd.</li> <li>Kaneta Kogyo Co., Ltd.</li> <li>Marujun Co., Ltd.</li> <li>Masuda Seisakusho Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Other Honda Group Companies in Japan (18)</b></li> <li>Kibounosato Honda Co., Ltd.</li> <li>Honda Sun Co., Ltd.</li> <li>Mizutani Seiki Industry Co., Ltd.</li> <li>Honda Finance Co., Ltd.</li> <li>Honda Racing Corporation</li> <li>Honda Trading Corporation</li> <li>Mobilityland Corporation</li> <li>Rainbow Motor School Co., Ltd.</li> <li>ACT Maritime Co., Ltd</li> <li>Honda Airways Co., Ltd.</li> <li>Chu-o Air Survey Corp.</li> <li>Honda Tokuso Co., Ltd.</li> <li>Honda Commtec Inc.</li> <li>Circuit Service Creates</li> <li>KP-Tech</li> <li>Honda Kaihatsu Co., Ltd.</li> <li>Mobility Culture Publishing Co., Ltd.</li> <li>Honda Technical College</li> </ul>
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Note: Water and air quality items listed are for 44 Honda Group companies in Japan  
Calculations of PRTR substances are those for the three main Honda Group companies in Japan

## Global Environmental Information (Production Domain)

Global environmental information covers a total of 83 Honda companies, which include both Japan-based and overseas companies that assemble final products, including Honda Motor Co., Ltd, and major parts companies. 73 of these companies are covered by the scope of the FY2010 CO<sub>2</sub> reduction targets.

<ul style="list-style-type: none"> <li>• <b>Japan (33 companies)</b></li> <li>Honda Motor Co., Ltd.</li> <li>Yutaka Giken Co., Ltd.</li> <li>Asama Giken Co., Ltd.</li> <li>Honda Foundry Co., Ltd.</li> <li>Honda Lock Mfg. Co., Ltd.</li> <li>Yachiyo Industry Co., Ltd.</li> <li>MSD Co., Ltd.</li> <li>Showa Corporation</li> <li>Keihin Corporation</li> <li>TS TECH Co., Ltd.</li> <li>F.C.C. Co., Ltd.</li> <li>Nissin Kogyo Co., Ltd</li> <li>Musashi Seimitsu Co., Ltd.</li> <li>F-Tech Inc.</li> <li>Yanagawa Seiki Co., Ltd.</li> <li>H-one Co., Ltd.</li> <li>Yamada Seisakusho Co., Ltd.</li> <li>AIKITEC Co., Ltd.</li> <li>Takao Kinzoku Kogyo Co., Ltd.</li> <li>Tanaka Seimitsu Kogyo Co., Ltd.</li> <li>Tsuzuki Manufacturing Co., Ltd.</li> <li>Atsumitec Co., Ltd.</li> <li>Shinnichi Kogyo Co., Ltd.</li> <li>Kyushu Yanagawa Seiki Co., Ltd.</li> <li>Kikuchi Co., Ltd.</li> <li>Goshi Giken Co., Ltd.</li> <li>Steel Center Co., Ltd.</li> <li>Nihon Plast Co., Ltd.</li> <li>Honda elesys Co., Ltd.</li> <li>Bestex Kyoei Co., Ltd.</li> <li>Kaneta Kogyo Co., Ltd.</li> <li>Marujun Co., Ltd.</li> <li>Masuda Seisakusho Co., Ltd.</li> </ul>	<ul style="list-style-type: none"> <li>• <b>North America (8 companies)</b></li> <li>Honda of America Mfg., Inc. (US)</li> <li>Honda Transmission Mfg. of America, Inc. (US)</li> <li>Honda Power Equipment Mfg., Inc. (US)</li> <li>Honda of South Carolina Mfg., Inc. (US)</li> <li>Honda Mfg. of Alabama, LLC (US)</li> <li>Honda Precision Parts of Georgia, LLC (US)</li> <li>Honda Canada Inc. (Canada)</li> <li>Honda de Mexico, S.A. de C.V. (Mexico)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>South America (2 companies)</b></li> <li>Moto Honda da Amazonia Ltda. (Brazil)</li> <li>Honda Automoveis do Brasil Ltda. (Brazil)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Europe (8 companies)</b></li> <li>Honda of the U.K. Mfg., Ltd. (UK)</li> <li>Honda Belgium N.V. (Belgium)</li> <li>Honda Europe N.V. (Belgium)</li> <li>Honda Italia Industriale S.p.A. (Italy)</li> <li>C.I.A.P. S.P.A. (Italy)</li> <li>Montesa Honda S.A. (Spain)</li> <li>Honda Turkiye A.S. (Turkey)</li> <li>Honda Europe Power Equipment S.A. (France)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Asia/Oceania (22 companies)</b></li> <li>Honda Automobile (Thailand) Co., Ltd. (Thailand)</li> <li>Thai Honda Mfg. Co., Ltd. (Thailand)</li> <li>Asian Autoparts Co., Ltd. (Thailand)</li> <li>Honda Cars Philippines Inc. (The Philippines)</li> <li>Honda Philippines, Inc. (The Philippines)</li> <li>Honda Parts Mfg. Corp. (The Philippines)</li> <li>Honda Taiwan Co., Ltd. (Taiwan)</li> <li>Honda Siel Cars India Ltd. (India)</li> <li>Honda Motorcycle and Scooter India (Private) Ltd. (India)</li> <li>Hero Honda Motors Ltd. (India)</li> <li>Honda Siel Power Products Ltd. (India)</li> <li>P.T. Honda Prospect Motor (Indonesia)</li> <li>P.T. Honda Precision Parts Mfg. (Indonesia)</li> <li>P.T. Astra Honda Motor (Indonesia)</li> <li>Honda Atlas Cars (Pakistan) Ltd. (Pakistan)</li> <li>Atlas Honda Ltd. (Pakistan)</li> <li>Honda Vietnam Co., Ltd. (Vietnam)</li> <li>Machino Auto-Parts Co., Ltd. (Vietnam)</li> <li>Honda Autoparts Mfg. (M) SDN BHD (Malaysia)</li> <li>Honda Malaysia Sdn. Bhd. (Malaysia)</li> <li>Armstrong Auto Parts SDN. BHD. (Malaysia)</li> <li>HICOM-Honda Mfg. Malaysia SDN. BHD. (Malaysia)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>China (9 companies)</b></li> <li>Honda Automobile (China) Co., Ltd. (China)</li> <li>Dongfeng Honda Auto Parts Co., Ltd. (China)</li> <li>Dongfeng Honda Engine Co., Ltd. (China)</li> <li>Dongfeng Honda Automobile Co., Ltd. (China)</li> <li>Guangzhou Honda Automobile Co., Ltd. (China)</li> <li>Wuyang-Honda Motors (Guangzhou) Co., Ltd. (China)</li> <li>Jialing-Honda Motors Co., Ltd. (China)</li> <li>Honda Mindong Generator Co., Ltd. (China)</li> <li>Sundiro Honda Motorcycle Co., Ltd. (China)</li> </ul>
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## Third-Party Comment

# Evaluation of the Honda Environmental Annual Report 2007

## Katsuhiko Kokubu

Professor, Graduate School of Business Administration,  
Kobe University

Received Ph.D. (Business Administration) from the Graduate School of Business, Osaka City University. Has held current position since 2001. Established the Institute for Environmental Management Accounting in 2003 to apply his research findings. Has served as the chairperson of Japan's Ministry of Economy, Trade and Industry's Material Flow Cost Accounting Development and Promotion Committee and as a member of the Environmental Reporting Guidelines Study Committee of Japan's Ministry of the Environment. Publications include *Kankyo Keiei, Kaikei* (Environmental Management Accounting), published by Yuhikaku Publishing.



### •Worthy of scrutiny by environmental specialists

One of the main features of Honda's Environmental Annual Report is the editorial policy that ensures the report provides answers to the kinds of questions specialists ask about environmental issues. While many reports go too far in the effort to simplify, which paradoxically can result in a lack of clarity, this Honda report deserves high marks for its substance. Its structure, which focuses on the targets and results of environmental conservation initiatives in seven different domains, makes this comprehensive report accessible.

### •Environmental impact reduction targets for 2010

Last year, Honda became the first automaker to publicly announce CO<sub>2</sub> emissions reduction targets for all its products and production activities worldwide. This year, in addition to reporting on progress toward those targets, Honda also announced its environmental impact reduction targets in Japan for 2010. This commitment to environmental conservation is worthy of special mention. The fact that Honda has set targets for both products and production is of vital importance. In my view, Honda is comprehensively addressing the environmental impact of the automotive industry.

### •Information disclosure covering the Honda Group and the global organization

Although Honda's report primarily focuses on its operations in Japan, it also devotes considerable attention to its global operations. Also, this year's report features disclosure of the activities of individual Group affiliates in Japan. In the future, expanded disclosure of environmental information and more comprehensive information on Japan affiliates and overseas operations would further enhance this publication.

Honda also publishes a North American environmental report; therefore, this can be considered the Japan report. If in the future Honda published a global report, I believe it would serve as a model of environmental reporting for global corporations.

### •Management in support of environmental conservation

Honda has set its own ambitious environmental targets and is proactively working to attain them. This global undertaking requires implementation of forward-looking policies and procedures. I am confident that Honda is implementing its own distinctive measures to ensure that organization-wide objectives filter down to individual departments, to maintain consistency in the analysis of gross and unit-based results, to balance environmental and economic objectives, and to raise awareness of environmental conservation among its employees. A more comprehensive explanation of these measures would help to clarify and demonstrate a cohesive approach to the management required to realize Honda's lofty objectives.

### •Including customers in environmental conservation

Automobiles have a considerable impact on the environment during the product use phase, so customer cooperation is essential in order to reduce environmental impact. More emphasis should be placed on raising customer awareness. Facilitating bilateral communication with all stakeholders and engaging in environmental conservation initiatives that involve customers directly will be of great importance in furthering the cause of the environment. I look forward to seeing Honda continue to show leadership in global environmental conservation.

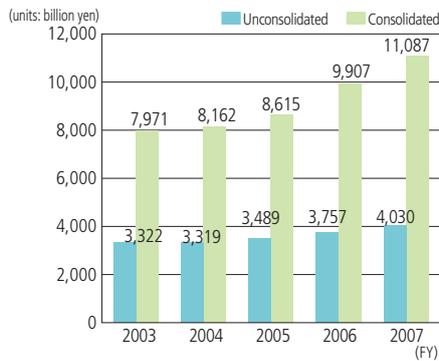
國部克彦

# Company Overview & Financial Information

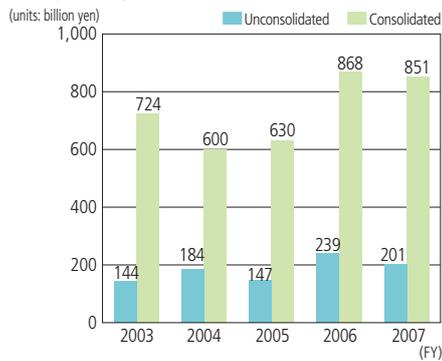
<http://world.honda.com/profile/overview/>

<b>Company name</b>	Honda Motor Co., Ltd.	<b>Consolidated subsidiaries</b>	405 (as of March 31, 2007)
<b>Head office</b>	2-1-1 Minami Aoyama, Minato-ku Tokyo 107-8556, Japan	<b>Chief products</b>	Automobiles Standard-sized vehicles, compact vehicles and mini vehicles
<b>Established</b>	September 24, 1948		
<b>President &amp; CEO</b>	Takeo Fukui		Motorcycles Scooters, mini-bikes, motorcycles, ATVs and personal watercraft
<b>Capital</b>	¥86 billion (as of March 31, 2007)		
<b>Sales</b>	Consolidated: ¥11,087.1 billion (Results of FY2007) Unconsolidated: ¥4,030.8 billion		Power products power product engines, lawn mowers and marine outboards
<b>Number of employees</b>	Consolidated: 167,231 (as of March 31, 2007) Unconsolidated: 26,652 (as of March 31, 2007)		

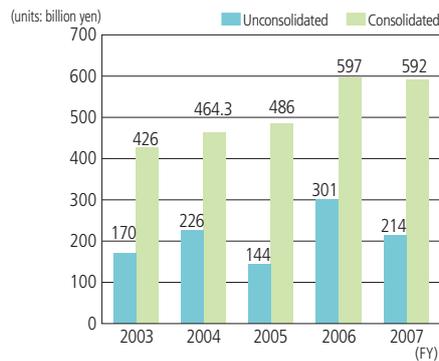
## • Net Sales



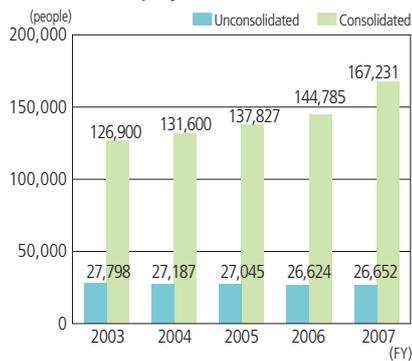
## • Operating Income



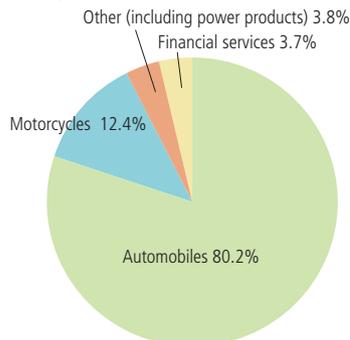
## • Net Income



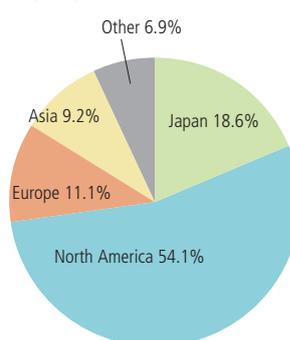
## • Number of Employees



## • Net Sales by Operational Area (consolidated: FY2007)

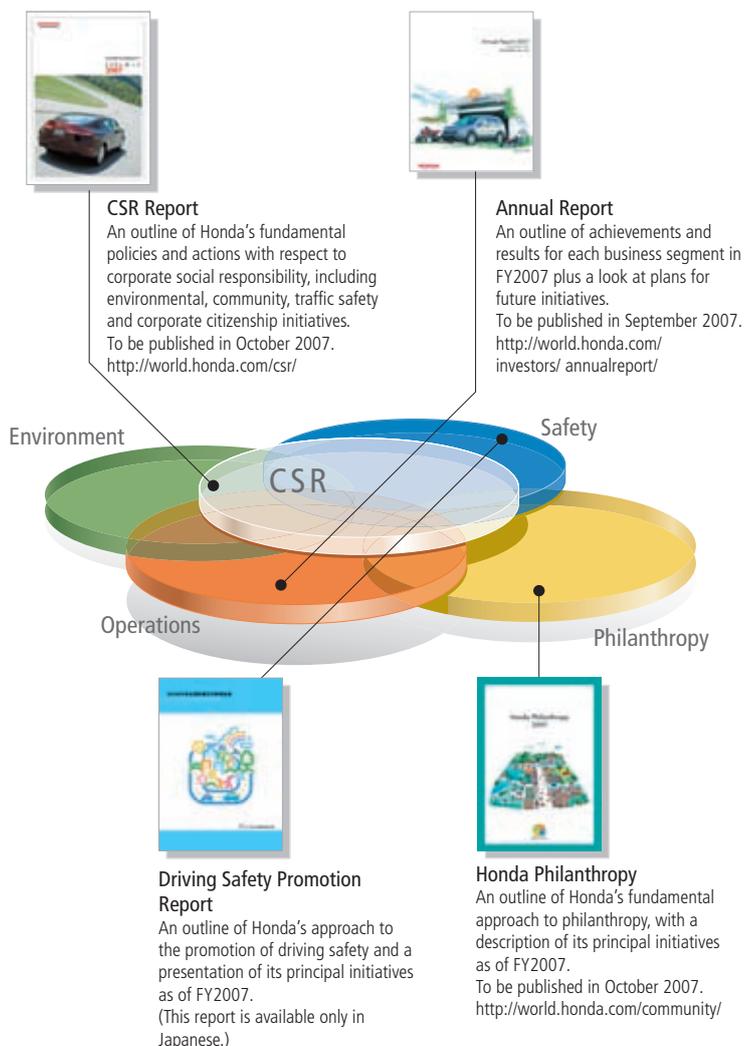


## • Net Sales by Region (consolidated: FY2007)



## FY2007 Reports

In addition to the Environmental Annual Report, Honda publishes both printed and online versions of the reports shown here:



Honda publishes these reports to provide information on our initiatives and results in a form that can be readily evaluated as part of our effort to enhance communications with all stakeholders, and with a view to further improving our practices in all domains.

Honda also provides information updates on its website.

### Honda Worldwide site: key URLs

Corporate information  
<http://world.honda.com/profile/>

CSR  
<http://world.honda.com/csr/>

Investor relations  
<http://world.honda.com/investors/>

Environment  
<http://world.honda.com/environment/>

Philanthropy  
<http://world.honda.com/community/>

Safety  
<http://world.honda.com/safety/>

## •Persons Responsible

Sales and Services	Automobile Sales	Koji Masuda
		Minoru Awahara
	Motorcycle Sales	Minoru Nagata
	Power Product Sales	Hideki Kuji
	Parts Sales	Koji Yamaguchi
	Recycle Promotion Office	Yukihide Yamashita
Purchasing	Automobile Purchasing	Toshiyuki Mogushi
Factory and Office Operations		
Environmental Administrator		
	Saitama Factory	Makoto Shimoosawa
	Tochigi Factory	Hiroshi Yanaka
	Hamamatsu Factory	Tadayuki Onishi
	Suzuka Factory	Masaomi Ajioka
	Kumamoto Factory	Seiichi Yotsumoto
	Automobile New Model Center	Makoto Horiuchi
	Quality Innovation Center Tochigi	Yukihiro Kariya
	Head Office	Haruki Nagata
Honda R&D Co., Ltd.		
	Automobile R&D Center (Wako)/Fundamental Technology Research Center/	
	Aircraft Engine R&D Center	Takayuki Kawashima
	Motorcycle R&D Center/ Power Products R&D Center	Chikara Fukuda
	Automobile R&D Center (Tochigi)/	
	Automobile R&D Center (Tochigi Proving Ground)/	
	Automobile R&D Center (Takasu Proving Ground)	Tomoyuki Sawada
Honda Engineering Co., Ltd.		
		Masuhiko Sakurai
Logistics	Products and component parts sets	Tomonori Arai
Administration	Administration	Haruki Nagata
	Personnel	Masahiro Yoshida
	Corporate Communication	Hiroshi Oshima
Secretariat	Environment & Safety Planning Office	Keiichi Mitobe

Note: current as of June 1, 2007

## •Third-Party Verification

For the reasons given below, we have not obtained third-party verification.

1. No guidelines have been established for third-party verification.
2. The qualifications required of third-party verification organizations have not been clearly established.

We will continue to consider third-party verification and the timing of its potential introduction in light of progress made in relation to the items described above. The results presented in this report have been presented by the departments concerned and endorsed by Honda's Japan Environmental Committee. Information relating to factories has been reviewed in environmental audits and surveillance inspections under the auspices of ISO 14001.

## •Please direct enquiries to:

Environment & Safety Planning Office Tel: +81-(0)3-5412-1155  
Fax: +81-(0)3-5412-1154

This report can also be found on Honda's Worldwide website.

<http://world.honda.com/environment/2007report/index.html>

# HONDA



This pamphlet is printed on paper at least 70% recycled from excess copies of out-of-date product catalogues and other publications, and printed with 100% VOC-emissions-free soy ink using a printing process free of hazardous wastewater emissions.

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