HONDA
The Power of Dreams

# EUROPEAN ENVIRONMENTAL REPORT 2014

BLUE SKIES FOR
OUR CHILDREN




## REPORT SCOPE

Third report issued, publication October 2014.
Data collection period: fiscal year base 1 April – 31 March (FY2013). The year indicated in the graphs is the year of the beginning of the period (1 April 2013 – 31 March 2014 is referred to as 2013 data). The year reference in the name of this report is the year of issue of the report - within six months of the end of the reporting period end.

### Areas covered by this report:

This report covers all entities which are controlled by the Regional Operation Board of the European region. This includes all sites in Europe, Near Middle East, Africa and Russia, in which Honda, globally or locally, has a significant participation.

The products covered are cars, motorcycles and power equipment. Parts distribution is also covered in this report. The report summarises data from factories, Honda national sales offices, logistics centres and regional R&D offices as well as six Honda-owned dealers in Switzerland. The detailed locations are summarised in tables.

## COLOPHON

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**Creation**
www.bigfish-cp.be

# GLOBAL REPORT
PROLOGUE



## PROLOGUE

### About the Honda Environmental Annual Report

**• A regional Approach to Business Environment**

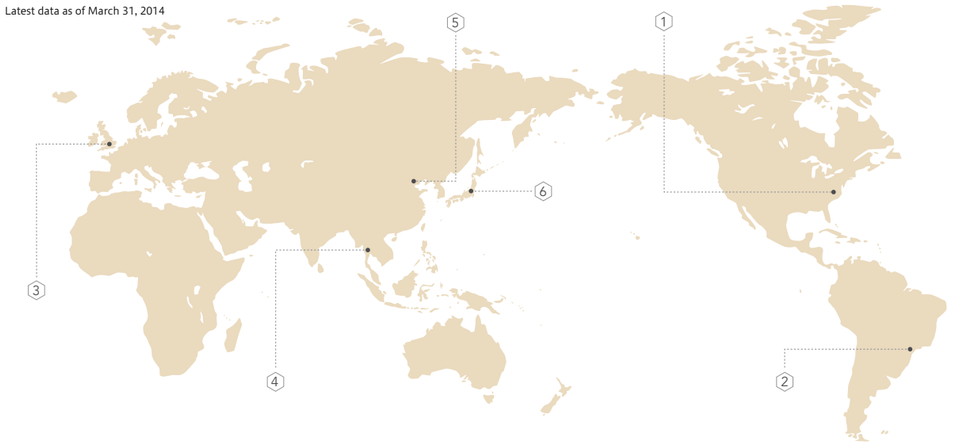
Guided by a philosophy of building products close to the customer, Honda has manufacturing operations in six regions worldwide. In fiscal 2014, these activities brought joy to people worldwide through the sale of roughly 27 million products. To continually create competitive products that anticipate customer needs in all six regions, we've shifted to a new global operational structure that gives each region more autonomy for doing its job. This also applies to environmental management: Each region is now implementing initiatives it deems most effective for meeting local environmental laws and standards and tackling local challenges.

**• Global Report Six Regional Reports**

For reporting on the environmental activities across our global organization, we've broken down our annual environmental report into one global report and six regional reports. Honda Environmental Annual Report 2014 conveys our global stance on environmental issues, our vision for a better future, and the results of efforts to make our products and business activities more environmentally responsible. The regional reports provide a more in-depth look at these activities in each region. By issuing all seven annual reports, we are making an active effort to disclose information on initiatives and results in every corner of world.

### Regional Unit Sames and Environmental Reports (FY2014)

Latest data as of March 31, 2014




| | Global | 1 North America | 2 South America | 3 Europe/ Middle East/ Africa | 4 Asia & Oceania | 5 China | 6 Japan |
|---|---|---|---|---|---|---|---|
| Environmental reports |  |  |  |  |  |  |  |
| Motorcycles | 17,041,000 | 289,000 | 1,647,000 | 312,000 | 13,260,000 | 1,305,000 | 225,000 |
| Automobiles | 4,362,000 | 1,751,000 | 161,000 | 252,000 | 560,000 | 788,000 | 848,000 |
| Power products and other | 6,036,000 | 2,718,000 | 137,000 | 1,155,000 | 1,129,000 | 582,000 | 312,000 |

*Report covers from 2013 are shown for all regions except Japan. The 2014 editions of these reports will be published soon in 2014.

# Company Overview/Financial Information

## Company overview

Company name: Honda Motor Co., Ltd.

Head office: 2-1-1 Minami Aoyama, Minato-ku, Tokyo 107-8556, Japan

Established: September 24, 1948

President & CEO: Takanobu Ito

Capital: ¥86.067 billion (as of March 31, 2014)

Sales: Consolidated: ¥11.842 trillion Unconsolidated ¥3.488 trillion

Number of associates: Consolidated: 198,561 (as of March 31, 2014) Unconsolidated 23,467(as of March 31, 2014)

Consolidated subsidiaries: 365 (as of March 31, 2014)

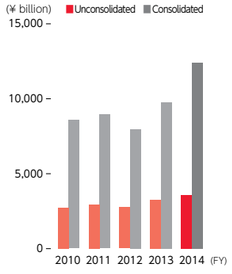
Major products: <Motorcycles> Scooters, mini-bikes, motorcycles, and ATVs

<Automobiles> Standard-sized vehicles, compact vehicles, and mini-vehicles

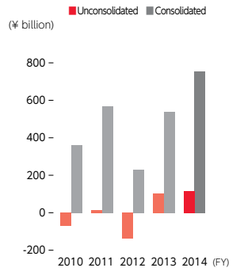
<Power products> Tillers, Generators, Power product engines, lawnmowers, marine outboard engines, Snow blowers, and household gas engine cogeneration units

## Financial information

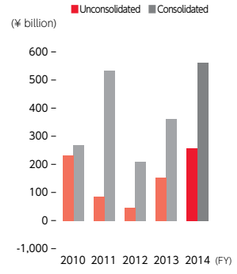
Net sales



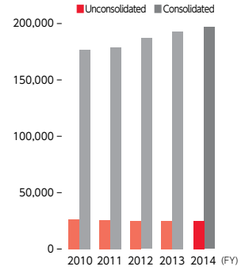

Operating income



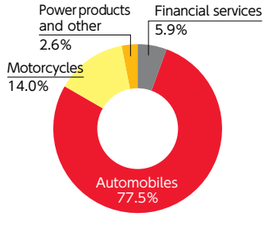

Net income



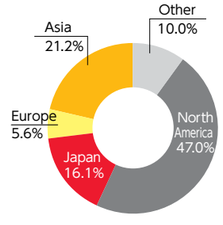

Number of associates




Net sales by operational area (consolidated: FY2014)




Net sales by region (consolidated: FY2014)




*See Honda Annual Report (PDF) for detailed financial information.



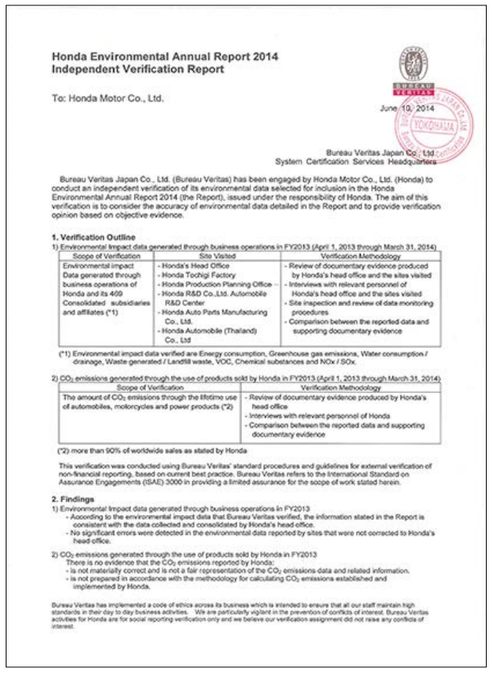


# Third-Party Verification

To disclose environmental impact data in a more transparent and reliable manner to our diverse stakeholders, Honda obtained third-party verification of the following information from Bureau Veritas Japan Co., Ltd.[1]

(Organizational scope of verification) Environmental impact data from Honda Motor Co., Ltd., and 469 consolidated and affiliated companies in Japan and overseas.

Environmental impact data verified: Energy consumption, greenhouse gas emissions, water use, wastewater volume, waste generated, waste recycled, waste directly landfilled, waste sold for reuse,[2] atmospheric pollutant emissions (NOx, SOx), VOC emissions, 2 PRTR emissions,[2] $CO_2$ emissions from product use (scope 3, category 11[3])



**Honda Environmental Annual Report 2014**
**Independent Verification Report**

To: Honda Motor Co., Ltd.

June 10, 2014

Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) has been engaged by Honda Motor Co., Ltd. (Honda) to conduct an independent verification of its environmental data selected for inclusion in the Honda Environmental Annual Report 2014 (the Report), issued under the responsibility of Honda. The aim of this verification is to consider the accuracy of environmental data detailed in the Report and to provide verification opinion based on objective evidence.

**1. Verification Outline**

1) Environmental impact data generated through business operations in FY2013 (April 1, 2013 through March 31, 2014)

| Scope of Verification | Site Visited | Verification Methodology |
|---|---|---|
| Environmental impact Data generated through business operations of Honda and its 469 Consolidated subsidiaries and affiliates (*1) | - Honda's Head Office<br>- Honda Tochigi Factory<br>- Honda Production Planning Office<br>- Honda R&D Co.,Ltd. Automobile R&D Center<br>- Honda Auto Parts Manufacturing Co., Ltd.<br>- Honda Automobile (Thailand) Co., Ltd | - Review of documentary evidence produced by Honda's head office and the sites visited<br>- Interviews with relevant personnel of Honda's head office and the sites visited<br>- Site inspection and review of data monitoring procedures<br>- Comparison between the reported data and supporting documentary evidence |

(*1) Environmental impact data verified are Energy consumption, Greenhouse gas emissions, Water consumption / drainage, Waste generated / Landfill waste, VOC, Chemical substances and NOx / SOx.

2) $CO_2$ emissions generated through the use of products sold by Honda in FY2013 (April 1, 2013 through March 31, 2014)

| Scope of Verification | Verification Methodology |
|---|---|
| The amount of $CO_2$ emissions through the lifetime use of automobiles, motorcycles and power products (*2) | - Review of documentary evidence produced by Honda's head office<br>- Interviews with relevant personnel of Honda<br>- Comparison between the reported data and supporting documentary evidence |

(*2) more than 90% of worldwide sales as stated by Honda

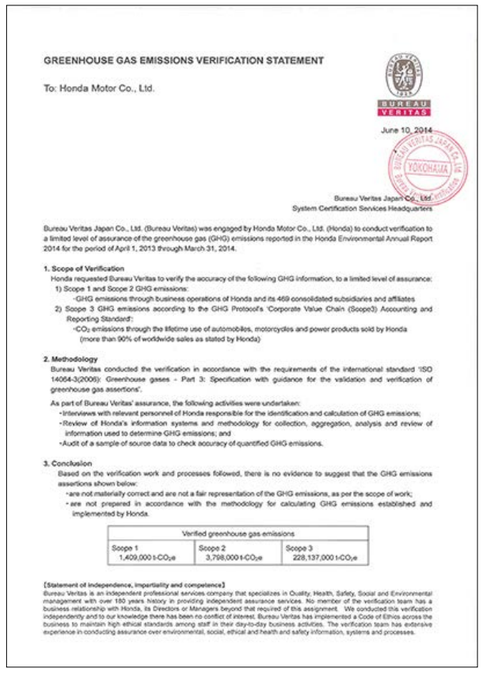
This verification was conducted using Bureau Veritas' standard procedures and guidelines for external verification of non-financial reporting, based on current best practice. Bureau Veritas refers to the International Standard on Assurance Engagements (ISAE) 3000 in providing a limited assurance for the scope of work stated herein.

**2. Findings**

1) Environmental impact data generated through business operations in FY2013
- According to the environmental impact data that Bureau Veritas verified, the information stated in the Report is consistent with the data collected and consolidated by Honda's head office.
- No significant errors were detected in the environmental data reported by sites that were not corrected to Honda's head office.

2) $CO_2$ emissions generated through the use of products sold by Honda in FY2013
There is no evidence that the $CO_2$ emissions reported by Honda
- is not materially correct and is not a fair representation of the $CO_2$ emissions data and related information.
- is not prepared in accordance with the methodology for calculating $CO_2$ emissions established and implemented by Honda.

Bureau Veritas has implemented a code of ethics across its business which is intended to ensure that all our staff maintain high standards in their day to day business activities. We are particularly vigilant in the prevention of conflicts of interest. Bureau Veritas activities for Honda are for social reporting verification only and we believe our verification assignment did not raise any conflicts of interest.



**GREENHOUSE GAS EMISSIONS VERIFICATION STATEMENT**

To: Honda Motor Co., Ltd.

June 10, 2014

Bureau Veritas Japan Co., Ltd.
System Certification Services Headquarters

Bureau Veritas Japan Co., Ltd. (Bureau Veritas) was engaged by Honda Motor Co., Ltd. (Honda) to conduct verification to a limited level of assurance of the greenhouse gas (GHG) emissions reported in the Honda Environmental Annual Report 2014 for the period of April 1, 2013 through March 31, 2014.

**1. Scope of Verification**

Honda requested Bureau Veritas to verify the accuracy of the following GHG information, to a limited level of assurance:
1) Scope 1 and Scope 2 GHG emissions:
- GHG emissions through business operations of Honda and its 469 consolidated subsidiaries and affiliates
2) Scope 3 GHG emissions according to the GHG Protocol's 'Corporate Value Chain (Scope3) Accounting and Reporting Standard':
- $CO_2$ emissions through the lifetime use of automobiles, motorcycles and power products sold by Honda (more than 90% of worldwide sales as stated by Honda)

**2. Methodology**

Bureau Veritas conducted the verification in accordance with the requirements of the international standard 'ISO 14064-3:(2006): Greenhouse gases – Part 3: Specification with guidance for the validation and verification of greenhouse gas assertions'.

As part of Bureau Veritas' assurance, the following activities were undertaken:
- Interviews with relevant personnel of Honda responsible for the identification and calculation of GHG emissions;
- Review of Honda's information systems and methodology for collection, aggregation, analysis and review of information used to determine GHG emissions; and
- Audit of a sample of source data to check accuracy of quantified GHG emissions.

**3. Conclusion**

Based on the verification work and processes followed, there is no evidence to suggest that the GHG emissions assertions shown below:
- are not materially correct and are not a fair representation of the GHG emissions, as per the scope of work;
- are not prepared in accordance with the methodology for calculating GHG emissions established and implemented by Honda.

| Verified greenhouse gas emissions | | |
|---|---|---|
| Scope 1<br>1,403,000 t-$CO_2$e | Scope 2<br>3,798,000 t-$CO_2$e | Scope 3<br>228,137,000 t-$CO_2$e |

**[Statement of independence, impartiality and competence]**

Bureau Veritas is an independent professional services company that specializes in Quality, Health, Safety, Social and Environmental management with over 180 years history in providing independent assurance services. No member of the verification team has a business relationship with Honda, its Directors or Managers beyond that required of this assignment. We conducted this verification independently and to our knowledge there has been no conflict of interest. Bureau Veritas has implemented a Code of Ethics across the business to maintain high ethical standards among staff in their day-to-day business activities. The verification team has extensive experience in conducting assurance over environmental, social, ethical and health and safety information, systems and processes.

1. Bureau Veritas Japan Co., Ltd., frequently conducts internal protocol reviews for Honda to ensure that its operations comply with the latest best practices as well as various published standards, including ISO 14064-3, an international standard on greenhouse gas emissions; AA1000, a standard used for auditing of non-financial information; the Global Reporting Initiative's G4 sustainability reporting guidelines; and International Standard on Assurance Engagement (ISAE) 3000.
2. Data from Japan only
3. Scope 3, category11 calculations cover the emissions of about 90% of all motorcycles, automobiles, and power products sold worldwide under the Honda brand name. These emissions are calculated using the following formula for each model and adding the results: $CO_2$ emissions x Annual distance traveled (for power equipment: annual usage in hours) x Product lifetime in years x Annual unit sales

## Key Indicators of Honda's Environmental Performance

CDP Global 500 Climate Change Report 2013

### 1st in Japan

In the Carbon Disclosure Project's 2013 survey[1] of Global 500 companies,[2] Honda earned the highest disclosure score among Japanese corporations. We were also among 12 leading global corporations for earning exceptionally high marks in areas related to both disclosure content and results. Furthermore, we were included in the Climate Disclosure Leadership Index (CDLI) for the third consecutive year, and was also among 56 companies included in the Climate Performance Leadership Index (CPLI), an index of companies selected for demonstrating leadership in combating climate change, in which we earned a performance score of A, the highest.

1. Carbon Disclosure Project (CDP) is an international non-profit managing the world's largest database for companies and other organizations to disclose, manage, and share information related to climate change mitigation. The group also publishes its own analysis of this data.
2. Global 500: The 500 largest companies (by market capitalization) that make up the FTSE Global Equity Index Series.

17th Nikkei Environmental Management Survey

### 4th Place

Honda ranked fourth out of 1,729 manufacturers examined in the 17th Environmental Management Survey by news publishing company Nikkei Inc.

Buna-no-Mori Environmental Survey 2013

### Rank A

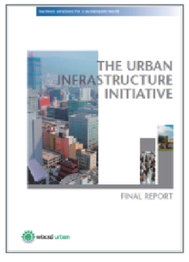
Honda earned the highest rank, rank A, in the 2013 Buna-no-Mori environmental survey by Sompo Japan Nipponkoa Risk Management Inc. and was also selected as a component of the Buna-no-Mori eco-friendly investment fund.

## Environment-Related External Relations Activities

Honda is a member of the World Business Council for Sustainable Development (WBCSD), and a member of the WBCSD's Urban Infrastructure Initiative (UII) Core Group. We took part in the UII Core Group, which released its final report on April 7, 2014, by drawing up plans for sustainable mobility infrastructure.

We also are participating in Sustainable Mobility Project 2.0.

wbcsd member




UII Final Report

Honda also conducts various external relations activities in collaboration with policy makers in each region. We advise regional and national governing bodies on how to make mobility systems environmentally responsible from a technological standpoint, partner with governments for conducting technology development projects, and serve on committees held by national government agencies.

Public-Private Partnerships:
E-Kizuna Project (Saitama Prefecture, Japan),
California fuel cell Partnership (California, U.S.), and others





## TOP MESSAGE

# Striving to realize the joy and freedom of mobility and a sustainable society where people can enjoy life

In 2010, Honda announced its direction for the decade leading up to 2020: to provide "good products to customers with speed, affordability, and low $CO_2$ emissions." The Honda Environmental and Safety Vision to realize "the joy and freedom of mobility and a sustainable society where people can enjoy life" was established based on this direction.
Providing the joy and freedom of mobility has been Honda's aim in the development of personal mobility products since its founding. The joy of mobility is not just the pleasure of driving your own car or motorcycle. It's also the excitement of making discoveries and realizing dreams through the freedom mobility provides.
Realizing a sustainable society where people can enjoy life, a more formidable challenge, will require us to focus corporate resources on addressing climate change and energy issues as top priorities.
To realize the two components of our Environmental and Safety Vision, we will lead the industry in offering outstanding environmental and safety performance with products and technologies that proudly bear the Honda name.

Photo: No. 1 Balancing Reservoir, Kumamoto Factory

## A step closer to truly globalized operations

Last year, I expressed our commitment to increasing the autonomy of Honda operations across all six regions,* and explained that this would help us adapt the structure and management of our business to the environmental rules and issues that are unique to each country and region. Much has happened since then. Last year, we launched or began construction of new, more environmentally friendly production facilities in Japan, India, China, Mexico and other countries. We started operating a wind farm in North America, and broke ground on a new wind farm in South America, with plans to complete the project by fall 2014. In Europe, we released new models equipped with cutting-edge environmental technologies, and made steady progress on business reform.
And while Japan has always functioned as a global command center, to better distinguish domestic business from global business, we launched a new headquarters for Japan Operations and separated it from the part of our organization with global management responsibilities. All of these changes will give each region greater leeway in executing their assigned roles. Organically linking these independent operations will have the effect of maximizing Honda's overall strength, and bring us that much close to being a truly globalized company.

*Honda organizes its global operations into six regions: Japan, North America, South America, Europe, China, and Asia & Oceania.
See page G02 to learn more.

## Awareness of the challenges at the start of a new three-year plan

At Honda, we strive to minimize $CO_2$ emissions and the various other environmental impacts that come from our products and business activities. These efforts are systematically outlined in a mid-term environmental action plan that is updated every three years.
For products, we are intensifying efforts to increase energy efficiency; design them for easier reduction, reuse, and recycling; give off cleaner emissions; and eliminate and responsibly manage the use of chemical substances. And for business activities, we are taking concrete steps to realize the Honda Environmental and Safety Vision based on a clear awareness of the size of impacts generated by these activities.
2014 marks the start of a new mid-term plan for environmental initiatives at Honda, and is also the midway point on our path to achieving the 2020 Product $CO_2$ Emissions Reduction Targets announced in the Honda Environmental and Safety Vision. We have thus chosen "Sustain and Strengthen" as the slogan for this critical three-year period.
In the spirit of this slogan, we have set two priority policies for the new mid-term plan: (1) to sustain $CO_2$ emissions reduction initiatives proposed in the last three-year period and leverage them for our global strategy, and (2) to strengthen environmental management across our value chain by incorporating all three scopes of corporate activity designated in the Greenhouse Gas Protocol, from upstream suppliers to downstream customers.

June 2014

Takanobu Ito

President & CEO
Chairman, Honda World Environment and Safety Committee

BLUE SKIES FOR
OUR CHILDREN





## Roundtable Meeting of the six Regional Environmental Committee Chairs

# Making the world a happier place for everyone - through our products, as a company

Honda manages its global production and sales networks through an organization divided into six regions: North America, South America, Europe, Asia & Oceania, China, and Japan. Six regional environmental committees, one for each region, set their own policies and plans for environmental initiatives based on the global direction and supervise and evaluate the divisions that carry out those plans. As Honda moves to realize truly globalized operations, how will each region tackle its own environmental challenges? The six regional environmental committee chairmen share their outlook on the coming year.

"We'll continue working to keep the air blue, the water clear and the land green."

Takuji Yamada
Honda North America
Regional Environmental Committee Chairman

## Region introductions and recent developments

**Please tell us what characterizes your region in terms of economics and the environment, and also what developments have taken place in the last year.**

Yamada: In North America, the U.S. market has been on a moderate recovery trend. Housing starts are rising and the economy is gaining back its normal strength. Honda automobile sales have also started to recover, with sales increasing year over year. On the environmental front, while North America has always been an environmentally progressive region with a keen awareness of environmental issues, a number of extreme weather events last winter hit home the fact that the global environment is changing -Niagara Falls freezing over and Georgia issuing a state of emergency because of a snowstorm, to name a few.

Mizoguchi: The South American economy has been growing steadily for the last decade with the support of increased credit, which has also pushed up sales of motorcycles and automobiles. The balance on this debt has grown too large, however, and it's starting to weigh on market growth. Environmentally speaking, one positive development was the switch last year from S50 to S10 diesel fuel, which brought the sulfur limit down to 0.001% from 0.005% and resulted in significantly cleaner exhaust gas and emissions from trucks and buses. One negative development has been the decline in rainfall in Brazil over the last years, which has driven a rise in thermal power generation despite the country's extensive hydropower infrastructure.

Mikoshiba: Europe is home to a number of key players in the automotive market and poses a challenge to foreign brands like Honda that are looking to enter or grow in the market. On top of that, the economy has been stagnant since the 2008 financial crisis; the automobile market has contracted from 16 million to 12 million units per year. These economic conditions have led people to become increasingly sensitive to the environment and fuel efficiency, accelerating the move to small turbocharged engines and diesel engines. Right now, diesel models make up more than 50% of all unit sales. Meanwhile, the toughest emission regulations in the world will go into effect in 2020, which will require us to reduce average $CO_2$ emissions per vehicle to 95 g/km.





Abe: Asia & Oceania is an extremely large region that includes more than 20 countries and region. Economic conditions vary by country, and people's awareness of environmental issues and their response to them are vastly different. Last fiscal year was a difficult time in places like India and Thailand, huge automobile markets that experienced a slowdown in economic growth. Nonetheless, we sold a record-setting 0.56 million units, thanks in part to the launch of our much-awaited fuel-efficient diesel models in India. Environmental awareness seemed to rise across Asia as a whole, with countries like Thailand and Indonesia issuing policies that favor fuel-efficient low-emission vehicles, and Malaysia moving toward incentives for foreign manufacturers to produce energy-efficient vehicles.

Kuraishi: China is the largest mobility market in the world, with automobile sales exceeding 20 million units a year. Last year, the market continued its momentum by growing more than 10%. Honda grew by more than 25%, partly because of new models introduced in the second half of the fiscal year. As for the environment, however, the air pollution problem is getting serious. The issue has become a hot topic across the country, and our customers are becoming increasingly concerned about the environment. And of course, China, like Europe, will soon issue its own CAFE regulations[1] which will be the toughest in the world.

"We're going to raise the value of our company and products by further increasing our utilization of renewable energy."

Minekawa: Japan has been implementing a series of economic policies, dubbed Abenomics, to overcome a long period of deflation that has continued since the bubble collapsed in the early 1990s. These aggressive monetary easing measures have helped to reign in a hyper-strong yen and put the economy back on a modest recovery track. At the same time, fuel prices have surged; 150 yen or more for a liter of gasoline is no long unusual. Electricity rates are also projected to rise over the long term. We got a real sense this year that more and more consumers are turning to energy-efficient and fuel-efficient products.

## Fiscal 2014 in review

**Major themes of the past year, then, include the spread of diesel technology to regions other than Europe, its main market, and the rise of environmental awareness in Asian countries. Next, please tell us how environmental initiatives fared in fiscal 2014, and any other important topics related to Honda's products or business activities.**

Yamada: In North America, the Accord Hybrid was named Green Car of the Year, and Honda was recognized by the U.S. Environmental Protection Agency for having the highest fleet-average fuel economy among 1[1] automakers for 2012 models. In production, we built two wind turbines that will supply around 10% of the annual electricity needs of our automobile transmission plant in Ohio.

Issao Mizoguchi
Honda South America
Regional Environmental Committee Chairman

1. Corporate Average Fuel Economy. Regulations that place a limit on the average fuel efficiency of all vehicles sold by an automaker

The number of dealers who started contributing to environmental conservation through the Green Dealer program also increased significantly. At the end of fiscal year, we were left with the impression that environmental awareness drove significant actions on all fronts -for the products themselves and in production and sales.

## “We’ll use a new series of products to strengthen Honda’s brand image.”

**Toshiaki Mikoshiba**
Honda European
Regional Environmental Committee Chairman

**Mizoguchi:** In South America, we sold 3 million flex-fuel[1] motorcycles, and also released flex-fuel versions of the Civic and CR-V, which for the first time at Honda don’t require a secondary tank and can start without gasoline. In logistics, we introduced the double-trailer truck, in which a single tractor truck hauls two containers, allowing us to transport twice the cargo volume using nearly the same amount of energy. And of course there is the wind power facility we are currently building for our automobile plant in Brazil. We broke ground in March 2013 and expect to complete the project in September 2014. We will have nine 3-megawatt(MW) wind turbines a total of 27 MW in generation capacity which is enough to cover all of the electricity needs of our automobile plant in Sumaré.

**Mikoshiba:** In Europe, we expanded the application of our 1.6-liter i-DTEC diesel engine, initially released in the Civic 5-door, to the CR-V and Civic Tourer, giving us our first lineup of Earth Dreams Technology[2] vehicles. In corporate initiatives, we have continued to ramp up renewable energy use in production, and have also built a system to collect and recycle used hybrid batteries. Another key topic in Europe was our participation in fuel cell vehicle projects, such as the H2Mobility project[3] in the U.K. and the Pan-European HyFive project.

**Abe:** In Asia & Oceania, we introduced in India our long-awaited Amaze and City diesel vehicles, which achieved a record over 130,000 vehicles in combined annual sales. Both have received outstanding reviews from customers, and have become a topic of discussion even inside the industry because of their high fuel economy. In Malaysia, we had the best-selling hybrid vehicle for the second year running, and have received a positive response for our decision to begin localized hybrid production ahead of our competitors. For motorcycles, we installed electronic fuel injection (FI)[4] in all production models in Indonesia, the second country after Thailand where we’ve achieved this. And in India, Malaysia, and Indonesia, we began operations at new automobile plants fitted with the latest environmental technologies for reducing $CO_2$ emissions.

1. A vehicle that can run on varying proportions of more than one type of fuel, in this case gasoline and bioethanol.
2. A next-generation powertrain series that greatly enhances both driving performance and fuel economy, building on advancements in environmental performance for internal combustion engines, transmission efficiency, and electromotive technologies to pursue a joy of driving unique to Honda.
3. A partnership of UK industry leaders and central and local governments, working to make hydrogen-fueled transport a reality.
4. Programmed Fuel Injection (PGM-FI)





**Kuraishi:** In China last year we introduced the new Accord, Crider, and Jade. Going forward we will further expand the Earth Dreams Technology series to improve fuel efficiency and continue meeting market needs. Expanding our green vehicle lineup, including hybrid vehicles, will be a critical factor in meeting China’s CAFE regulations. That’s why we started using the name FUNTEC to designate Honda’s advanced environmental and safety technologies and succinctly express the idea that Honda engines are both fuel efficient and fun to drive. Since environmental regulations in China are getting tougher on motorcycles as well, last year we started considering ways we can provide FI at lower costs. This will help us stay ahead of the competition in terms of having the highest FI adoption rate.

**Minekawa:** The biggest topic in Japan last year was the opening of our new Yorii Plant. The plant started operations at the forefront of production worldwide, cutting per-unit $CO_2$ emissions by 30% compared to existing Honda plants. For products, we rolled out hybrid and plug-in hybrid models of the Accord amidst a growing consumer preference for green cars. The new Fit Hybrid’s outstanding fuel performance of 36.4 km/liter also drew attention. I think we made a big step forward as a company by delivering products that met the market’s expectations regarding fuel efficiency as it trended toward smaller cars. Another big achievement was capturing new market needs through the launch of the environmentally advanced Dunk 50 cc-class scooter, and a new two-stage snow blower with FI technology.

## “We need to demonstrate environmental leadership in all aspects of our business.”

### Future initiatives and aspirations

**Thank you very much. Lastly, as Honda moves toward truly global operations, please tell us the direction your region is headed and what aspirations you have for tackling environmental issues.**

**Yamada:** This is not limited to North America of course, but Honda has always developed products with a focus on fuel efficiency and environmental performance. Honda was the first to meet the requirements of the U.S. Clean Air Act for automobiles, and was also the first company to introduce four-stroke engines for motorcycles and power equipment. Honda’s mobility lineup today runs the entire gamut of possibilities from on road to off-road, to over the water and through the air. It’s probably safe to say that Honda can take you anywhere you want to go. We went even further last March when we opened up a concept home in the U.S. called Honda Smart Home. That project is an experiment to see if we can use Honda technologies to also help preserve the environment in the places we all live. We all know that the Earth is blue when seen from space. To keep the air blue, the water clear, and the land green, it’s important that we create products that are environmentally responsible in all aspects of our business.

**Noriaki Abe**
Honda Asia & Oceania
Regional Environmental Committee Chairman

We're committed to being a company that thrives on contributing to a beautiful world for future generations.

**Mizoguchi:** In South America this year, we plan to eliminate the secondary tank from all flex-fuel automobiles. We will also add fuel injection to more low-emission motorcycles. Once our wind power facility starts operating in September and succeeds as a business, we will start looking into expanding this project to our motorcycle plant in Manaus, Brazil. This plant is already equipped with cutting-edge wastewater treatment facilities, so the use of renewable energy in this plant will shrink its environmental footprint even further. When you consider these initiatives, South America has the highest proportion of renewable energy utilization of all regions in Honda's global operations. In other words, Honda is doing some amazing things to conserve the environment in South America, but not many people know this to be the case, even people within Honda. We're going to make sure everyone knows about our initiatives, and raise the value of our company and products.

## "We will promote our FUNTEC campaign so customers can easily recognize Honda's environmental and safety technologies."

**Seiji Kuraishi**
Honda China
Regional Environmental Committee Chairman

**Mikoshiba:** The economic environment in Europe will remain challenging, so the first item on our agenda is to make sure more customers benefit from our Earth Dreams Technology series. We will also do everything we can to promote the new series of products that will be coming out, such as the Civic Type R and NSX, two models that symbolize Honda's efforts to evoke a sporty and advanced image in Europe; the Jazz (sold as Fit in Japan), a globally strategic model; and the European version of the diesel-equipped Compact SUV (sold as Vezel in Japan). We also plan to re-enter Formula One racing competition starting next year. F1 has incorporated hybrid technology into its engine regulations, so we can expect environmental technologies to play a larger role in competition going forward. F1 can also have an incredible influence on the value of a company's brand in Europe, so we'll push hard to promote Honda's brand image. We're hoping to pioneer initiatives that fit Honda's reputation as an environmental leader.

**Abe:** Likewise in Asia & Oceania, we need to continue improving our environmental performance from the standpoint of being a company society wants to exist. As the automobile market expands with the rise of the middle class, we need to demonstrate environmental leadership in all aspects of our business. One way we can do that is by making all Honda gasoline vehicles compliant with Euro 4 or higher before our rivals. So it's important that we use our popular diesel models and CNG vehicles to fully communicate Honda's ambitions regarding fuel economy and the environment. As the world's leading manufacturer of motorcycles, we will expand the all-FI campaign we started in Thailand and Indonesia to Vietnam, and also include our Idling Stop System in all major scooter models. We also hope to enhance our presence in the rapidly growing Indian market, and maintain our lead in providing fuel-efficient bikes by introducing more low-friction technologies.





**Kuraishi:** A major task in China will be to see how quickly we can meet the world's toughest environmental regulations. I myself live in Beijing, so I personally understand the significance of air pollution caused by fine particulate matter and yellow dust. Awareness of these issues will only get stronger. That said, tackling environmental issues is what Honda does best. We should see the current state of affairs as an opportunity, and try various things to resolve them. The first thing we can do is use hybrid and turbocharging technologies to provide better fuel economy along with fun driving performance, and be the first company to meet China's CAFE regulations. To do that, we will continue to promote our FUNTEC campaign so customers can easily recognize Honda's hybrid and other environmental and safety technologies. Honda's environmental slogan, "Blue Skies for Our Children," fits China perfectly. Realizing this slogan in a place with such horribly polluted air would be a dream come true. This idea will inspire us to keep pressing forward.

## "Japan must continue to stand out and play a vital role in Honda's global business"

**Minekawa:** Honda is increasing the autonomy of each region in order to accelerate operations and become a more competitive company worldwide. As part of this effort to realize truly globalized operations, we launched a new headquarters for Japan Operations last April. Honda was raised by Japan into a globally competitive corporation. We believe the new headquarters is the perfect way for Japan to operate so that it continues to stand out and play a vital role in all aspects of Honda's global business. That means Japan needs to lead the world and stay at the cutting edge of environmental technology as well. For example, we want to be the first to offer a solution to the recycling of used lithium-ion batteries from hybrid vehicles. When the world comes to us with problems, we want to have answers. In that spirit, let's keep moving forward, one step at a time.

You've offered some inspiring messages as chairmen of the regional environmental committees and Chief Operating Officers of each region. Thank you.

**Sho Minekawa**
Honda Japan
Environmental Committee Chairman

# SPECIAL

## Environmental Frontrunner Yorii Plant Starts Production!

Saitama Factory's new Yorii Plant, the first Honda automobile assembly plant to be built in Japan in 23 years, started production on July 9, 2013. Specially engineered for building compact models such as the Fit and Vezel in partnership with the nearby Engine Plant, the Yorii Plant is one of the world's most energy-efficient plants. As a global pioneer in sustainable manufacturing, its innovative production technologies make it one of only a few plants that serve as a launch pad for transmitting environmental technologies to Honda factories around the world.

To reduce environmental impacts from production, we focus on conserving energy and resources and achieving zero waste and emissions through our "green factory" initiative. The new Yorii Plant, one such green factory, has been equipped with a vast array of cutting-edge technologies to achieve these goals.

### • Stamping: 40% higher production efficiency

Four high-speed servo stamping presses and a synchronized transport system for conveying workpieces between the presses make up the Yorii Plant's highspeed, high-throughput sequential stamping line. This line works at up to 20 continuous strokes per minute, twice the speed of conventional presses

High-speed servo stamping press

CO₂ E W

### • Welding: 70% lower $CO_2$ emissions

Hemming, or the welding together of inner and outer panels to make closure parts such as doors, is carried out using a new roller hemming method. Using this method in place of large conventional hemming presses has saved space, lowered costs, and cut $CO_2$ use by 70%.[1]

Roller hemming method

CO₂ E W

### • Coating: Industry-first technology saves resources, cuts emissions

Honda S.E. Paint eliminated the need for a middle coat

The introduction of a new proprietary coating technology called Honda Smart Ecological Paint (Honda S.E. Paint) and a wall -mounted painting robot system has shortened the coating process from the conventional 4-coat/3-bake method to a 3-coat/2-bake method.[2] These innovations helped shorten the coating line by 40% and cut $CO_2$ emissions by 40%.[1]

CO₂ E W

### • Coating: New air-recycling technology introduced

Instead of a conventional water washing system, the dry spray booth used to paint car bumpers employs a dry filter system and a calcium carbonate adsorbent called a pre-coat layer to collect

1. Relative to Saitama Factory's Sayama Plant in Japan.
2. For example, a 4-coat/3-bake process uses four coats of paint and three drying steps. Therefore, a 3-coat/2-bake process saves one paint coat and one drying step.

CO₂ E W In this report, specific measures, activities, products, and technologies that contribute to realization of the Triple Zero concept are indicated with one or more of three Triple Zero symbols. See page G22 for details.







Dry spray booth installed for bumper coating

overspray. This eliminated the need to dehumidify the process air when recycling it, resulting in a 42% reduction in $CO_2$ emissions,[1] and also made it possible to recycle the adsorbent—a world first. [2]

CO₂ E W

### • Reducing energy waste from compressed air

The Yorii Plant has taken various steps to reduce the amount of energy used to produce compressed air for vehicle assembly processes. These steps include making sure air supply is stopped during nonproduction times, using leak - resistanthose joints to reduce pressure loss, and monitoring air consumption for each process.

Leak-resistant hose joint (left) and assembly work using compressed air (right)

CO₂ E W

### • Corporate park dramatically improves transport efficiency

The Yorii Plant was built with a corporate park for suppliers to produce and process parts for Honda automobiles on site, a smart alternative to having suppliers produce and process parts remotely and transport them to the Honda plant for assembly. The elimination of secondary processing sites and relay points for distribution has resulted in a dramatic improvement in transport efficiency and is expected to yield a 500-ton reduction in annual $CO_2$ emissions.

A corridor passing through the Yorii Corporate Park. Behind the partitions on both sides are work areas designated for Yorii Automobile Plant suppliers

CO₂ E W

### • Super-high-efficiency cogeneration system

To cut down on fossil fuel-generated utility power and reduce $CO_2$ emissions, the Yorii Plant was fitted with an 8.7 MW natural gas-powered cogeneration system. This has resulted in a 45% reduction in peak power. By using the steam, hot water, and waste-heat byproducts, the plant also aims to achieve a combined electrical and thermal energy efficiency of 85%.

CO₂ E W

### • Largest solar array for an automobile plant in Japan

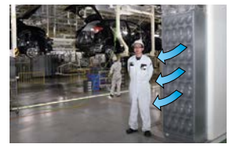
2.6 MW solar array

Photovoltaic panels installed on the Yorii Plant's roof have a total generation capacity of 2.6 MW—the largest of any automobile plant in Japan.[2] This is enough electricity to power about 460 typical Japanese homes,[3] and translates into an annual reduction of 1,200 t-$CO_2$ when compared to using the same amount of powerfrom the grid.

CO₂ E W

### • Energy-saving displacement ventilation

The Yorii Plant's displacement ventilationsystem uses the buoyancy of heated air inside the plant to drive air distribution.



Air diffuser installed on the lower end of a pillar inside the factory

This reduces the amount of energy needed for ventilation while also conditioning the lower spaces occupied by workers more efficiently, realizing a 40% reduction in energy use, or 2,360 t-$CO_2$ annually.

CO₂ E W

### • Factory energy management system

The Yorii Plant's factory energy management system (FEMS) measures energy consumption in each area of production in real time. This allows energy to be optimally controlled and delivered reliably to all machinery by automation technology, and enables production workers to more quickly discover and resolve issues and sources of waste, making it possible to manage $CO_2$ emission reductions from energy use throughout the plant.

CO₂ E W

FEMS is used for centralized energy management of the entire plant (right: FEMS control screen)

### • Next-generation technologies from Yorii to the world

As the above examples illustrate, the Yorii Plant was equipped with some of the most advanced and environmentally responsible production technologies in the world. Introducing these innovations has allowed Honda to achieve a 30% reduction in energy use per automobile produced compared to a conventional Honda automobile plant.[5] To realize our vision of producing low-impact products at lowimpact factories, we will transfer an increasing number of the next generation production and environmental technologies developed at the Yorii Plant to our production operations worldwide.

**Yorii Automobile Plant technologies are shared with other Honda factories around the world**


Roughly 34% of the Yorii Plant site is devoted to life-harboring land and wetland, including around 16,000 m² of biotope. See Honda Environmental Report 2013 to learn more about the Yorii Plant's community and environmental conservation initiatives.

1. Relative to Saitama Factory's Sayama Plant in Japan.
2. Honda internal data
3. Honda estimate (ordinary household electricity use: 5,650 kWh annually, $CO_2$ emission factor: 0.464 t-$CO_2$/MWh, Tokyo Electric Power Co., Ltd. FY2011)

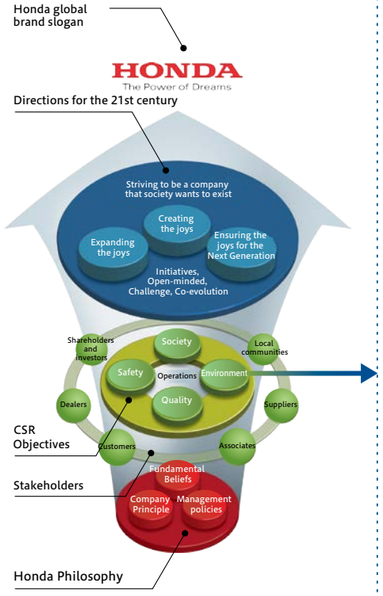
# GLOBAL REPORT
## 01. DIRECTION



## THE ROAD TO A HEALTHIER ENVIRONMENT

In striving to be a company society wants to exist in the 21st century, we view environmental stewardship as a key social responsibility alongside safety and quality. By setting clear objectives and advancing concrete environmental initiatives in line with the Honda Environment Statement and Honda Environmental and Safety Vision, we will work to exceed the expectations of our customers and society.

### Honda's approach to environmental initiatives




**Honda's approach to CSR**

Propelled by the Honda Philosophy, we set our course on being a company that society wants to exist by sharing joys with people throughout the world.

(1) Based on our basic goal of reducing environmental impacts at every stage in the life cycle of our products, we (2) strive to realize the joy and freedom of mobility and a sustainable society where people can enjoy life. We (3) recognize climate change issue and energy issue as the greatest challenge to our business, resource issue as a major challenge, and biodiversity as a serious concern. We established (4) a future vision to achieve zero $CO_2$ emissions, zero energy risk (through our energy management technologies), zero waste to tackle these challenges, and announced and are now implementing concrete measures to do this (5) for our products and (6) in our business activities.

**1. Honda Environment Statement**

**2. Honda Environmental and Safety Vision**
**Realizing the joy and freedom of mobility and a sustainable society where people can enjoy life**

BLUE SKIES FOR OUR CHILDREN
Honda global environmental symbol

**3. Assessment of environmental issues**

| Greatest challenges | Major challenge | Concern |
|---|---|---|
| Climate change issue<br>Energy issue | Resource issue | Biodiversity |

**4. Honda's vision for future operations**

Triple ZERO

Zero $CO_2$ emissions using original renewable energy

$CO_2$ Emissions
Energy Risk
Waste

Zero energy risk
Zero waste

**5. Product-based initiatives**

HEPS
Honda Environmental Performance Standard
Hi Efficient Products
Innovative Products
Revolutionary Products

**6. Operations-based initiatives**

## Honda Environment Statement

Honda has endeavored to solve environmental problems since the 1960s. We introduced the Compound Vortex Controlled Combustion (CVCC) engine, becoming the world's first automaker to comply with the 1970 U.S. Clean Air Act—a challenge thought by many at the time to be insurmountable. In 1992, we released the Honda Environment Statement to articulate the basic stance we had developed until that time to reduce environmental impacts at every stage in the life cycles of our products. Today, this Honda Environment Statement is the foundation upon which we carry out all of our environmental efforts.

### 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

## Honda Environmental and Safety Vision

We announced that our direction in the years leading up to 2020 would be to provide "good products to customers with speed, afford ability, and low $CO_2$ emissions." We dreamed of a society where everyone can safely and confidently go anywhere and the Honda Environmental and Safety Vision was set. The vision expresses our passionate desire to contribute to the sustainable growth of society and harmony between people so that we can continue to deliver excitement through products and services that support personal mobility and a better life in general.

### Honda Environmental and Safety Vision

Realizing the joy and freedom of mobility
and a sustainable society where people can enjoy life

In working to achieve this vision, the following objectives shape our environmental initiatives around the world:

- At each stage of a product's life cycle (products, corporate activities), Honda aims to
  - Minimize the use of fossil fuel and resources newly recovered from the Earth
  - Minimize environmental impacts, including greenhouse gas emissions
- Honda aims to reduce to zero greenhouse gas emissions from Honda products used for mobility and in people's everyday lives

BLUE SKIES FOR OUR CHILDREN

We established "Blue Skies for Our Children" as a global environmental slogan expressing our commitment to do more to realize our environmental and safety vision. The graphic on the left symbolizes the global environmental slogan





# PURSUING THE HONDA ENVIRONMENTAL AND SAFETY VISION

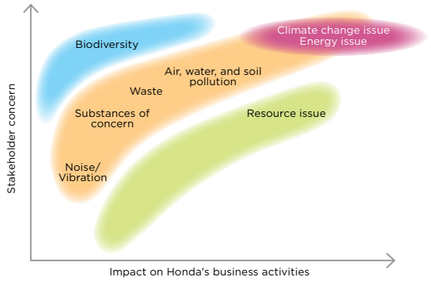
In working toward the Honda Environmental and Safety Vision, we objectively assess current environmental problems, analyze the kinds of risks and opportunities they represent for our business, and respond in various ways. We are promoting environmental initiatives in both business activities and product development, with the aim of eventually becoming a company with zero environmental impact.

## Assessment of Environmental Issues and Current Recognition of their Importance

**• Assessment from a global perspective**

To ensure the long-term continuity of our global business, we at Honda consider it essential to contribute to the growth of society and harmony between people and nature through the realization of the Honda Environmental and Safety Vision. To realize this vision, we must correctly assess the environmental issues that exist in the world today, as well as their impact on our business, and then adequately respond to them.
Accordingly, we have evaluated various environmental issues from two perspectives—stakeholder concern and impact on Honda's business activities—and identified issues that pose the greatest risk to our stakeholders and business.
As a company supplying mobility products, we see climate change and energy issues as the greatest environmental challenges we face, followed by resource issues. We also recognize biodiversity as an issue warranting serious concern.

Honda's assessment of environmental issues from a global perspective




**• Assessment process Collection**

To reach our current recognition of today's environmental issues, we first gathered information on environmental issues through interviews with stakeholders and by electronic means from within the company.

**Analysis**
Next, through discussions among divisions in the company (the executive officers, environmental divisions, regional operations, business operations, and functional operations) and dialogue with stakeholders, we analyzed the relationship between the issues and the Honda Environmental and Safety Vision, and the consistency between the issues and Honda's corporate philosophy. We then selected environmental issues of relatively high importance.

**Evaluation**
We comprehensively evaluated the selected environmental issues based on causal proximity, economic impact, urgency, influence on Honda's competitive strength, priority in relation to realizing the Honda Environmental and Safety Vision, degree of social concern, and other factors.

**Priority setting**
Finally, we determined the priority of the environmental issues along the two axes of stakeholder (social) concern and impact on Honda's business activities. We classified environmental issues into three categories (issues closely related to stakeholder expectations, issues closely related to Honda's business issues, and those closely related to both) to define Honda's current recognition of environmental issues.

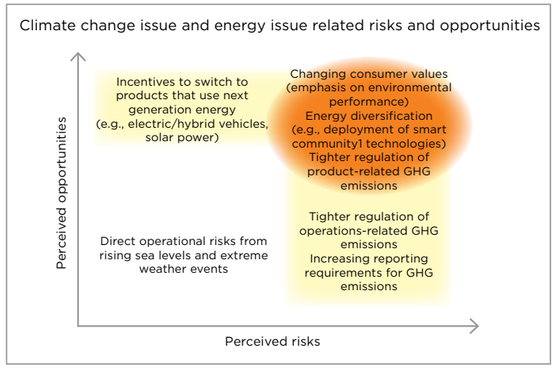
**• Assessment from a regional perspective**

We arrived at our current recognition of environmental issues, detailed above, by evaluating their importance in each of the six regions where we operate (North America, South America, Europe, Asia & Oceania, China, and Japan) and viewing them holistically from a global perspective. Regional assessments of these issues are described in the annual environmental reports issued by each region.

## Assessment of Risks and Opportunities Relating to Environmental Issues

**• Climate and energy-related risks and opportunities**

While environmental issues pose risks that could seriously impact our business activities, they also present opportunities to create and expand new business—as long as we anticipate and appropriately respond to them. We see climate change and energy issues as our greatest challenges. To engage in business activities while sufficiently assessing the risks and opportunities these issues present, we have set degrees of priority for responding to them. As a result, we identified changing consumer values, diversification of energy, and tighter regulation of product-related greenhouse gas (GHG) emissions as three areas where our response is particularly important.




### Changing consumer values

As climate change and energy issues escalate globally, consumers are becoming increasingly conscious of fuel efficiency, $CO_2$ emissions, and other environmental performance indicesas factors influencing their purchasing decisions.
We perceive such changes in consumer values and market needs as a risk and have created the Honda Environmental Performance Standards (HEPS) to respond and take advantage of opportunities for business expansion. We are driving the development of fuel efficiency technologies, electromotive technologies, and other environmental technologies and expanding their application in our products, with the ultimate goal of realizing zero product $CO_2$ emissions.

### Energy diversification

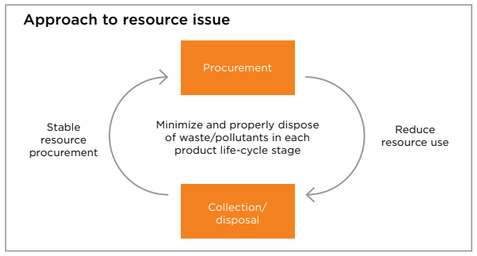
Global warming, resource depletion, and other issues will likely compel society to shift from its heavy dependence on fossil fuels toward a more diverse energy mix.
To seize new business opportunities and avert risks posed by a delayed response to energy diversification, we are advancing development of products that utilize alternative energy sources, such as EVs, FCEVs,[2] and the Honda Smart Home System (HSHS).
We are also promoting energy diversification by actively introducing large-scale solar and wind power generation at our facilities, as we work toward ultimately reducing our energy risk to zero.

### Tighter regulation of product-related GHG emissions

As regulations of product-related GHG emissions grow more stringent worldwide, Honda as a global corporation must provide products that meet local regulatory rules while also effectively meeting market needs.
We are seizing new business opportunities and responding to the risk posed by these tightening regulations by actively expanding our lineup of products powered by Earth Dreams Technology,[3] among other initiatives.

**• Resource scarcity-related risks and opportunities**

Honda sees resource issues as the greatest environmental risk after climate change and energy issues.
The depletion and resulting difficulty of obtaining rare metals and other resources used in our products poses a huge risk to our business continuity.
In response, we are promoting stable procurement and effective utilization of resources by reducing our use of rare metals, developing alternative technologies, and developing material recycling technologies to extract rare earth metals from used products and reuse them as raw material.
Through this we are aiming for stable business operations and to create opportunities for business expansion. We are also aware of the various risks associated with collection, disposal, and recycling.




**• Biodiversity**

We recognize the impacts our products and business activities can have on biodiversity, and believe that minimizing these impacts is the greatest contribution to biodiversity we can make. This awareness challenges us to develop more environmentally responsible technologies and make continuous improvements to the environmental performance of our operations (see page 29).

**• Environmental management system**

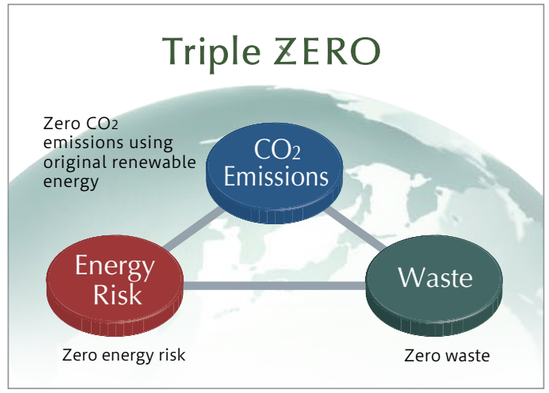
We have constructed a comprehensive global management system that allows us to continually collect information and update our understanding of these environmental issues and the risks and opportunities they present; to organize and analyze in a timely manner the impacts of these issues, particularly climate change and energy; and to develop and execute specific measures for addressing them (see page 29). Our risk management process, which we conduct every six month and as needed, is as follows:
The Honda World Environment and Safety Committee identifies risks and opportunities from a global perspective and analyzes them from three different perspectives: by product categories (motorcycles, automobiles, and power products), with a focus on our business and product development operations; by region, which is based on our unique regional management structure; and by function, such as production and sales. Our regional environmental committees, business operations, and functional operations then use the findings of this analysis to formulate various management policies and strategies, such as our mid-term plans for environmental initiatives.

1. Smart communities: Communities that, through broad partnerships between governments and private entities in the fields of next-generation energy infrastructure, telecommunications, traffic systems, and various products and services, are engineered to be more efficient, self-sustaining, and dynamic.
2. EV: electric vehicle. FCEV: fuel cell electric vehicle
3. A next-generation powertrain series that greatly enhances both driving performance and fuel economy, building on advancements in environmental performance for internal combustion engines, transmission efficiency, and electromotive technologies to pursue a joy of driving unique to Honda.





## Triple Zero: Toward a zero-impact society




**• Giving shape to the Honda Environmental and Safety Vision**

To realize the Honda Environmental and Safety Vision and ultimately play a key role in the creation of a zero-impact society, we will leverage our proprietary technologies and business activities to combat climate change, energy issues, and resource issues. We formulated the Triple Zero concept as an expression of these goals in more substantial terms.

**• Zero $CO_2$ emissions using renewable energy**

We are addressing climate change by shifting to renewable energy with the aim of achieving zero $CO_2$ emissions from our products and business activities. We are steadily lowering $CO_2$ emissions by improving existing technologies while expanding our use of renewable energy and developing new zero-emission technologies for the future. As an interim objective, we are currently working to achieve our 2020 Product $CO_2$ Emissions Reduction Targets (see page 30) to lower average emissions per unit of motorcycles, automobiles, and power products worldwide by 30% from the 2000 base-year level. We will then aim to cut total company emissions in half by 2050.
Initiatives currently under way in each product area include expanding our lineup of HEPS-compliant Hi Efficient Products,1 developing and promoting market penetration of electric vehicles (EVs) and fuel cell electric vehicles (FCEVs), and building the infrastructure for EVs to be powered by solar, wind, and other renewable energy sources. We are also reducing the carbon intensity of our manufacturing operations. The recently completed state-of-the-art Yorii Plant at the Saitama Factory uses 30% less energy per unit than conventional plants.

**• Zero energy risk**

We are addressing energy issues by diversifying energy sources used in our products and business activities with the aim of completely eliminating energy risk from fossil fuels. We have set an interim target to establish technologies that diversify home energy sources and reduce $CO_2$ emissions from personal mobility and home living to half of 2000 levels. We are developing the Honda Smart Home System (HSHS) to help us realize this goal (see page 35).
Other product-related initiatives include expanding our line-up of Innovative Products and Revolutionary Products,[1] products designed with the dual aims of achieving zero $CO^2$ emissions and reducing energy risk.
We are also introducing renewable energy to diversify the energy resources used by our operations, including the scheduled start of operations in 2014 of a wind farm[2] expected to generate 85,000 MWh of electricity per year and cover all of the power needs of the automobile plant of Honda Automóveis do Brasil Ltda. in South America.
In Japan, we plan to take steps to reduce the environmental impact of our business activities by entering the electricity retail business to diversify our energy procurement sources. This will reduce our energy risk and enable us to select power sources with smaller carbon footprints.

**• Zero waste**

We are addressing resource issues by striving to close the loop on all materials and recycle them completely, eliminating waste altogether. Initiatives directed toward this goal include developing alternatives to precious resources; developing and refining technologies to enable increased reduction, reuse, and recycling (3Rs); and reducing water use. Moreover, by realizing continuous reductions in the use of substances of concern, we will aim to eliminate all environmental pollutants from our products and business activities.
As an interim target in Japan, we are working to maintain a minimum 70% automobile shredder residue (ASR) recycling rate and raise the motorcycle recycling rate to at least 95% by 2015. Specific initiatives currently underway are aimed at developing recycling technologies and systems to promote recycling.
We are building a system, for example, to extract and reuse rare earth metals from nickel-metal hydride batteries used in hybrid vehicles.

Triple Zero symbols
In this year's report, technologies, products, and initiatives that contribute to the realization of Triple Zero are marked with one of three Triple Zero symbols.


1. Products that are compliant with the Honda Environmental Performance Standards (HEPS). Hi Efficient Products are HEPS-compliant products that emit less $CO_2$ through improved internal combustion engine efficiency. Innovative Products emit less $CO_2$ because they use an environmentally innovative technology or alternative energy source. Revolutionary Products reduce or eliminate $CO_2$ emissions by harnessing renewable energy sources or facilitating total energy management (see page 26).
2. Nine 3-MW wind turbines (27 MW in total)  internal combustion engines, transmission efficiency, and electromotive technologies to pursue a joy of driving unique to Honda.

## Reducing Environmental Impact from Products

**• Reducing $CO_2$ emissions in three stages**

To achieve zero $CO_2$ emissions, one of the three objectives of Triple Zero, our aim is to eliminate the life-cycle emissions (emissions from all stages in the life of a product, from its manufacture using raw materials, to customer use, to disposal) of all Honda products, including through strategies such as renewable energy carbon offsets.
However, given that many mobility products today still run on fossil fuel burned in an internal combustion engine, zero $CO_2$ emissions is not something we can achieve immediately. That is why we have developed three scenarios to guide us through steady reductions, ending with the complete elimination of $CO_2$ emissions. These scenarios, which are to be pursued in parallel, are: 1) Reducing emissions through efficiency improvements of internal combustion engines, 2) Reducing emissions by environmentally innovative technologies and introducing energy-diversification, and 3) Eliminating emissions through the use of renewable energy and total energy management (see figure below).

**• Honda Environmental Performance Standards**

To move our products along these scenarios, in 2011 we established the Honda Environmental Performance Standards (HEPS), an independent product classification and certification system designed to shed light on how Honda products are contributing to achievement of the three scenarios outlined above. Under HEPS, products are grouped into three categories, each with its own requirements for certification.
By making all new Honda products compliant with one of the three standards, we will make steady progress toward realizing zero $CO_2$ emissions.

HEPS Hi Efficient Products

Products that emit less $CO_2$ emissions because of improved internal combustion engine efficiency. This category includes products that incorporate technologies for improving fuel combustion and transmission efficiency and reducing friction between engine parts.

Compliance is determined based on how well a product reduces or helps reduce $CO_2$ emissions during use compared to preceding models.

HEPS Innovative Products

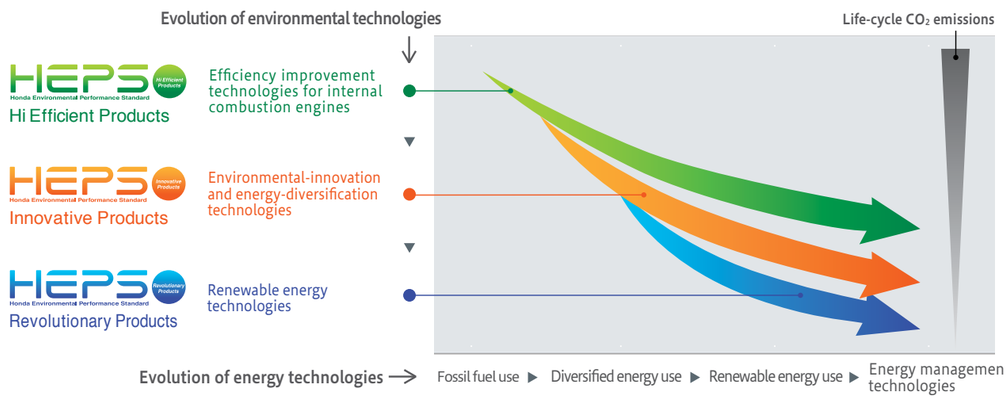
Products that emit less $CO_2$ because they use an environmentally innovative technology or an alternative energy source. This category includes motorcycles that incorporate Honda's patented Idling Stop System, automobiles that incorporate hybrid technologies or direct-injection engine technologies, and power products with electronic fuel injection (FI). Alternative-energy technologies include motorcycles and automobiles that can run on ethanol, and power products that can run on gaseous fuels.

Compliance is determined based on how well a product reduces or helps reduce $CO_2$ emissions during use compared to preceding models.

HEPS Revolutionary Products

Products that reduce or eliminate $CO_2$ emissions by harnessing renewable energies or facilitating total energy management. This category includes products that incorporate electromotive technologies or technologies for generating or using renewable energy.

**Product-based scenarios addressing climate change issue and energy issue**








## HEPS-compliant models in FY2014

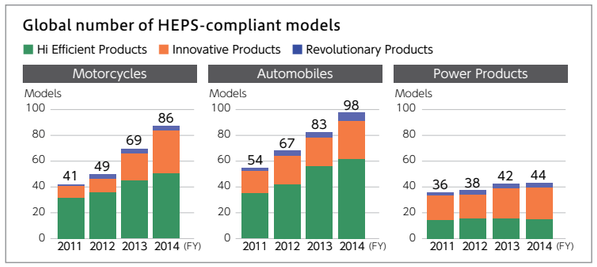
**• 34 HEPS-compliant models released in FY2014**

We reviewed products to understand how many met the HEPS requirements. In fiscal 2014, 17 motorcycles models, 15 automobile models, and 2 power products—a total of 34 models—were HEPS-certified.
Cumulatively, this brings the number of HEPS-compliant products to 86 motorcycle models, 98 automobile models, and 44 power product models, or 228 models in total. By region, 76 models in Japan, 57 models in North America, 65 models in Europe, 32 models in South America, 73 models in Asia & Oceania, and 27 models in China are now HEPS-certified.

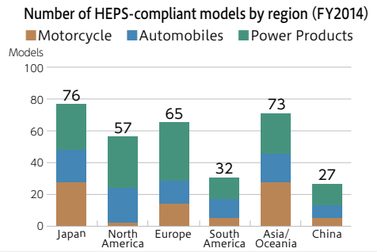
**Examples of HEPS-compliant models in FY2014**

| | | Hi Efficient Products | Innovative Products | Revolutionary Products |
|---|---|---|---|---|
| Definition | | Products with a more efficient internal combustion engine that emits less $CO_2$ | Innovative environmental technologies or unconventional energy sources that emit less $CO_2$ | Products designed to reduce or eliminate $CO_2$ emissions by harnessing renewable energies or facilitating total energy management |
| Performance parameter | | $CO_2$ emissions from product use | | |
| Compliant products (examples) | Motorcycles | Super Cub C50, Dunk, CBR125R, Zoomer-X | NC750S, Sh mode, CBR400R, Air Blade | EV-neo, Kushi |
| | Automobiles | VEZEL, BRIO AMAZE (diesel), City, Civic Tourer | Fit Hybrid, Accord Hybrid, RLX Sport Hybrid SH-AWD, CR-V Flex | Fit EV, FCX Clarity |
| | Power Products | GX390 engine, GX690 engine | EU9iGP LPG generator, EU7000is generator with FI, Salad CG FFV300 gas-powered tiller, HSL2511 snow blower with FI | Graspa HRE330 electric lawnmower, Monpal ML200 scooter, Miimo300 robotic lawnmower |

**Global number of HEPS-compliant models**




**Number of HEPS-compliant models by region (FY2014)**




*FY2011 data were calculated based on standards set in FY2012.

## Reducing Environmental Impact from Products

• Reducing impacts across product life cycles

In order to realize our Triple Zero concept -to reduce to zero all environmental impacts stemming from our products -we need to minimize environmental impacts throughout the life cycles of our products. This means not only reducing impacts that occur during use, through improved fuel efficiency and the use of electromotive technologies, but also lowering impacts that arise from raw material procurement, product transportation,disposal of end-of-life products, and so forth. Based on this concept, we are striving to reduce environmental impacts in every domain of our operations.

In Japan, for instance, we categorize business activities into eight domains and consider all factors in each domain that impact the environment. Each domain sets its own policies and targets to reduce impacts, and implements measures to achieve them.

**Eight domains of business activities in Japan**


**Reduce environmental impacts from business activities in Japan**

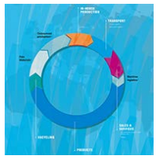
| Business activities | Factors believed to impact the environment | Major initiatives |
|---|---|---|
| Product development | Greenhouse gases<br>Exhaust emissions<br>Raw materials Noise/Vibration<br>Substances of concern | - Promote "green laboratories"<br>• Energy and resource conservation<br>• Zero waste and emissions1 initiatives |
| Purchasing | Greenhouse gases<br>Raw materials<br>Waste Water use/Wastewater<br>Exhaust emissions<br>Noise/Vibration<br>Substances of concern | - Promote "green purchasing"<br>• Environmental management<br>• Energy and resource conservation at suppliers<br>• Zero waste and emissions[1] activities at suppliers |
| Production | Greenhouse gases<br>Raw materials<br>Waste Water use/Wastewater<br>Exhaust emissions<br>Noise/Vibration<br>Substances of concern | - Promote "green factories"<br>• Environmental management<br>• Energy and resource conservation<br>• Zero waste and emissions[1] initiative |
| Transportation | Greenhouse gases<br>Waste | - Promote "green logistics"<br>• Environmental management<br>• Increase transportation efficiency<br>• Use less packaging |
| Sales and Service | Greenhouse gases<br>Removed parts<br>CFCs<br>Waste | - Promote "green dealers"<br>• Environmental management<br>• Increase energy efficiency<br>• Take action to promote environmental conservation |
| Product recycling (3Rs) | Greenhouse gases<br>End-of-life products | - Increase parts collection, reuse, and recycling<br>- Properly process end-of-life products<br>- Provide technical support for recycling |
| Administration | Greenhouse gases<br>Waste | - Promote "green offices"<br>• Environmental management<br>• Energy conservation<br>• Use resources effectively |
| IT | Greenhouse gases | - Promote "green ICT"<br>• Environmental management<br>• Energy conservation |

**Global initiatives**

We strive to reduce the environmental impacts of our business activities worldwide. As in Japan, we categorize overseas business activities into several domains and set each region's policies and targets for reducing product life-cycle impacts based on market characteristics and other local conditions. Each region's initiatives are reported in its own regional annual environmental report. The domains of each region's business activities in fiscal 2014 are shown below.


North America


South America


Europe

Asia & Oceania


China

1. The aim of zero emissions initiatives is to reduce waste and substances of concern as near as possible to zero.





# BIODIVERSITY INITIATIVES

Climate change issue and energy issue are not our only concerns. We also pay close attention to biodiversity as an issue relating to environmental conservation, because our business activities can have an impact on vital natural resources. Tree-planting and water-recycling initiatives at our plants in the 1960s, and our Community Forest program launched in 1976, demonstrate the deep roots of our commitment to environmental conservation and living in harmony with local communities. In 2011, we created the Honda Biodiversity Guidelines as part of the contributions we strive to make to global environmental conservation, a goal set forth in our Honda Environment Statement.

## Honda Biodiversity Guidelines

Basic Statement
We recognize, under the Honda Environment Statement, that biodiversity conservation initiatives are an essential part of our commitment to the preservation of the global environment.
We will continue to work toward harmony between this commitment and our activities.

### Priority Activities

1. Development of Environmental Technology
We will contribute to the conservation of biodiversity by developing and sharing technologies for fuel-efficient vehicles, next-generation cars, and energy-production and other technologies for the reduction of environmental impacts.

2. Initiatives Based on Corporate Activities
We will work to reduce environmental impacts and ensure the effective use of resources through efficiency improvements.

3. Cooperation with Communities
We will implement community-based activities in cooperation with stakeholders, using expertise accumulated by Honda through its initiatives to protect ecosystems, such as the Community Forests and Hello Woods initiatives.

4. Disclosure and Sharing of Information
We will share information with society by disclosing the outcomes of our activities.

Established in May 2011

**• Our greatest contribution: reducing environmental impacts from products and operations**

Resource exploitation, runaway development, pollution, Climate change—these and many other impacts of human activities threaten biodiversity. As a manufacturer of personal mobility products, we see our business activities as being most closely associated with the growing environmental impacts resulting from emissions of greenhouse gases (GHGs) and various other pollutants.
We believe that minimizing the environmental impacts that result from our business activities and products represents the greatest contribution we can make to protecting Earth's myriad life forms. We created the Honda Biodiversity Guidelines to set priorities in this effort, focusing our energies on developing environmental technologies and reducing impacts in our business activities, alongside initiatives to operate in harmony with local communities.

1. Develop technologies to reduce impacts on the environment
We will develop technologies to reduce the environmental impacts of personal mobility, since this represents the greatest contribution we can make. Technologies include fuel-efficient and next-generation vehicles, and technologies that harness alternative energy.

2. Make business activities species-friendly
We aim to make our business activities more sustainable in themselves, by releasing less environmental pollutants, including GHGs, waste, and substances of concern.

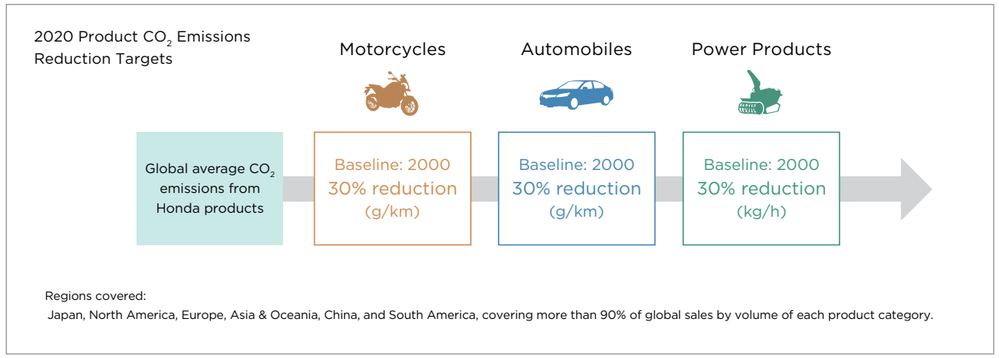
3. Work to protect nearby ecosystems
We have already gained a wealth of knowledge about how to maintain and restore ecosystems through our Community Forest and Hello Woods initiatives.
We will use this knowledge and experience to implement programs, such as HondaWoods1 activities launched in 2014, that help protect local species and make our business activities friendlier to them, for our benefit and the benefit of local communities.

4. Communicate openly with the public
We will endeavor to openly communicate with the public about the details and outcomes of activities we implement from the new perspectives offered by these biodiversity guidelines.

# PROGRESS IN MEETING ENVIRONMENTAL TARGETS

## 2020 Product $CO_2$ Emissions Reduction Targets

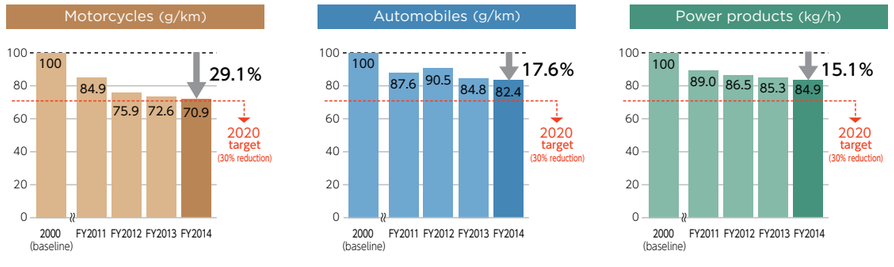
Reducing $CO_2$ emissions from our products is a necessary step in combating climate change issue and energy issue, the greatest challenges to our business. That is why we created the 2020 Product $CO_2$ Emissions Reduction Targets, through which we seek to reduce the average amount of $CO_2$ emitted per unit of motorcycles, automobiles, and power products 30% from 2000 levels by 2020. We hope to achieve these targets by developing more efficient technologies and marketing more energy-efficient products.




- **Progress update**

In fiscal 2014, we continued our momentum from fiscal 2013 and cut per-unit $CO_2$ emissions from motorcycles even further as a result of increased sales of fuel-efficient commuter models in the Asian market, including the Vario (Indonesia), Air Blade (Vietnam), and Activa (India). Likewise, we achieved a further reduction in per-unit $CO_2$ emissions from automobiles. This was due in part to increased sales of models that saw fuel efficiency improvements as part of a complete redesign, such as the Fit Hybrid and Odyssey in Japan, and the Accord, which underwent redesign the previous year, in the U.S. market. And lastly, we achieved a modest reduction in per-unit $CO_2$ emissions from power products compared to fiscal 2013 levels despite a decline in sales of household cogeneration systems, which have low per-unit emissions, and robotic lawnmowers, which emit zero exhaust gas. Increased sales of 1-kW generators with relatively low per-unit emissions, and the release of new highly efficient water pumps contributed to this reduction.

**Progress in meeting the 2020 Product $CO_2$ Emissions Reduction Targets**








## Mid-term Plans for Environmental Initiatives (FY2012-FY2014)

- **Three-year plans updated for FY2015**

Honda renews its business and sales-related plans every three years, a period designated as a mid-term. We follow this process for environmental initiatives as well, setting new plans and actions to reduce impacts from our products and business activities at the start of every mid-term.

- Close of the current mid-term

Fiscal 2014 was the final year of the mid-term that began in fiscal 2012, bringing the three-year plan we created for environmental initiatives during that period to a close. Overall, we accomplished everything in the plan. We will continue in the next mid-term to make steady progress in reducing the environmental impacts of our products and business activities.

**Product-related environmental initiatives and results (FY2012–FY2014)**

| Milestones on the road to 2020 | | Mid-term plans for product-related environmental initiatives (FY2012 – FY2014) | |
|---|---|---|---|
| Climate change and energy | Achieve global targets for reducing average product $CO_2$ emissions, with the end goal of steadily reducing product life-cycle emissions over the long term | 1 | Achieve best-in-industry fuel efficiency and accelerate technology penetration:<br>Motorcycles: Expand use of electronic fuel-injection (PGM-FI) and low-friction engines, especially in commuter vehicles<br>Automobiles: Phase in upgrades to engine and transmission lineups, starting in 2012<br>Power Products: Expand application of new electronic self-tuning regulator (STR) governor technology, developed for the iGX engine |
| | | 2 | Establish and deploy next-generation electromotive technologies:<br>Motorcycles: Launch electric motorcycles that meet local needs in developed countries (Japan: loaned) and emerging countries (China)<br>Automobiles: Launch multiple models (especially compact vehicles) equipped with IMA hybrid technology in Japan; currently developing mid-size and larger plug-in hybrid and battery electric vehicles, with plans to launch products in Japan and the U.S. and commence production in China in 2012<br>Power Products: Improve electric lawnmowers and expand lineup through additional model, especially in Europe |
| | Market new products to reduce $CO_2$ emissions from mobility and other products | 3 | Launch new thin-film solar cell modules with world's highest module conversion efficiency and deploy technology globally<br>Conduct demonstration testing of next-generation personal mobility systems in cities in Japan, the U.S. and China<br>Through joint-implementation of the E-KIZUNA Project with Saitama City, Japan, conduct demonstration testing of the Honda Smart Home System (HSHS) with an aim to cut household $CO_2$ emissions by 50% from 2000 levels by 2015 |
| Material and water resources | Ramp up 3R efforts | 4 | Products: Continue to promote structural design with an emphasis on weight reduction; higher throughput yields; easier recycling and maintenance; and sustainable design with an emphasis on easily recycled materials and use of recycled resins |
| Substances of concern | Reduce exhaust emissions | 5 | Steadily reduce exhaust emissions to comply with tighter emissions regulations in various countries |
| | More strictly manage substances of concern used in products | 6 | Promote management of substances used in products and find alternatives to substances of very high concern<br>Operate global management systems for substances used in products to comply with applicable regulations in various countries |

| Results of FY2014 initiatives | | |
|---|---|---|
| Climate change and energy | 1 | Motorcycles<br>Launched the Grom motorcycle powered by an air-cooled four-stroke OHC 125-cc single-cylinder engine featuring electronic fuel-injection and low-friction technologies (offset cylinder, roller rocker arm) delivering exceptional fuel performance (May 2013)<br>Launched the Sh mode, a stylish fuel-efficient scooter that employs a water-cooled four-stroke OHC 125-cc single-cylinder engine with electronic fuel-injection and an Idle Stop System (August 2013)<br>Automobiles<br>Launched an all-new Fit powered by a new Earth Dreams Technology powertrain that provides class-leading fuel efficiency (September 2013)<br>In Indonesia, launched the Brio Satya equipped with a 1.2-liter four-cylinder i-VTEC engine that delivers class-leading power output and outstanding fuel efficiency (September 2013)<br>Developed the new VTEC Turbo line of turbocharged direct-injection engines, providing class-leading power performance and exceptional fuel economy in the same machine (November 2013)<br>Power Products<br>Unveiled in the U.S. the EU7000is, Honda's first inverter generator to incorporate fuel injection (FI) technology, which runs longer thanks to a 20% improvement in fuel efficiency (January 2014) |
| | 2 | Motorcycles<br>Continued leasing the EV-neo electric scooter<br>Continued sales of the Kushi, an electric bicycle for the Chinese market<br>Automobiles<br>Launched the Accord Hybrid with a Sport Hybrid i-MMD hybrid system (June 2013)<br>Also began leasing in Japan a limited number of units of the Accord Plug-in Hybrid to individual customers in December 2013, following the start of leasing in the U.S.<br>Launched an all-new Fit Hybrid equipped with a Sport Hybrid i-DCD hybrid system (1.5-liter Atkinson cycle engine, high-output built-in motor, seven-speed DCT, and lithium-ion battery) offering the highest fuel efficiency in Japan (September 2013)<br>Power Products<br>Continued sales of Miimo, a robotic lawn mower equipped with a lithium-ion battery, in the European market (April 2013) |
| | 3 | Delivered FCX Clarity fuel cell electric vehicle with external power supply capability to Kitakyushu City, Japan and initiated demonstration testing in V2H application (April 2013)<br>Began test-driving the MC- micro EV using renewable energy-powered chargers (January 2014)<br>Opened the Honda Smart Home US in the U.S., offering Honda's vision for zero-carbon living and mobility (March 2014) |
| Material and water resources | 4 | Established a parts-to-parts recycling scheme to reuse components other than rare earths from disassembled nickel metal hydride batteries as components for new products (April 2013)<br>Reused rare earths extracted from used nickel–metal hydride batteries from hybrid vehicles in the manufacture of new hybrid vehicle motors (June 2013) |
| Substances of concern | 5 | Made steady progress in reducing exhaust emissions to comply with tighter emissions regulations in various countries |
| | 6 | Continued to promote management of substances used in products and employ alternatives to substances of very high concern<br>Continued to operate global management systems for substances used in products to comply with applicable regulations in various countries and reduce risk |

**Operations-related environmental initiatives and results (FY2012–FY2014)**

| Milestones on the road to 2020 | | Mid-term plans for operations-related environmental initiatives (FY2012 – FY2014) |
|---|---|---|
| Climate change and energy | Strengthen initiatives that span entire product life cycles | 1 Global operations: Reduce $CO_2$ emissions per unit of production by 5% by FY2014 (baseline: FY2009)[1] |
| | | 2 Purchasing domain:<br>- Promote measurement and reduction of suppliers' GHG emissions under the revised Green Purchasing Guidelines |
| | | 3 Production domain:<br>- Install cutting-edge environmental technologies at the Yorii Automobile Plant in Japan (production scheduled to begin in 2013) and make preparations to deploy the technologies globally<br>- Set benchmarks for energy use and set higher efficiency standards |
| | | 4 Transportation domain:<br>- Increase transportation efficiency in each region by implementing modal shifts, deploying more fuel-efficient trucks, etc. |
| | | 5 Sales and services, administration, product development domains:<br>- Promote energy conservation by encouraging eco-etiquette and more efficient use of facilities |
| Material and water resources | Ramp up 3R efforts | 6 Production domain:<br>- Strengthen resource-use-reduction initiatives by increasing throughput yields to reduce by-products<br>- Collaborate with suppliers to increase use of metal scraps<br>- Maintain zero landfill waste performance (Japan and Europe) |
| | | 7 End-of-life product recycling:<br>- Make steady efforts to comply with end-of-life vehicle recycling laws in various countries |
| | Minimize water use | 8 Production domain: Reduce use according to conditions in each region, for example by conserving water and using recycled water in production processes |
| Substances of concern | Reduce VOC[2] emissions from production processes | 9 Production domain: Develop VOC emissions-reduction technologies for coating processes and expand application to overseas facilities and motorcycle coating processes |
| Biodiversity | Local conservation initiatives in accordance with the Honda Biodiversity Guidelines | 10 Corporate initiatives:<br>- Educate suppliers on the destructive impacts of hazardous substances and water use on ecosystems<br>Collaboration with local communities:<br>- Conduct biodiversity surveys at business sites in Japan<br>- Develop policies, guidelines, and practical know-how at each business site<br>- Assess possibilities of introducing biodiversity initiatives at overseas business sites |
| Environmental management | Strengthen global/regional pro-motional frameworks and increase disclosure of environmental data | 11 Strengthen independent, voluntary promotional frameworks in each region, and strengthen global collaboration |
| | | 12 Expand Honda Environmental Annual Report into a global report, and increase disclosure of environmental data in each region |

| Results of FY2014 initiatives | | |
|---|---|---|
| Climate change and energy | 1 Global operations | Reduced average per-unit $CO_2$ emissions by 6% in FY2014 (baseline: FY2009) |
| | 2 Purchasing domain | Expand and promote measurement of GHG gas emissions from suppliers in a broader range of activities covering product life cycles<br>Asia & Oceania: Deployed the Energy Conservation Caravan to visit suppliers and monitor energy consumption |
| | 3 Production domain | Introduced advanced environmental technologies at the Yorii Automobile Plant in Japan, which began operations in 2013<br>Installed a megawatt-scale photovoltaic system at the Yorii Automobile Plant in Japan<br>Measured and monitored energy use for each process to revise production systems for higher efficiency<br>Set benchmarks for energy use and set higher efficiency standards<br>North America: Installed two 1.7-MW wind turbines at a transmission plant in Ohio<br>China: Installed a 10-MW solar photovoltaic system at a new plant at Guangqi Honda Automobile Co., Ltd.<br>Asia & Oceania: Made progress in switching from diesel generators to natural gas cogeneration systems |
| | 4 Transportation domain | Promoted transportation modal shifts in each region<br>Improved logistics efficiency by moving certain supplier operations on-site at the Yorii Automobile Plant<br>South America: Switched to coastal shipping routes to minimize truck transportation of motorcycles<br>Asia & Oceania: Shifted from truck and other modes of transportation to rail for shipping of parts between Thailand and Malaysia |
| | 5 Sales and service, administration, product development domains | - Promoted energy conservation by raising awareness, encouraging eco-etiquette, using facilities more efficiently<br>- Install high-efficiency devices (LED lighting, compressors, HVAC systems, IPM motors[3])<br>North America: Installed solar photovoltaic systems at dealerships |
| Material and water resources | 6 Production domain | - Implemented measures to improve throughput yields in the design stage<br>- Increase use of stamping press scrap metal |
| | 7 End-of-life product recycling | - Continued efforts to comply with the automobile recycling regulations of each country<br>Europe: Established a system for recycling batteries from hybrid vehicles |
| | 8 Production domain | - Promoted use of recycled water and water-conservation activities in each region<br>Asia & Oceania: Installed a 20,000-ton rainwater storage facility for industrial use at a new plant in India |
| Substances of concern | 9 Production domain | - At the Yorii Automobile Plant in Japan, adopted water-based Honda Smart Ecological Paint, enabling the elimination of a middle coat and switch from 4-coat/3-bake coating process to 3-coat/2-bake process<br>- Started using low-VOC coatings in coating processes<br>- Used low-VOC coatings for prototype models in product development |
| Biodiversity | 10 - Conducted biodiversity surveys at business sites in Japan | |
| Environmental management | 11 Convened Regional Environmental Committees and trained and held meetings of environmental officers in all regions | |
| | 12 Issued a fiscal 2014 regional environmental report in each region (North America, South America, Europe, Asia & Oceania, China, and Japan) | |

1. A single per-unit-of-production value was calculated by weighting the average reduction percentages for motorcycles, automobiles, and power products with the $CO_2$ emissions associated with their respective life cycles.
2. VOC (Volatile Organic Compounds): Organic chemical substances that cause photochemical smog and are commonly used in the solvents of paints and thinners.
3. Internal permanent magnet (IPM) motor: a synchronous alternating-current motor that has permanent magnets embedded in its rotor, known for its energy-saving capability due to its high efficiency and high torque.





## Mid-term Plans for Environmental Initiatives (FY2015–FY2017)

- Plans for the new mid-term

At the start of the new mid-term which begins in fiscal 2015, we drew up a new set of plans to guide the reduction of environmental impacts from our products and business activities over the next three years.
Product-related initiatives during this period will be aimed at minimizing all forms of impacts arising from products, and will include enhancing energy efficiency, improving our systems to reduce, reuse and recycle waste, reducing exhaust emissions, and carrying out stricter management of substances of concern.
Operations-related initiatives will include intensifying efforts to reduce product life-cycle $CO_2$ emissions, minimizing water use, and actively promoting environmental management across the supply chain.

Mid-term plans for product-related environmental initiatives (FY2015–FY2017)

| Milestones on the road to 2020 | | Mid-term plans for product-related environmental initiatives (FY2015–FY2017) | |
|---|---|---|---|
| Climate change and energy | -- | Achieve best-in-industry fuel efficiency and accelerate technology penetration: | |
| | | Motorcycles | - Expand use of programmed fuel-injection system (PGM-FI) and low-friction engines, especially in commuter vehicles |
| | | Automobiles | - Continue deployment of Earth Dreams Technology started in the previous 3-year mid-term<br>- Continue global release of 2.0-liter, 1.5-liter, and 1.0-liter turbocharged direct-injection engines providing class-leading power output and environmental performance |
| | | Power Products | - Accelerate use of compact engines and advance energy diversification |
| | | Establish and deploy next-generation electromotive technologies | |
| | | Motorcycles | - Market electric motorcycles that meet local needs in developed (Japan: loaned) and emerging (China) countries |
| | | Automobiles | - Expand lineup of models equipped with i-MMD, i-DCD hybrid systems<br>- Introduce in Acura models the SPORT HYBRID SH-AWD, a three-motor hybrid system with seven-speed DCT with built in motor for the front wheels, and independent motors for the left and right rear wheels<br>- Release a production FCEV model in Japan in 2015, and the U.S. and Europe thereafter, to advance the popularization of FCEVs |
| | | Power Products | - Improve robotic lawnmowers and expand lineup of electrically driven products |
| | Market new products to eliminate $CO_2$ emissions from mobility and daily living | - Using demonstration test houses in Japan, verify the operation and practicality of technologies developed to realize zero-carbon mobility and living by 2020, in collaboration with entities in other business sectors<br>- Work with local governments in Japan to carry out demonstration testing of the MC- micro EV with the aim of developing next-generation vehicles that minimize environmental impacts while spreading the joy and freedom of mobility, and to offer community development solutions that are suitable for each location | |
| Resource efficiency | Ramp up 3R efforts | Products: Continue to promote structural design with an emphasis on weight reduction, higher throughput yields, easier recycling, and maintenance; and sustainable design with an emphasis on easily recycled materials and use of recycled resins<br>Maintain an automobile shredder residue (ASR) recycling rate of more than 70%, and improve the motorcycle recycling rate to more than 95% by year-end 2015 | |
| | Reduce exhaust emissions | Make steady progress in reducing exhaust emissions to comply with tighter emission regulations in various countries | |
| Substances of concern | More strictly manage substances of concern used in products | - Continue to promote management of substances used in products and employ alternatives to substances of very high concern<br>- Continue to operate global management systems for substances used in products to comply with applicable regulations in various countries and reduce risk | |

- Mid-term plans for operations-related environmental initiatives (FY2015–FY2017)

| Milestones on the road to 2020 | | Mid-term plans for operations-related environmental initiatives (FY2015–FY2017) |
|---|---|---|
| Climate change and energy | Strengthen initiatives that span entire product life cycles | Global operations: Reduce $CO_2$ emissions per unit of production[1] by 10% by FY2017 (baseline: FY2009) |
| | | Purchasing domain:<br>- Promote measurement and reduction of supply chain GHG emissions in each region based on the Green Purchasing Guidelines |
| | | Production domain: - Disseminate advanced environmental technologies developed at the Yorii Automobile Plant in Japan, which began operations in 2013, to other production sites worldwide<br>- Set benchmarks for energy use and set higher efficiency standards |
| | | Production domain:Install renewable energy systems<br>- South America: 27-MW wind power system - China: Megawatt-scale photovoltaic system<br>- Japan: Megawatt-scale photovoltaic system at new test course in Sakura, Tochigi Prefecture |
| | | Transportation domain: - Increase transportation efficiency in each region by implementing modal shifts, improving truck fuel efficiency, etc.<br>- Spread packaging specifications without exterior containers worldwide |
| | | Sales and service, administration, product development domains:<br>- Promote energy conservation by encouraging eco-etiquette and using facilities more efficiently |
| Material and water resources | Ramp up 3R efforts | Production domain: - Intensify efforts to reduce resource use, e.g., by increasing throughput yields to reduce by-products<br>- Collaborate with suppliers to increase use of metal scraps<br>- Maintain zero landfill waste performance (Japan and Europe) |
| | | End-of-life product recycling: Make steady efforts to comply with end-of-life vehicle recycling laws in various countries |
| | Minimize water use | Production domain:<br>Reduce water use according to conditions in each region, for example by conserving water and using recycled water in production processes |
| Substances of concern | Reduce VOC[2] emissions from production processes | Production domain: - Develop VOC emissions-reduction technologies for coating processes and expand application to overseas production sites and motorcycle to coating processes<br>- Spread Honda Smart Ecological Paint introduced at the Yorii Automobile Plant in Japan to other new production site worldwide |
| Biodiversity | Local conservation initiatives in accordance with the Honda Biodiversity Guidelines | Corporate initiatives: - Address hazardous substances and water use that lead to ecological degradation<br>- Educate suppliers and other business partners<br>Collaboration with local communities: - HondaWoods[3] activities |
| Environmental management | Strengthen global/regional pro-motional frameworks and increase disclosure of environmental data | Strengthen independent, voluntary promotional frameworks in each region, and strengthen global collaboration |
| | | Advance sustainability reporting of environmental, social, and legal compliance |

1. A single per-unit-of-production value was calculated by weighting the average reduction percentages for motorcycles, automobiles, and power products with the $CO_2$ emissions associated with their respective life cycles.
2. VOC (Volatile Organic Compounds): Organic chemical substances that cause photochemical smog and are commonly used in the solvents of paints and thinners.
3. See page J62 of Japan Report to learn more about HondaWoods.

# GLOBAL REPORT
## 02. PRODUCTS

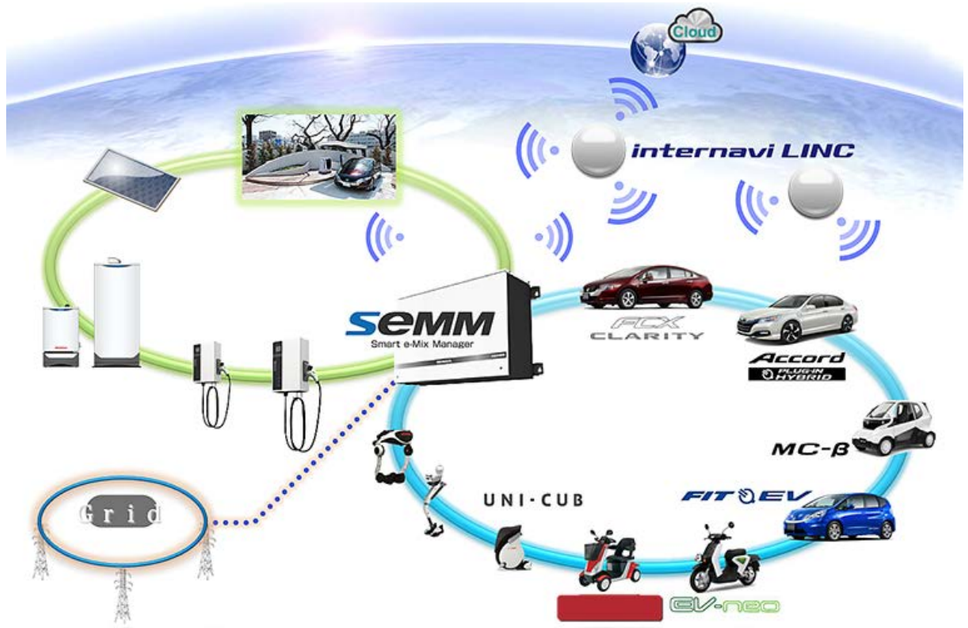


## NEXT-GENERATION TECHNOLOGY

Honda is developing next-generation technologies that will enable comprehensive management of personal mobility products and energy generation systems.

### Honda Smart Home System: High living comfort and low emissions at the same time

$CO_2$ E W



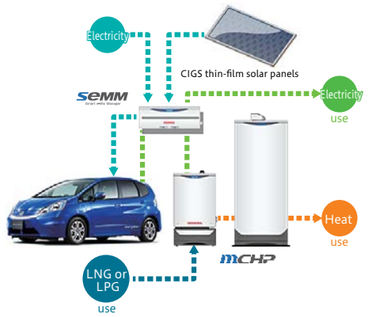

Honda's double-loop model links energy and next-generation personal mobility technologies

**• Integrating personal mobility with energy generation technologies**

Comprehensive management and optimization of energy supply and demand is crucial to achieving our mission to realize "the joy and freedom of mobility and a sustainable society where people can enjoy life." This applies not only to the energy used by mobility products but also energy used by households and entire communities.
To make this happen, we're developing devices that will make up what we call the Honda Smart Home System(HSHS), a system focused on using ICT technologies to link next-generation personal mobility devices, mainly electric vehicles, with local electric grids and distributed energy generation equipment.

**• Honda Smart Home System**

At the heart of Honda Electric Mobility Synergy is the Honda Smart Home System (HSHS). This energy management system comprehensively controls household energy to achieve the highest efficiency and lowest $CO_2$ emissions. It also enables individual homes to be energy self-sufficient during emergencies such as during power outages and natural disasters.
Since April 2012, we've been pilot testing the HSHS in Japan. The results of these tests will be used to develop, by 2015, technologies that help achieve a 50% reduction in $CO_2$ emissions (compared to 2000 levels) from household and vehicle energy use. Ultimately, we are aiming to completely eliminate household $CO_2$ emissions.




* EVs and FCEVs stand in for home battery units.

## Testing Honda Smart Homes around the world

CO2 E W

- **Test house built in Saitama City, Japan in three-company partnership**

Sekisui House, Ltd., Toshiba Corporation, and Honda have built a new demonstration test house in the city of Saitama and begun verifying the use of advanced energy management technologies in new styles of living. The house features technologies that enable comprehensive control of IT, personal mobility, and other devices, as well as the supply and demand of energy used in the home, for mobility, and within the local community.
Occupied by real tenants during testing, the test home is a duplex-style house that allows the sharing of energy resources, such as electricity and hot water, between households; for example, one household can use surplus electricity generated by the solar panels while other household members are out during the day. Through various technical innovations and initiatives—such as a contact-less charger for cordless EV charging, vehicle-to-home and vehicle-to-community electricity supply applications, and the designing of living spaces that facilitate use of personal mobility devices—Honda will work with Sekisui House and Toshiba to refine, in a real-world environment, technologies that support lifestyles of the future.

Duplex test house built in Saitama City

- **Honda Smart Home US built in California, U.S.**

In California, we built and opened the Honda Smart Home US (HSH US), a demonstration test house featuring a home energy management system (HEMS1) independently developed by American Honda Motor Co., Inc.
HSH US was fully furnished and equipped with household appliances, as well as a Fit EV battery electric vehicle for commuting, to enable testing by occupants.
The house generates more electricity from renewable sources than it consumes in a year, including the energy needed to charge the Fit EV for daily commuting. It is also extremely efficient: it uses less than half the energy for heating, cooling, and lighting than a similarly sized home in the area, and uses a third of the water consumed by the average American household.[2]

Test house built on the campus of the University of California, Davis

## Fuel cell electric vehicles: The ultimate in next-generation personal mobility

CO2 E W

Honda is actively engaged in research and development of the fuel cell electric vehicle (FCEV)—a vehicle that runs on hydrogen and offers the same comfort, cruising range, and driving performance as a gasoline vehicle but without creating any carbon emissions—as the ultimate eco-car.

FCEV Concept

- **FCEV Concept**

In 2013, Honda unveiled the FCEV Concept, a next-generation concept car designed to realize better performance at a lower cost than the FCX Clarity, aiming for release in 2015, when the first production FCEVs are expected to hit the Japanese market.
The FCEV Concept is equipped with a 70 MPa high-pressure hydrogen storage tank that provides a cruising range of more than 300 miles (around 480 km). The tank can be refilled in about 3 minutes, making refueling as quick and easy as today's gasoline vehicles.
External power supply capability, developed through demonstration testing of the FCX Clarity, is also optional on all Japanese-market models, providing backup power that can be supplied to the home in disasters and other emergencies.
We plan to release a production FCEV model based on this concept vehicle in Japan in 2015, and in the U.S. and Europe thereafter. We also will move forward with various initiatives to drive the popularization of FCEVs by 2020, including working with General Motors to develop a fuel cell system and hydrogen storage tank that are smaller, lighter, perform better, and are more affordable.


Honda's newly developed FC Stack delivers an output of more than 100 kW and power output density of 3 kW/liter while being 33% smaller than the previous technology.

1. Home Energy Management System
2. Honda internal data





# MOTORCYCLES

Message from the Head of Motorcycle R&D:

"Driving innovation that makes environmental technologies affordable is our highest priority."

Yoshishige Nomura
Director and Managing Officer, Motorcycle R&D Center, Honda R&D Co., Ltd.

## Meeting new needs in emerging markets

Photo: Motorcycle R&D Center, Honda R&D Co., Ltd.

Looking back on fiscal 2014, it's best we start with emerging markets, the main driver of Honda's thriving motorcycle business in recent years. In the ASEAN countries of Southeast Asia, changes in consumer preferences have emerged in tandem with economic growth. Utility is starting to lose its standing as the most desired attribute in a bike, with scooters accounting for a larger share of the market and demand for fun-to-ride models also growing.

I think Honda has made the right moves to capture this new demand. We expanded our lineup of compact scooters powered by eSP, a next-generation global engine that delivers high environmental performance. We also unveiled in Thailand the CBR300R motorcycle, which has a larger engine displacement than the model it replaces.

In India, a country with enormous potential for Honda, unit sales had declined due to our dissolving a joint venture with a local manufacturer in 2011. Nonetheless, we grew sales in fiscal 2014 by rolling out the Dream Neo, which boasts class-leading fuel efficiency, and the Activa-i for the emerging female demographic. Going forward, we will aim to quickly take back our position as the best-selling brand in India.

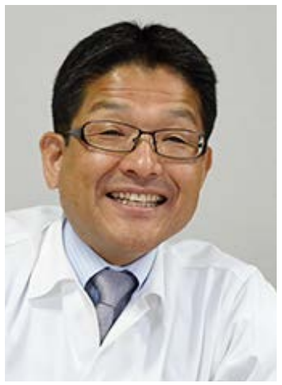
In developed markets, meanwhile, some interesting changes have been taking place in North America. The market for four-wheel utility vehicles, also known as side-by-sides, is expanding rapidly; Honda responded by launching the Pioneer 700. In mature markets, customer preferences have diversified, requiring more recreational and distinctive products. Honda has successfully met these changes in developed markets by leading the industry in developing products tailored to diverse consumer segments.

## Environmental leadership is no longer an option

While other motorcycles makers around the world have languished, Honda has greatly increased its sales volume, reaching 1.7 million units in fiscal 2014.

For Honda to remain a market leader in major growth economies such as India, Indonesia, and Africa, achieving—and maintaining—the highest environmental performance is no longer an option. We're carrying out a number of R&D initiatives to realize further improvements in the environmental performance of our motorcycles—from the expansion of friction-reducing technologies, our Idle Stop System, and PGM-FI for engines, to the application of fuel-efficient technologies from Honda automobiles.

Most important, however, is our ability to deliver these cutting-edge technologies at affordable prices. There's no point in sharing environmental benefits with only a few. I believe it's Honda's responsibility as a market leader to get advanced environmental technologies in the hands of more and more people. I'll see to it that we take bold steps to commercialize these technologies so we can achieve this.



Honda is driving the market penetration of models and engines with advanced environmental performance, especially in the rapidly growing Asian region.

## New Mid Concept series offers both enhanced riding and fuel efficient performance

• GLOBAL CO2 E W

NC750X

NC750S

Integra

**• Evolution of the New Mid Concept series**

In January 2014, we announced and began sales of the NC750X, NC750S, and Integra, large sport motorcycles equipped with water-cooled, four-stroke overhead cam, straight two-cylinder 750-cc engines boasting powerful torque characteristics, easy handling, and outstanding fuel efficiency.

These three models are the next step in the evolution of the NC700X, NC700S, and Integra, the first New Mid Concept models released in 2011. The original series adopted fuel efficiency technologies from Honda automobiles to realize a 40% improvement in fuel economy compared to other engines in the same class. This time around, we improved fuel efficiency and added more features while also upsizing engine capacity. With this enhanced product appeal, we will aim to further increase the popularity of mid-size bikes with advanced environmental performance.

• Better fuel performance in a larger engine

To obtain more powerful output characteristics from the new engine installed in the New Mid Concept series, we increased displacement by expanding the cylinder bore by 4.0 mm. This resulted in a 3-kW increase in maximum output and 7-N·m increase in maximum torque from the previous model. To support the increased cylinder volume, we switched from one balance shaft to two. We also adopted taller transmission gear ratios to boost fuel efficiency, up 1.0 km/liter from the previous model when tested at a constant speed of 60 km/h on a flat surface.

We view the New Mid Concept series as a way to raise the environmental performance of mid-size motorcycles worldwide, and will install this new engine in a growing number of models to realize further reductions in our global environmental impact.

## Expansion and evolution of the eSP global engine for next-generation compact scooters

• GLOBAL CO2 E W

Click with eSP (Thailand, etc.)

SH with eSP (Europe, etc.)

Global engine for next-generation compact scooters (cut-away model)

**• eSP: Powering in nine models in more than 30 countries**

The eSP, a global engine developed for a new generation of compact scooters, realizes 25% higher fuel efficiency than existing engines in the same class. Since releasing the engine in 2011, we've ramped up global sales of compact scooters fitted with the eSP for higher environmental performance, selling 2.08 million units in the two years since 2012.

We have also introduced a newly developed eSP engine for the 50-cc class to complement those in the 125-cc and 150-cc classes. This engine has been installed in in nine models in more than 30 countries. Going forward, we will further refine this engine and expand its use to improve the environmental performance of compact scooters worldwide.

**• Redesigned PCX fitted with improved eSP engine**

PCX

In January 2014, we released a completely redesigned PCX and PCX150 in markets worldwide, including ASEAN countries, Europe, and North and South America. In addition to being powered by an improved eSP engine, these models also feature various body-related improvements that provide a further boost to fuel efficiency, including all LED lamps, which provide a 60% improvement in electrical efficiency, and a fuel-efficient rear tire boasting 20% less rolling resistance.





## ASEAN-made 125 cc-class models going global

• GLOBAL CO2 E W

**• A class of motorcycles with universal appeal**

There's no reason the many 125 cc-class bikes we've marketed in ASEAN countries and other parts of Asia can't be the perfect commuters in other regional markets, given their exceptional fuel performance, space efficiency, and maneuverability.

In Japan, we've made use of these globally-made models to augment our lineup by introducing the LEAD125, Sh mode, CBR125R, Grom, Cross Cub, Zoomer-X, and various other models.

LEAD125

## Fuel-efficient Dream Neo 110-cc motorcycle released in India

• INDIA CO2 E W

Dream Neo

**• Most fuel-efficient Honda motorcycle in India**

In April 2013, we released the Dream Neo, the most affordable and most fuel-efficient Honda motorcycle released in India to date. The Dream Neo is powered by a new air-cooled four-stroke 110-cc engine that delivers the highest output and torque among Honda motorcycles in the equivalent class. And with a fuel economy of 74 km/liter, it's also the most fuel-efficient Honda bike marketed in India.

## PGM-FI[1] models expanded in Indonesia

• INDONESIA CO2 E W

**• PGM-FI models expanded in Indonesia**

Since issuing the All-FI Declaration, a pledge to install our fuel-saving PGM-FI electronic fuel injection system in all motorcycles produced in Indonesia by the end of 2013, we have gradually expanded our lineup of models with PGM-FI. In fiscal 2014, with the release of such models as the Supra X 125 FI and Mega Pro FI, we reached our target of 100% adoption of PGM-FI in all models produced.

Supra X 125 FI

Mega Pro FI

## Setting a new standard with the release of the new Dunk 50-cc scooter

CO2 E W
• JAPAN

Dunk, the first 50 cc-class Honda scooter in 12 years

Newly developed eSP, a water-cooled, four-stroke overhead cam, single-cylinder 50-cc engine

**• eSP engine debuts in 50 cc-class model**

In February 2014, we released the Dunk, our first new 50 cc-class scooter in 12 years.

The Dunk is based on a "premium sneakers" concept that seeks to provide riders with the joy of an elegant ride that's also easy to use. The model offers a new standard in scooter riding that adds an extra level of fun to daily activities for a wide demographic, including young adults.

To give it the power and environmental performance befitting a new standard scooter, we equipped the Dunk with a newly developed eSP engine featuring extensive low-friction technologies—the first time in a 50 cc-class scooter. This resulting fuel economy of 56.6 km/liter (when tested using the Worldwide-harmonized Motorcycle Test Cycle[2]) is 10% higher than existing bikes in the equivalent class, while also boosting output by 18% and torque by 11%, also compared to bikes in the same class.

1. Programmed Fuel Injection
2. Fuel efficiency value measured using the WMTC test cycle, an international standard stipulating the method for testing exhaust gas under conditions that better reflect real-world vehicle driving patterns, such as startup, acceleration, and stopping.

# AUTOMOBILES

Message from the Head of Automobile R&D:

## Expansion and evolution of the eSP global engine for next-generation compact scooters

## "Striving for products that offer high environmental performance and exciting value unique to Honda"

Jiro Yamaguchi
Director and Senior Managing Officer, Automobile R&D Center, Honda R&D Co., Ltd.

### Optimizing our global product lineup led to industry-leading environmental performance in each region


Photo: Automobile R&D Center (Tochigi), Honda R&D Co., Ltd.

One great achievement of fiscal 2014 was the global launch of a new generation of compact vehicles. We completely redesigned the Fit series to provide class-leading fuel performance in both gasoline and hybrid vehicle variations, and also released the Vezel SUV and City sedan based on the same high-efficiency powertrain. This trio of efficient vehicles put us in the right place to deliver a new generation of compact vehicles to customers worldwide. In North America, we finished development of the Acura RLX, featuring SPORT HYBRID SH-AWD (Super Handling All-Wheel Drive), Honda's first three-motor hybrid system. Combined with the one-motor hybrid system, SPORT HYBRID i-DCD (Intelligent Dual Clutch Drive), and two-motor hybrid system, SPORT HYBRID i-MMD (Intelligent Multi-Mode Drive), these three models complete our hybrid vehicle lineup.

We also released a variety of new models in other regions across the globe, including the Civic Tourer wagon in Europe, the Amaze sedan in India, and the Mobilio MPV with third-row seating in Indonesia. Behind these successes was the impressive growth of our local product developers in emerging countries. In fiscal 2014, we got significantly closer to what we see as the ideal process for global product development: to develop core technologies in Japan and support overseas developers as they incorporate them into models optimized to each region. This approach helped us realize industry-leading environmental performance in each region.

### New-generation VTEC Turbo engines lead the way to more affordable environmental technologies

In emerging markets like China, India, Brazil, and Africa, motorization is advancing at a pace many time faster than post-war Japan. The fate of our business in these countries will hinge on how economically we can deliver environmentally advanced products. One technology that offers a solution is engine downsizing, the approach of using forced induction and other efficiency technologies to deliver more power with less displacement. We developed VTEC Turbo, a new-generation downsized turbo engine that delivers higher fuel performance at a lower cost, as well as power performance that lives up to Honda's reputation for fun driving. We plan to fit this engine in a number of global models from fiscal 2015, so be on the lookout. One important task from a longer-term perspective is workplace development. While low-carbon technology is an essential part of future mobility, customers won't buy our products if they don't come with an added element of excitement, an appeal that only Honda can provide. Honda's identity is rooted in the creation of amazing products no one has ever seen before. To continue developing exciting, mold-breaking products, we need exciting, mold-breaking workplaces for our developers. By returning to a work environment and culture that fearlessly takes on new challenges, we will lay the foundation for launching products that are the first and best of their kind. It will also help us raise the next generation of developers who will lead Honda—and the world—in environmental innovation, and to realize the zero-impact society we all strive for. I hope to share this passion with our young developers and show the world what Honda is truly made of by conceiving a long line of new, appealing products that embody the perfect combination of environmental performance and enjoyment.







Honda makes the most of advanced technologies to develop automobiles that balance driving fun with environmental performance.

## Redesigning a globally strategic model: the third-generation Fit

Fit Hybrid

**• A compact car with global proportions**

Since its launch in 2001, the Fit has sold an impressive 4.87 million units in 123 countries worldwide.[1] We released a completely redesigned model—the first in seven years—in Japan in September 2013. To make this third-generation compact model more convenient, user-friendly, and appealing to customers worldwide, we loaded it with advanced technologies, including an Earth Dreams Technology[2] powertrain and new platform.

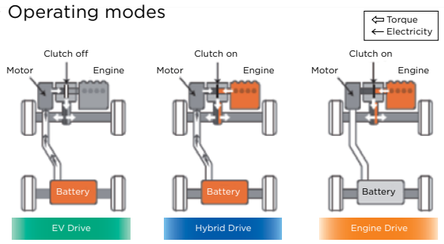
**• Newly developed Sport Hybrid i-DCD hybrid system**

The Fit Hybrid features Sport Hybrid i-DCD,[3] a newly developed lightweight and compact one-motor hybrid system. Paired with a newly developed 1.5-liter Atkinson cycle engine, these systems automatically select the most efficient of three driving modes depending on operating conditions, thereby achieving an exceptional fuel efficiency of 36.4 km/liter[4] (JC08 test cycle).

**• Sport Hybrid i-DCD**

1.5-liter Atkinson Cycle DOHC i-VTEC engine | 7-speed DCT with built-in motor | IPU5 with built-in lithium-ion battery

• Operating modes



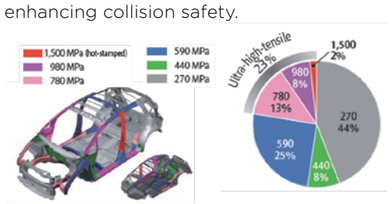

**• Even gasoline engine model boasts class-leading fuel economy**

The 1.3-liter gasoline engine Fit employs a newly developed Atkinson cycle engine and an optional continuously variable transmission for dramatically enhanced transmission efficiency. These result in a fuel economy of 26.0 km/liter[6] (JC08 test mode), which rivals that of early hybrid models.

Fit | 1.3-liter Atkinson Cycle DOHC i-VTEC engine

**• Rigorous weight reductions boost fuel performance**

Around 23% of the Fit's body is made of ultra-high-tensile steel, steel that is stronger and lighter than high-tensile steel, defined as having a tensile strength[7] of 780 MPa or more. This trimmed approximately 9 kg of weight and provided an additional boost to fuel efficiency, while also enhancing collision safety.




**• Rollout of the Global Compact Series**

The powertrain series that premiered in the new Fit will be gradually expanded to upcoming models in Honda's Global Compact Series, which includes the Vezel SUV released in Japan in December 2013, the City sedan released in India, and the North American version of the Fit produced at our new automobile plant in Mexico.

Vezel SUV in the Global Compact Series

New City Sedan (India) in the Global Compact Series


Fit for North America, produced at a new automobile plant in Mexico

1. As of March 31, 2013 2. A next-generation powertrain series that greatly enhances both driving performance and fuel economy, building on advancements in environmental performance for internal combustion engines, transmission efficiency, and electromotive technologies to pursue the joy of driving unique to Honda. 3. i-DCD: Intelligent Dual Clutch Drive 4. Testing of the Fit Hybrid (FWD) by the Japanese Ministry of Land, Infrastructure, Transport and Tourism 5. Intelligent power unit 6. Testing of the Fit 13G (FWD/CVT) by the Japan's Ministry of Land, Infrastructure, Transport and Tourism 7. Tensile strength: The strength of a material to resist being stretched or pulled apart.

## The latest hybrid models and lightweighting technologies

• NORTH AMERICA CO₂ E W

**• Acura RLX newly developed three-motor sport hybrid system**

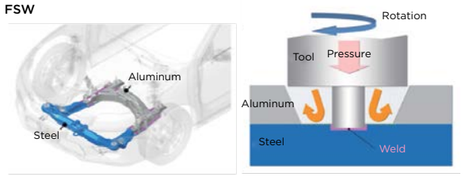
The 2014 RLX announced in North America is powered by the Sport Hybrid SH-AWD,[1] Honda's first three-motor hybrid system. A 3.5-liter direct-injected V6 engine, paired with a seven-speed DCT with built-in motor, controls torque to the left and right wheels independently, and simultaneously delivers the acceleration performance of a V8 engine and the fuel economy of an in-line four-cylinder engine.

2014 Acura RLX
SPORT HYBRID SH-AWD

**• Honda-exclusive metal joining technologies**

What do the 3D Lock Seam used in the door panels of the RLX and friction-stir welding (FSW) used in the front subframe of the Accord have in common? Both take advantage of a new welding technology for joining aluminum and steel, two metals with vastly different material properties. They also represent an advancement in broadening the application of lightweight aluminum, which contributes to lighter, more fuel-efficient vehicles.

FSW




## Expanding application of our lightweight 1.6-liter diesel engine

• EUROPE CO₂ E W

**• Civic Tourer released in February 2014**

We're expanding the application of our 1.6-liter i-DTEC diesel engine, released in January 2013 in the Civic 5-door as the first Earth Dreams Technology component introduced in Europe. The engine now powers the Civic Tourer, a new wagon model launched in February 2014 that was specifically developed for the European market.

This lightest-in-class[2] compact diesel engine delivers a powerful and fun driving performance, along with a $CO_2$ emissions performance of just 99 g/km.[3]

Civic Tourer

Civic 5-door

1.6-liter i-DTEC diesel engine
(cut-away mode

## New eco-cars released in India and China

• ASIA & OCEANIA • CHINA CO₂ E W

**• New City world premiere held in India**

In January 2014, we unveiled in India the all-new City, a sedan model in our Global Compact Series of vehicles developed for markets worldwide.
As an embodiment of our “man maximum, machine minimum” (M/M)4 philosophy, it offers the most spacious interior of any City thus far.5 In India, the City is available with either a 1.5-liter four-cylinder i-DTEC diesel engine or a 1.5-liter four-cylinder SOHC i-VTEC gasoline engine, both of which deliver high fuel efficiency and power output.
The City will be rolled out in a growing number of markets worldwide.

All-new City, a sedan model in our Global Compact Series of vehicles developed for markets worldwide

**• Earth Dreams Technology debuts in China**

In a press announcement in June 2013, we expressed our commitment to proactively introducing environmental, safety, and comfort technologies to the Chinese market to provide our customers there with greater fun, satisfaction, and convenience in line with our founding belief that "technology is for people." Soon after, in September 2013, we unveiled the new Accord, the first model in China to feature Earth Dreams Technology. We plan to continue expanding these innovative powertrains to new models in China to achieve even higher levels of fun-to-drive performance and to be the first automaker to satisfy China's strict fuel economy regulations.

The Accord has sold 1.5 million units in China since 1999. The new model features an exterior tailored to the Chinese market

1. Super Handling-All-Wheel Drive 2. Honda internal data (as of September 30, 2012) 3. Honda internal data (Civic Tourer, as of September 2013)
4. A basic Honda design philosophy that seeks to maximize space and comfort for people and minimize space occupied by the product and its components
5. Honda internal data





## New VTEC Turbo line of turbocharged direct-injection engines

• JAPAN CO₂ E W

2.0-liter four-cylinder direct-injection gasoline turbo engine

This engine makes the most of our proprietary VTEC system, a high-output turbocharger, direct injection, and a high-performance cooling system to realize high power output and high responsiveness. It delivers a maximum power output of more than 205 kW and a high environmental performance compliant with EURO 6, European emission regulations that will come into force in September 2014.

1.5-liter four-cylinder direct-injection gasoline turbo engine

1.0-liter three-cylinder direct-injection gasoline turbo engine

This next-generation compact engine features a newly designed framework and VTEC variable valve timing system with radically reduced friction, combined with direct-injection technology and a high-response turbocharger with a low moment of inertia. These technologies offer a superior combination of fuel economy and power output and torque, both of which exceed that of conventional, naturally aspirated engines.

**• Class-leading power and environmental performance**

Honda has developed VTEC Turbo, a new series of direct-injection gasoline turbo engines in our Earth Dreams Technology[1] series.

These engines, adapted for compact and medium-sized cars, take advantage of our proprietary VTEC system and the increased output provided by direct-injection and a turbocharger along with highly fluidized combustion to allow for reduced engine displacement. Rigorous friction-reduction measures also provide class-leading power and environmental performance. Sized in three classes—2.0, 1.5, and 1.0 liters—the engines will be increasingly deployed worldwide, with each engine selected to match the vehicle it powers as well as local market needs.

## N-WGN and N-WGN Custom extend popularity of the N series

• JAPAN CO₂ E W

N-WGN

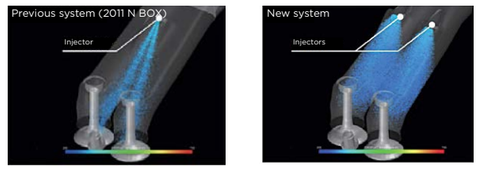
**• Raising the bar on the "basic" mini-vehicle**

In November 2013, we released the N-WGN and N-WGN Custom, the fourth installment in our popular N series of mini-vehicles.

The N-WGN, developed with the aim of setting a new standard for the "basic" mini-vehicle, offers better comfort, safety, fuel economy, design, and driving performance than ever before. A comfortable interior and great features such as Vehicle Stability Assist (VSA), which helps prevent the loss of vehicle control, come standard on all types, while a newly developed engine and CVT provide smooth, stress-free driving and a high fuel economy of 29.2 km/liter2 (JC08 test cycle).[2] The adoption of a lightweight yet rigid body and dedicated suspension system facilitate stable driving performance and quiet operation.

**• Twin injection system**

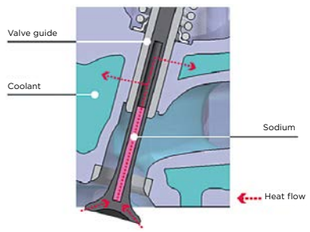
For the first time in a mini-vehicle, the N-WGN employs a twin injection system, a system that uses two fuel injectors per cylinder instead of one. This system mixes fuel and air more evenly, leading to improved drivability and fuel economy.




Twin injection system atomizes fuel and distributes the air-fuel mixture more evenly

**• Sodium-filled exhaust valves help suppress knocking**

The N-WGN engine employs sodium-filled exhaust valves—the first time in a Honda passenger vehicle. These valves transport and dissipate heat more efficiently than conventional valves, lowering the surrounding temperature and suppressing engine knocking.




1. Testing of the N-WGN G, N-WGN G A Package, N-WGN Custom G, and N-WGN Custom G A Package (FWD vehicles) by the Japan's Ministry of Land, Infrastructure, Transport and Tourism

# POWER PRODUCTS

Message from the Head of Power Products R&D

## "Building in environmental performance for reduced impact"

Takao Nishida
Director and Managing Officer, Power Products R&D Center, Honda R&D Co., Ltd.

### FI and efficiency upgrades provided enhanced environmental performance and utility in FY2014

Photo: Power Products R&D Center, Honda R&D Co., Ltd.

n fiscal 2014, we equipped a two-stage snow blower in Japan and a large generator overseas with FI,1 realizing a roughly 15% improvement in fuel efficiency as well as enhanced utility for users. FI is already a common technology in automobiles and motorcycles, but cost has been a major hurdle to its adoption in power equipment. Our success in surmounting this hurdle in fiscal 2014 thus has huge significance for future product development.

In emerging markets, we unveiled a water pump for agricultural applications that, due to enhanced pumping efficiency, is more fuel-efficient. We also released in 2014 a four-stroke backpack power sprayer—a device for spraying agricultural chemicals that users can carry on their back—as a fuel-efficient alternative to mainstream two-stroke models, as well as other products that contribute to reduced agricultural emissions in emerging countries.

### "We want to create tools customers will use with affection for 10, 15 years."

Turning to the future, we're developing products that offer new value. These include not only extremely fuel-efficient engine models, but also products that run on alternative fuels such as alcohol and gas, as well as those powered by electricity. Electric products are quiet, emit zero $CO_2$ during use, and also offer more precise control. As long as we can fully leverage the convenient qualities of electricity, these products are an effective option for improving environmental performance and user friendliness simultaneously. We're already using electricity in Honda automobiles and motorcycles, but creating electric products with the performance customers seek but at appealing prices will require one more step forward in innovation. We need to upgrade our technologies by pursuing all of the qualities power products are expected to have as tools—from comfortable and efficient control and operation, to even having the most convenient size and weight—and then refine them to the point where we can include them in products at an attractive price.

Price is the hard part about electrification in particular, but also power products in general. That's why we're working to realize products that not have superior environmental performance but are also surprisingly easy and fun to use.

In fiscal 2015, we plan to get the ball rolling by releasing the first model in our product electrification strategy in developed countries. We're basing this product on an existing gasoline engine model so customers can still feel at home with the new setup.

In emerging countries, we want to continue pursuing our current strategy of delivering products at more affordable prices. For most customers in emerging countries, power products are work tools: they are a means of securing a livelihood and improving one's quality of life. As such, they don't need fancy features. By practicing sangen-shugi (a Japanese manufacturing philosophy that emphasizes focusing on the actual place, source, and facts of a problem) in the marketplace and reducing products to their essential functions, we hope to develop products that are appealing by every measure, price included. Spreading the joy of utility in this way will be a major theme going forward.

At the same time, we have to consciously build in environmental performance according to the unique characteristics of each product. No one will buy a tool whose only selling point is that it's good for the environment. We need to create tools with the kind of utility that everyone desires, tools that people will use with affection for 10, 15 years—and to include in them environmental performance that's still relevant after those 10, 15 years have passed. At Honda, that's our mission as a company striving to build a sustainable society.

1. Electronic fuel injection





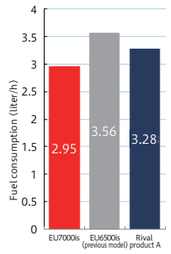
POWER PRODUCTS

Honda develops an extensive line of power products and is constantly working to improve their environmental performance to raise the quality of life for everyone.

## EU7000is generator with inverter and electronic fuel injection

• GLOBAL CO2 E W


EU7000is




**• More efficient and more powerful**

In January 2014, we unveiled in the U.S. the EU7000is, Honda's first inverter generator to incorporate fuel injection (FI) technology.

Compared to the model it replaces, the EU7000is runs longer thanks to a 20% improvement in fuel efficiency, while also delivering 8% higher power output. The use of fuel injection eliminates the need for a choke valve, dramatically improving operation at start-up and also enhancing the generator's long-term storability. The adoption of FI and a three-way catalytic converter also results in exhaust emissions that meet the U.S. Environmental Protection Agency's (EPA) Phase 3 standards, the most stringent emission standards for small gasoline equipment in the world.

From a portability, quietness, and size standpoint, the EU7000is has all the right qualities to make it suitable for use across a range of scenarios and settings, including for backup power in emergencies, at construction sites, and for camping.

## BF100 and BF80 four-stroke outboard engines delivering exceptional fuel and power performance

• GLOBAL CO2 E W

**• Higher output in the same lightweight, compact design**

For Europe and other markets outside Japan, we released the BF100 (100 horsepower) and BF80 (80 horsepower), medium-sized four-stroke outboard engines combining high fuel efficiency with advanced power performance.

These new models build on the BF90 and BF75 (90 and 75 horsepower) 1.5-liter straight four-cylinder engines by offering higher efficiency and power output in the same lightweight, compact design. Incorporating programmed fuel injection (PGM-FI)[1] with an O2 sensor has enabled lean burn control during cruising,[2] resulting in a higher fuel efficiency.

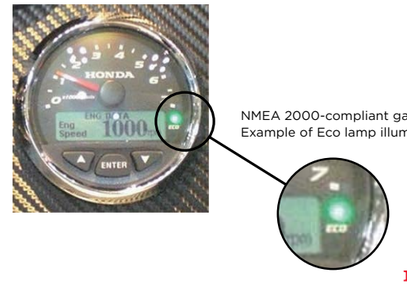
The two engines are also compliant with emission regulations in various countries, including the latest U.S. EPA regulations (EPA's fiscal 2010) and California Air Resources Board exhaust emission regulations.

They are also compliant with NMEA 2000, the communications standard for marine electronics set by the U.S. National Marine Electronics Association (NMEA), enabling networking with a variety of marine electronic devices. This means that, in addition to providing electronic output on engine speed, running time, and other real-time performance data, these models also deliver an Eco lamp signal which, when connected to a compatible display gauge, will illuminate a lamp to indicate lean burning and notify the driver of fuel-efficient engine operation.

All Honda outboard engine models with 40 or more horsepower and PGM-FI incorporate lean burn control technology that combines with Eco lamp display capability to facilitate fuel-efficient driving.

Since releasing our first four-stroke outboard engine, the GB30, in 1964, we have consistently developed four-stroke outboard engines in the spirit of founder Soichiro Honda's philosophy that nothing that runs on water should contribute to its pollution. Fifty years later, we're introducing cutting-edge technology as the pioneer of the four-stroke outboard engine.

BF100 (left) and BF80 (right)



NMEA 2000-compliant gauge
Example of Eco lamp illumination

1. PGM-FI is a registered trademark of Honda Motor Co., Ltd.
2. Cruising speed range when the throttle is kept open at around 50 to 80%.

## HSL2511: the world's first snow blower with FI technology

• JAPAN

CO2 E W

### • World's first auger assist function

In November 2013, we released the HSL2511, the first snow blower in the world[1] to incorporate fuel injection (FI) technology.

This two-stage snow blower employs the Honda Smart Auger System, which has three auger settings (auger assist, auger lift, and auger reset) that make heavy snow-throwing work simple and easy. The world-first[2] auger assist function[3], that can be turned on and off with the flip of a switch, makes simple work of snow-clearing jobs that require more advanced techniques, such as clearing high banks of snow in a step-wise fashion. The model's new four-stroke V-twin engine, which includes a Honda-original electronic governor for regulating engine speed and electronic fuel injection (first in the world[2] for a gasoline engine-powered snow blower), delivers high fuel economy and exceptional ease of starting and operation.

### • Simple operation, powerful results

The adoption of a Honda-exclusive STR Governor and powerful new V-twin engine provide class-leading[2] snow clearing performance of 140 tons per hour. Two operating modes provide different engine output characteristics depending on the situation: Standard mode uses powerful torque to achieve quick and easy snow removal, while Distance mode uses high speed, high output to throw snow higher and farther—in fact, as far as 26 meters, the farthest in this class.2 The HSL2511 also includes a teaching function, which features a speed guide monitor to help the operator adjust the driving speed and obtain the highest work efficiency in each mode.

At Honda, we develop snow blowers based on the philosophy that easier, more efficient operation not only reduces stress for users but also reduces energy use through shorter work times, thus shrinking our impact on the global environment.

### • Pursuing reliability, comfort, and ease of use

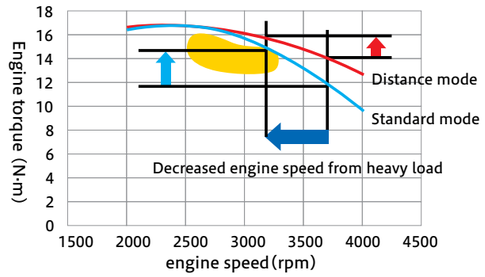
The inclusion of FI eliminates the need for choke operation, providing smooth starts even in frigid temperatures and high fuel economy. This also made the carburetor obsolete, along with the associated need for altitude correction and after-use maintenance.

### • Environmental performance

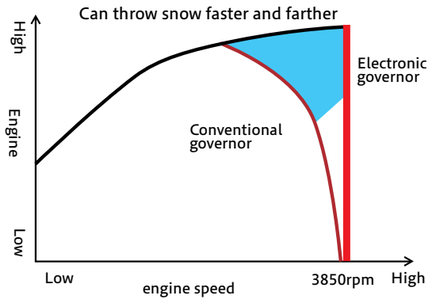
A new GX690H V-twin engine (displacement 688 cm$^3$) not only delivers better practical fuel efficiency[4] but also less noise[5] and fewer emissions.

HSL2511 two-stage snow blower (back)

HSL2511 control panel




*The engine is designed to provide much higher torque when the engine slows down, making operation easy.





HSL2511 two-stage snow blower (front)

1. for petrol engine snow blower (Honda internal data, as of July 31, 2013)
2. Honda internal data, as of July 31, 2013 3. J-type only
4. Approximately 15% better compared to the previous model in the same class, despite 20 cm3 larger engine displacement
5. When operated in Standard mode

# GLOBAL REPORT
03. MANAGEMENT



## GLOBAL ENVIRONMENTAL MANAGEMENT

Honda has created an institutional framework to put into practice the environmental principles articulated in the Honda Environment Statement, and has expanded it globally. In addition to creating environmental management systems at the global and regional levels, we are also actively working to establish these systems and to obtain ISO 14001 certification at all business sites.

### Environmental Management Organization

**• Organizational structure**

In December 1991, Honda created what is now the Japan Environmental Committee and assigned it a central role in governing the environmental affairs of the company. Since then, this structure has been expanded into a global environmental management system with regional environmental committees in North America, South America, Europe, Asia & Oceania, and China.

In March 1995, the World Environment and Safety Committee was established to manage environmental as well as safety initiatives,[1] through which Honda aims to create a motorized society that is safe for all people. The committee discusses, determines, and reviews annual plans for implementing environmental conservation activities at the global level based on mid-term business plans, and has created an environmental management system that integrates activities on the global level with those on the factory floor.

In April 2014, Honda established the Japan Headquarters and separated global functions from operations in Japan. Prior to this, Honda's organizational structure was established globally from its foundation in Japan, but regional roles and responsibilities have been clarified, and we have now taken on a truly globalized operational structure, with six organically linked regional organizations.

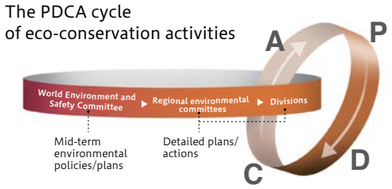
The company president and CEO currently chairs the committee, a reflection of Honda's recognition that environmental issues such as climate change issue, energy issue, and resource issue, are critical to Honda's business operations.

**• The PDCA cycle of eco-conservation activities**

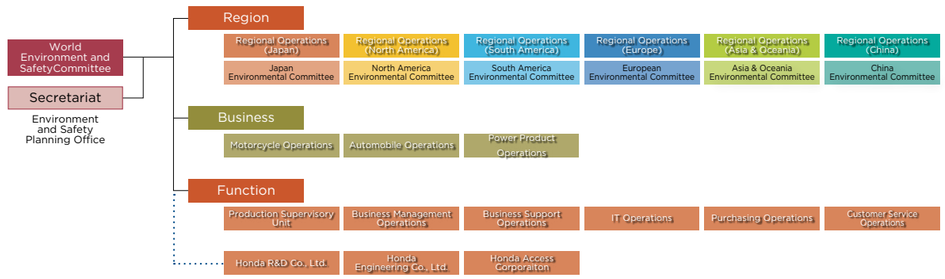
The World Environment and Safety Committee develops develops three-year mid-term policies and plans for global environmental initiatives based on mid-term policies and management plans determined by the Management Council. Individual divisions prepare detailed plans for each region and business area, and then finalize the overall plans after discussion and approval by the regional environmental committees.
The regional environmental committees discuss and evaluate annual achievements under the plans and, based on the results, create new targets and plans with the objective of achieving mid-term policies and plans. The progress of environmental initiatives by Honda Group companies, as well as themes affecting multiple domains around the world, are reported to the World Environment and Safety Committee and then factored into the next year's annual plans and the next mid-term business plans and policies. Honda follows the Plan-Do-Check-Act cycle to promote continuous improvement in environmental performance in each region: Japan, North America, South America, Europe, Asia & Oceania, and China.

One hallmark of this system is that planning and implementation are not simply delegated to specialized staff, rather all associates are expected to be involved. The basic thinking is that all associates should be actively tackling environmental issues as a part of their daily work.

The PDCA cycle
of eco-conservation activities




Honda's organizational structure for environmental management




1. For information on safety initiatives, see the Honda CSR Report and Honda Driving Safety Promotion Activities.

**• Regulatory compliance**

In accordance with the Honda Environment Statement, Honda introduces environmental management systems at all business sites and in each division, promotes continuous efforts to improve environmental performance, and strives to comply with voluntary environmental standards that are more stringent than national and local regulations. We revised the Honda Conduct Guideline in April 2013 (formulated 2010) and are implementing it throughout the Honda Group in Japan and worldwide. The document calls on Honda associates to comply with laws and regulations, company rules, and social norms and, for the purposes of environmental conservation, to strive to reduce environmental impacts in their work by conserving and recycling resources and energy in accordance with environmental laws and regulations, company policies, and internal standards. We have appointed corporate directors to serve as Compliance Officers, and work systematically to enhance compliance and risk management under the supervision of directors in charge of each part of the organization.

## Environmental Management at Honda Business Sites

Along with development of environmental management systems at the global and regional levels, we have been introducing such systems at each business site in order to continuously improve their environmental performance and to control environmental pollutants.

**• ISO 14001-certification status worldwide**

We have been working actively to acquire ISO 14001, an international certification for environmental management, particularly at our production facilities. Presently, more than 90% of all Honda vehicle assembly and product assembly plants worldwide are certified.

After acquiring certification at each of our five major production facilities in Japan, we combined their certification for integrated operation of their management systems. Going forward, we plan to promote acquisition and expand our integrated system to include environmental management of the Saitama Factory's Yorii Automobile Plant, newly completed in March 2013. We also combined in fiscal 2012 the certification registration for nine office buildings in Japan, including the Honda head office buildings in Aoyama and Wako.

**• Implementation of third-party verification**

In order to ensure that society and stakeholders recognize a high level of transparency and reliability in the environmental impact data released by Honda, we have been obtaining third-party verification of our data from Bureau Veritas Japan Co., Ltd. (see page G04). Since fiscal 2012, we also have been conducting a series of on-site sampling surveys at business sites in Japan and overseas, with consideration given to necessity and balance from a public perspective.

Business sites covered by third-party verification


Third-party data verification by Bureau Veritas Japan Co., Ltd.





## Disclosure of total GHG emissions

**• Honda GHG emissions in FY2014**

As a responsible company operating in the mobility industry, Honda believes in the importance of calculating and disclosing greenhouse gas (GHG) emissions in order to drive progress in initiatives to reduce global emissions.

As the first milestone in this endeavor, in August 2012 Honda became the world's first mobility company to disclose estimates of all GHG emissions from its entire value chain in conformity with the Greenhouse Gas Protocol (GHG Protocol),[1] currently the world's most widely used GHG emissions accounting standard. We released estimates of FY 2012 emissions not only from our own business activities (scope 1 and 2), but also from all upstream and downstream activities (scope 3), extending from the procurement of raw materials to the transportation and customer use of Honda products, and ending with the treatment of end-of-life products.[2]

Honda continues to calculate and report its emissions, and is making improvements to get a more accurate assesment of emissions from our entire value chain. We are doing this in scope 3 (other indirect emissions), for example, by widening the boundaries of data collection[3] for categories that account for the largest proportion of estimated emissions, and improving the accuracy of calculation methods.

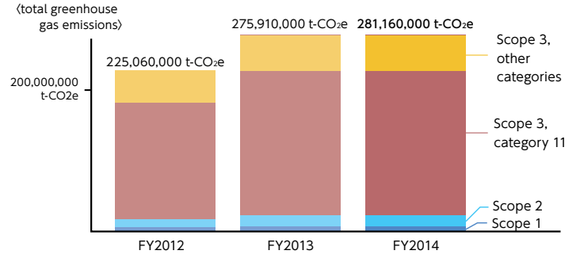
The calculations for FY 2014 show that GHG emissions from Honda business activities were 5.21 million t-$CO_2$e, and total emissions from the value chain, including other indirect emissions, were 281.16 million t-$CO_2$e. We hope to leverage these improvements in data measurement and management to devise more effective emissions reduction strategies.

1. Published by the World Business Council for Sustainable Development and the World Resources Institute
2. Read more about Honda's GHG emissions disclosure efforts in Case 19 of "Environmental Documentary—Honda Face." (http://world.honda.com/ environment/face/)
3. The scope of data collection was broadened in fiscal 2013, capturing additional greenhouse gas emission amounting to 7% of total emissions. We will consider ways to further broaden this scope in fiscal 2014 and beyond.

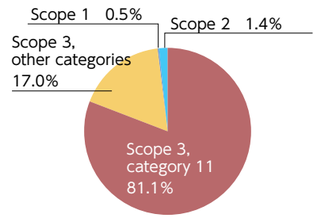
Honda's total greenhouse gas emissions

| | | FY2012 | FY2013 | FY2014 |
|---|---|---|---|---|
| GHG emissions from the entire Honda value chain (scopes 1, 2, and 3) | | 225,060,000 t-$CO_2$e | 275,910,000 t-$CO_2$e | 281,160,000 t-$CO_2$e |
| Break down | Direct emissions from business activities (scope 1) | 1,240,000 t-$CO_2$e | 1,410,000 t-$CO_2$e | 1,410,000 t-$CO_2$e |
| | Indirect emissions from energy use (scope 2) | 2,960,000 t-$CO_2$e | 3,540,000 t-$CO_2$e | 3,800,000 t-$CO_2$e |
| | Emissions from Honda business activities (scope 1 and 2) | 4,200,000 t-$CO_2$e | 4,950,000 t-$CO_2$e | 5,210,000 t-$CO_2$e |
| | Emissions from customer use of sold products (scope 3, category 11) | 195,880,000 t-$CO_2$e | 225,950,000 t-$CO_2$e | 228,140,000 t-$CO_2$e |
| | Other emissions (scope 3, other categories) | 24,980,000 t-$CO_2$e | 45,010,000 t-$CO_2$e | 47,810,000 t-$CO_2$e |
| | Other indirect emissions (total of scope 3) | 220,860,000 t-$CO_2$e | 270,960,000 t-$CO_2$e | 275,950,000 t-$CO_2$e |

Total GHG emissions, FY2012 to 2014




Breakdown of total FY2014 GHG emissions




- Scope 1: Direct GHG emissions from business activities, as defined by the GHG Protocol (examples: combustion of fuel oil at a manufacturing plant, emissions from work vehicles and company cars). The scope 1 figures presented in this report include all GHGs emitted directly by Honda Motor Co. and its consolidated subsidiaries and affiliated companies worldwide.
- Scope 2: Indirect GHG emissions from a company's use of energy, as defined by the GHG Protocol (examples: electrical energy used by a manufacturing plant or office). The scope 2 figures presented in this report include all GHGs emitted directly by Honda Motor Co. and its consolidated subsidiaries and affiliated companies worldwide.
- Scope 3: Other indirect GHG emissions not included in scope 1 and scope 2, as defined by the GHG Protocol. Scope 3 is systematically broken down into 15 categories (examples: category 11 includes emissions arising from the use of sold products; category 12 includes emissions arising from the end-of-life treatment of sold products).
- The category 11 figures presented in this report represent the cumulative amount of greenhouse gases that will have been emitted by products sold by Honda in each fiscal year (automobiles, motorcycles, power products) as a result of their use by customers from the time they received those products until they dispose of them in the future. The "scope 3, other categories" figures presented in this report are the sum of emissions from categories 1, 2, 3, 4, 5, 6, 7, 9, 10, 12, and 15. As per the GHG Protocol, Honda excludes categories 8, 13, and 14 from its calculations, as these categories are either not part of Honda business activities or emissions from these categories are accounted for in other categories.

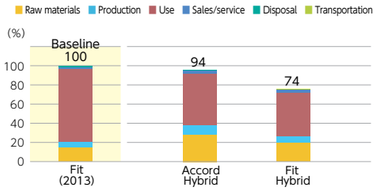
### • Promoting lifecycle assessment (LCA)

We have been developing our own methods to reduce the environmental impacts of our business activities and across product life cycles, from production through disposal.

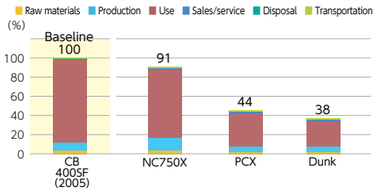
In March 2002, we built the Honda Life-Cycle Assessment (LCA) Data System, a system for measuring $CO_2$ emissions from all business activities, and since then have been making focused efforts to meet reduction targets set for each domain—production, purchasing, sales and service, administration, transportation, and so forth.

We are also calculating and assessing $CO_2$ emissions across product life cycles—from raw material procurement to product disposal—and making use of this information in our efforts to reduce $CO_2$ emissions for each model. This information is also important when considering applications for the many next-generation technologies we are developing, so we are using to develop low-carbon solutions at the development stage.

LCA results for
major automobile models released in FY2014(Japan)




LCA results for
major motorcycle models released in FY2014 (Japan)




### • Reducing GHG emissions from use of sold products

Scope 3, category 11 emissions (emissions from use of products sold to our customers), accounted for more than 80% of GHG emissions from Honda's entire value chain. This means the greatest challenge to reducing emissions from our value chain is finding ways to reduce emissions related to customer use of Honda products. To this end, we've established the target of reducing global average product $CO_2$ emissions 30% from 2000 levels by 2020, and are working to improve the fuel efficiency of our products.

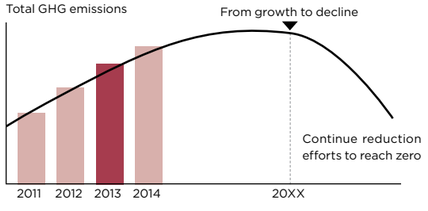
For the foreseeable future, however, our production volume is likely to outpace expected improvements in fuel efficiency, so even if we achieve this target, we still predict an increase in scope 3, category 11 emissions. Nevertheless, it is essential for us to find ways to reverse this rising trend. We are certain that our ultimate aim is to reduce total emissions from our products, even as production expands.

### • Reducing total GHG emissions

Honda's ultimate aim is to achieve zero GHG emissions from its products and business activities. To achieve this, we have adopted the Triple Zero concept, a vision of the future that sees us shrinking three types of environmental impact down to zero. On the path to this future, we will aim to cut Honda's total GHG emissions in half by 2050.

To realize this target, we have adopted our own Honda Environmental Performance Standards (HEPS), and by applying them to Honda products we aim to reduce GHG emissions through improvements in fuel efficiency, the use of renewable energy, and other approaches.

Emissions from Honda operations: Conceptual projection



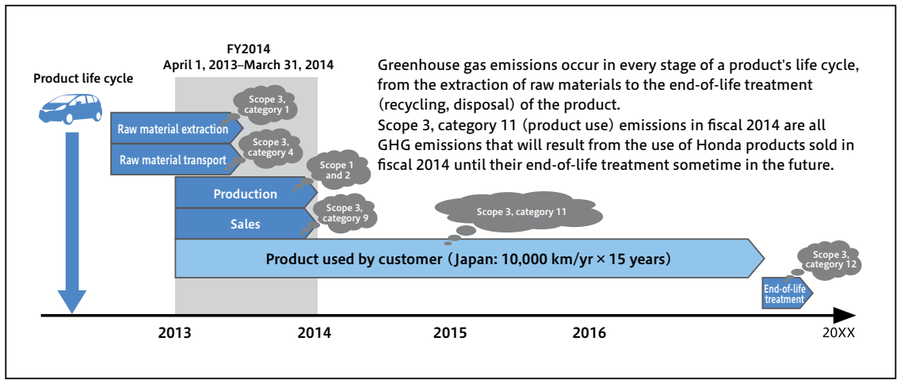





**The thinking behind scope 3, category 11 (emissions from product use)**

Scope 3, category 11 emissions, $CO_2$ emissions from the use of products sold to our customers, accounted for more than 80% of emissions that took place across our value chain. The reason category 11 is so large is because it includes not only the $CO_2$ that Honda products sold in fiscal 2014 emitted in fiscal 2014, but also the $CO_2$ those products will emit in the future. In other words, when a customer in Japan purchases a Honda vehicle, we expect that customer to drive the vehicle 10,000 km a year for 15 years.[1] Scope 3, category 11 is where we calculate all the $CO_2$ that will be emitted during that time.

Scope 3 includes future emissions because it is based on an accounting method that counts emissions not when they occur but when the business activities that will result in those emissions occur. The approximately 27 million automobiles, motorcycles, and power products that Honda sold to customers around the world in fiscal 2014 will continue emitting $CO_2$ as they are used and until they are disposed of at some point in the future. Scope 3 says that these emissions are the result of Honda having sold its products in fiscal 2014.




1. Annual distance traveled, product lifetime in years: Based on the WBCSD's SMP Model developed by the International Energy Agency

## Economic Benefits of Environmental Conservation Activities

Honda strives to measure cost savings and revenue associated with its environmental conservation activities in order to maximize their effects.

Economic benefits

(yen)

| | | FY2014 | FY2013 |
|---|---|---|---|
| Income from sale of valuable waste materials | | 3.8 bil | 2.4 bil |
| Cost reductions from saved energy | Installed technologies | 0.1 bil | 0.2 bil |
| | Behavioral changes, etc. | 0.05 bil | 0.1 bil |
| Total | | 3.9 bil | 2.7 bil |

* Effect on revenue and expenses in Japan

In fiscal 2014, we calculated these economic benefits by tallying revenue from the sale of valuable materials resulting from waste and emissions processing, together with costs saved through energy conservation measures.

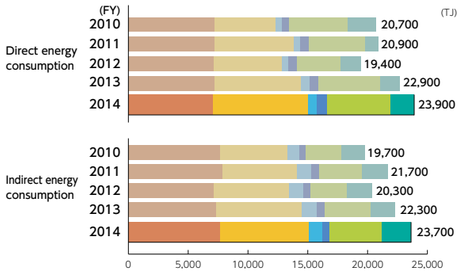
We not only disclose these data to external stakeholders as indicators of our corporate value, but also use them as a reference for making administrative decisions regarding environmental innovation. Going forward, we will continue working to improve the accuracy of data collected from operations in Japan, while also verifying methods for collecting data from overseas business sites that are suitable for global disclosure.

# GLOBAL ENVIRONMENTAL IMPACT

Honda is promoting its Green Factory initiative worldwide, with the goal of creating production facilities that are the pride of the communities in which they operate. In our non-production activities as well, we are promoting energy conservation and waste reduction initiatives on a global basis.

Japan North America South America Europe Asia/Oceania China

### Energy consumption



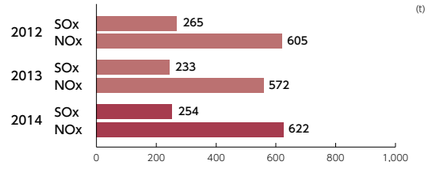

Companies covered: Nearly all consolidated subsidiaries and affiliated companies of the Honda Group
• Purchased electricity has been converted to joules using the international standard 3.6 GJ/MWh.
• Calculations are based mainly on energy consumed by stationary sources.
• A terajoule (TJ) is a unit of energy, "tera" meaning $10^{12}$

### Greenhouse gas emissions



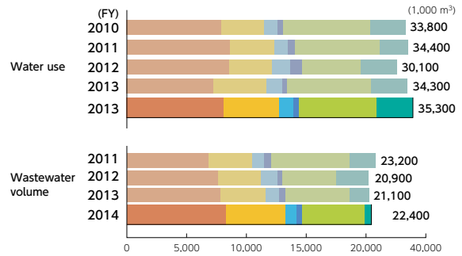

Companies covered: Nearly all consolidated subsidiaries and affiliated companies of the Honda Group
• Greenhouse gas emissions were calculated while referring mainly to the WRI and WBCSD's 2004 "The Greenhouse Gas Protocol (Revised Edition)."
• Calculations are based mainly on emissions from stationary sources

### Atmospheric pollutants




Companies covered: Nearly all consolidated subsidiaries and affiliated companies of the Honda Group
•Calculations are based on fuel consumption.

### Water use, wastewater volume




Companies covered: Nearly all consolidated subsidiaries and affiliated companies of the Honda Group
Disclosure of wastewater volume begun in fiscal 2011.

### Waste generated, landfilled




Companies covered: Nearly all consolidated subsidiaries and affiliated companies of the Honda Group
• Landfilled amounts for waste outside Japan also include other waste treatment methods
• Figures for Japan indicate amounts actually brought to landfills.

### Environmental data for manufacturing, by region (FY2014)

| | | | Japan | N. America | S. America | Europe | Asia & Oceania | China |
|---|---|---|---|---|---|---|---|---|
| Energy | Purchased electricity | (1,000 MWh) | 1,590 | 1,900 | 320 | 128 | 1,170 | 686 |
| | Natural gas | (1,000 GJ) | 82 | 7,010 | 333 | 662 | 1,370 | 1,190 |
| | Liquefied petroleum gas | (1,000 GJ) | 813 | 120 | 301 | 6 | 1,380 | 67 |
| | Diesel | (1,000 GJ) | 7 | 95 | 23 | 20 | 717 | 65 |
| Waste | Landfilled Waste | t | 0 | 9,000 | 1,100 | 0 | 3,700 | 15,400 |
| | Volume recycled | t | 445,000 | 406,000 | 60,000 | 40,000 | 197,000 | 118,000 |
| Water use | Municipal Water | (1,000 ) | 3,740 | 3,140 | 220 | 600 | 5,830 | 4,450 |
| | Groundwater | (1,000 ) | 4,280 | 2,350 | 1,480 | 10 | 3,420 | 0 |
| | Rainwater | (1,000 ) | 50 | 10 | 0 | 0 | 40 | 0 |

* LNG is not included.

* The data of companies added to Honda's consolidation during the reporting year and companies that have been excluded from the consolidation due to a merger, liquidation, or other change, are not included.
* Totals with more than three digits have been rounded to three significant digits.





# REGIONAL ENVIRONMENTAL TOPICS

## Economic benefits of environmental conservation activities

## North America

CO₂ E W

### "Green Dealer" program continues to contribute to GHG reduction

Rossi Honda's solar PV system

American Honda's "green dealer" program helps encourage independently owned and operated Honda and Acura automobile dealers in the U.S. quantifiably to reduce their environmental impact.

The program gives Honda Environmental Leadership and Acura Environmental Leadership Awards to dealers who have significantly reduced their impact on the environment. The awards are based on a rigorous points system that incorporates relevant environmental improvement measures, as well as a demonstrated reduction in energy consumption.

In fiscal 2014, dealer enrollments increased nearly 600%, from 40 dealers to 238, while the number of award recipients increased from 19 to 29. In addition, Rossi Honda of Vineland, New Jersey, became the first dealer to achieve Electric Grid Neutral status. Rossi combined a 223 kW solar PV system with the addition of LED lamps on its parking lot light poles and the system now generates more than 100% of the dealership's annual electricity from solar power.

CO₂ E W

### Wind turbines begin providing renewable energy at Honda transmission plant in Ohio

Two 1.7 MW wind turbines provide about 10% of the plant's electrical needs

In January 2014, Honda Transmission Manufacturing of America Inc., a Honda subsidiary that produces automobile transmissions, began operations of two 1.7 MW wind turbines on its property in Ohio. The wind turbines are operational year-round and, on average, provide approximately 10 percent of the plant's electrical needs.

Based on average electrical consumption in Ohio, these wind turbines could supply electricity to approximately 1,052 homes.[1]

The installation and operation of the turbines makes Honda the first automaker in North America to get a substantial amount of energy for one of its plants from wind turbines located on its own property.

1. per Public Utility Commission of Ohio data – average home in Ohio consumes 9600 kWh/year

## South America

CO₂ E W

### Implementing cabotage system to optimize transportation in Brazil

Introduction of a coastal ship-based system to motorcycle transportation reduces $CO_2$ emissions.

Moto Honda da Amazônia Ltda., a Honda motorcycle production and sales subsidiary in Brazil, transports 1.3 million motorcycles made in Manaus to all corners of Brazil, and 515 thousand tons of parts are transported from suppliers to the plant.

In order to optimize transportation and lower environmental impacts from logistics, the company has been developing environmental management systems together with partners.

A coastal ship-based system was implemented in 2012 at the company, taking advantage of the Brazilian geography, which favors the use of ships for transporting loads. This modality has enabled the company to cut the average $CO_2$ emissions for each motorcycle transported by 12.5 kilograms. Currently, this modality comprises 18% of the total number of transported motorcycles, while the remainder is transported via roads and rivers.

CO₂ E W

### Honda wins the Gold Seal in Brazilian GHG Protocol for 3 Years in a row


Gold Seal earned in Brazilian GHG Protocol program

For the third consecutive year, Honda Automóveis do Brasil Ltda. (HAB), a Honda automobile production and sales subsidiary in Brazil, was granted the Gold Seal in the Brazilian GHG Protocol program. The program was created by the World Resources Institute (WRI) to quantify the greenhouse gas emission and is currently the most used methodology to prepare GHG emission inventories.

The company was the first company in the automotive business to publish the inventory of $CO_2$ emissions in the three scopes assessed (sources of direct emission, indirect for use of energy, and indirect for generation of customers and suppliers).

Moto Honda da Amazônia was presented the recognition for the first time and received the Bronze Seal based on its partial inventory of greenhouse gas emissions.

2. GHG inventory: An accounting or database of all greenhouse gases emitted and sequestered within a given geographical area and time frame, typically on a national and annual basis.

## Europe

### Honda joins HyFive project to develop hydrogen cars

CO2 E W

In April 2014, Honda and other leading motor manufacturers, hydrogen fuel suppliers and energy consultancies from around the globe signed a  38.4 million agreement coordinated by the Mayor of London's Office, to develop and demonstrate technology and infrastructure that will help fuel cell electric vehicles (FCEVs) to become a viable and environmentally responsible option for European motorists in the future. The pioneering deal, known as the HyFive project (Hydrogen For Innovative Vehicles), is the largest of its kind in Europe. Honda is one of five manufacturers who have agreed to deploy a total of 110 hydrogen fuel cell vehicles at several European locations and develop new clusters of hydrogen refueling stations. The potential for FCEVs to become widely available is now seen as increasingly likely as the cost of the technology is reduced and refueling infrastructure is improved. Honda's next generation FCEV will be launched in Europe in early 2016.

Staff from the companies joining the HyFive project

### Honda signs agreement for recycling of batteries from hybrid vehicles in Europe

CO2 E W

In September 2013, Honda Motor Europe Ltd., a Honda subsidiary that manages the import and sales, production and logistics of Honda products in Europe, formalized the long-term partnership with SNAM (Société Nouvelle d'Affinage des Métaux), based in France, which will be responsible for the European-wide collection and recycling of Honda's hybrid vehicle batteries (high voltage Nickel Metal Hydride (NiMH) and Lithium Ion (Li-Ion) industrial batteries).

The two companies have worked together to establish a European system to ensure the traceability of end-of-life batteries from the moment they are collected from Honda dealers and end-of-life vehicle centers through to the recycling of the batteries. Every battery collected at the end of its life will be processed at SNAM's facilities. Each collection point within the Honda network will work closely with SNAM to manage the treatment of NiMH and Li-Ion batteries in accordance with European environmental standards EU Battery Directive 2006/66/EC.


Partnership with SNAM in recycling of Honda's hybrid vehicle batteries

## Asia & Oceania

### HMSI installs rain water harvesting system

CO2 E W

Honda Motorcycle & Scooter India Pvt. Ltd. (HMSI) installed a highly efficient rainwater harvesting and groundwater recharging system at its new plant, launched in May 2013. As one of Honda's Green Factory initiatives, the new system collects rainwater from rooftop of the building and stores it in an underground tank to be utilized as industrial water after quality control. Excessive ground water consumption caused by rapid industrial growth is one of the serious environmental issues in India. The rainwater harvesting system is expected to reduce groundwater use by 20,000 tons per year.

Rain-water harvesting system reduces ground-water use by 20,000 tons per year

### Honda Malaysia switches to railway to transport parts between Thailand and Malaysia

CO2 E W

In December 2013, Honda Malaysia Sdn. Bhd. switched to using a rail-based transport system for delivery of parts between Thailand (using Thailand National Railways (SRT)) and Malaysia (using Keretapi Tanah Melayu (KTM)).

Anticipating that its production volume will double by 2016, the company made research and trials to reform its transportation system and found that changing the mode of transportation from trucks and ships to rail has numerous benefits.  The use of rail is expected to reduce $CO_2$ emissions by up to 60% and logistic costs by 50% within two years, as well as shorten delivery time to 2.5 days, compared to 3 days for goods transported by trucks and 7 days for goods transported by ship.


Modal shift to railway reduce $CO_2$ emissions and delivery time





## China

### FUNTEC unveiled at tech strategy press conference

CO2 E W

In June 2013, Honda Motor (China) Investment Co., Ltd., Guangqi Honda Automobile Co., Ltd., and Dongfeng Honda Automobile Co., Ltd., jointly held a press conference in Beijing to announce their future technology strategy for the region. One key announcement was the introduction of FUNTEC, new technologies delivering advanced environmental, safety, and comfort performance.

Going forward, we will use the distinctive FUNTEC label to distinguish these technologies and succinctly convey to Chinese customers our intentions in developing them: to provide fun, satisfaction, and convenience to all who use Honda products.


Associated companies unveil FUNTEC in Beijing press conference

### Guangqi Honda begins construction of new eco-conscious production facilities

CO2 E W

Guangqi Honda Automobile Co., Ltd., an automobile production and sales joint venture in China, began construction in May 2013 on a third automobile assembly line and new engine plant at its Zengcheng Plant.

The new assembly line will be powered by a 10-MW solar array, the largest among automakers in China1, and will employ new technologies for painting and stamping processes, including a short-process, high-performance painting system and high-efficiency laser welder. The innovative, high-efficiency production line, scheduled for operational launch in 2015, also draws on new environmental technologies from the Yorii Automobile Plant in Japan. It will start with an initial annual production capacity of 120,000 units, with the ability to scale up to 240,000 units in the future.

1. Honda internal research

Guangqi Honda's production capacity will grow from 480,000 to 600,000 units in 2015

## Japan

CO2 E W

### Honda Green Conference honors three years of environmental progress

The triennial Honda Green Conference was held in fiscal 2014, gathering associates from across Honda to share and promote the most successful environmental projects in each operational domain. Eight teams selected from seven annual domain conferences presented their achievements, which ranged from the design and construction of a major facility, to smart behavioral changes that yielded significant improvements without costing a single yen. The Best Presentation Award, chosen by the audience, went to Hamamatsu Factory for its adoption of a new gear cutting method2.

2. Learn more in "Environmental Documentary—Honda Face." (http://world.honda.com/environment/face/2012/)

Awards were handed out after a summary evaluation by President Ito

### Yorii Automobile Plant wins ministerial award for global warming reduction

CO2 E W

The Yorii Automobile Plant, a new facility at Saitama Factory that began operations in July 2013, is one of the most energy-efficient plants in the world, using its cutting-edge production and environmental technologies to achieve a 30% reduction in per-unit energy use compared to other Honda plants. The project was applauded for its pioneering use of numerous technologies and products that help curb greenhouse gas emissions, earning the 2013 Environment Minister's Award for Global Warming Prevention Activity in the "countermeasure technology introduction and dissemination" award category. Environment Minister Nobuteru Ishihara presented the award certificate and trophy to Jun Nishimoto, General Manager of Saitama Factory for Automobile Production Department, Automobile Operations, at a ceremony on December 4, 2013.

General Manager Jun Nishimoto (holding the award certificate) alongside Environment Minister Nobuteru Ishihara

# EUROPEAN REPORT
PROLOGUE



## PROLOGUE

### Environmental Message of Toshiaki Mikoshiba

Toshiaki Mikoshiba
Managing Operating Officer of Honda Motor and President of Honda Motor Europe.

We continue to see European customers becoming increasingly sensitive to fuel efficiency, accelerating the popularity of small turbocharged and diesel engines. I am therefore pleased to report that during FY2013 Honda introduced the Civic Tourer 1.6 i-DTEC, built specifically for Europe, and the CR-V 1.6 i-DTEC. These models build on the success of the Civic five-door which also features this engine, which debuted in 2012.
The 1.6 i-DTEC diesel engine is the lightest in its class and the first from the Earth Dreams Technology powertrain series to be released in Europe. These new models meet both customer demand and further our response to current European emissions regulations. In the future we will face even more challenging regulations, which come into effect in our region in 2020, requiring Honda to reduce average $CO_2$ emissions per vehicle to 95 g/km.

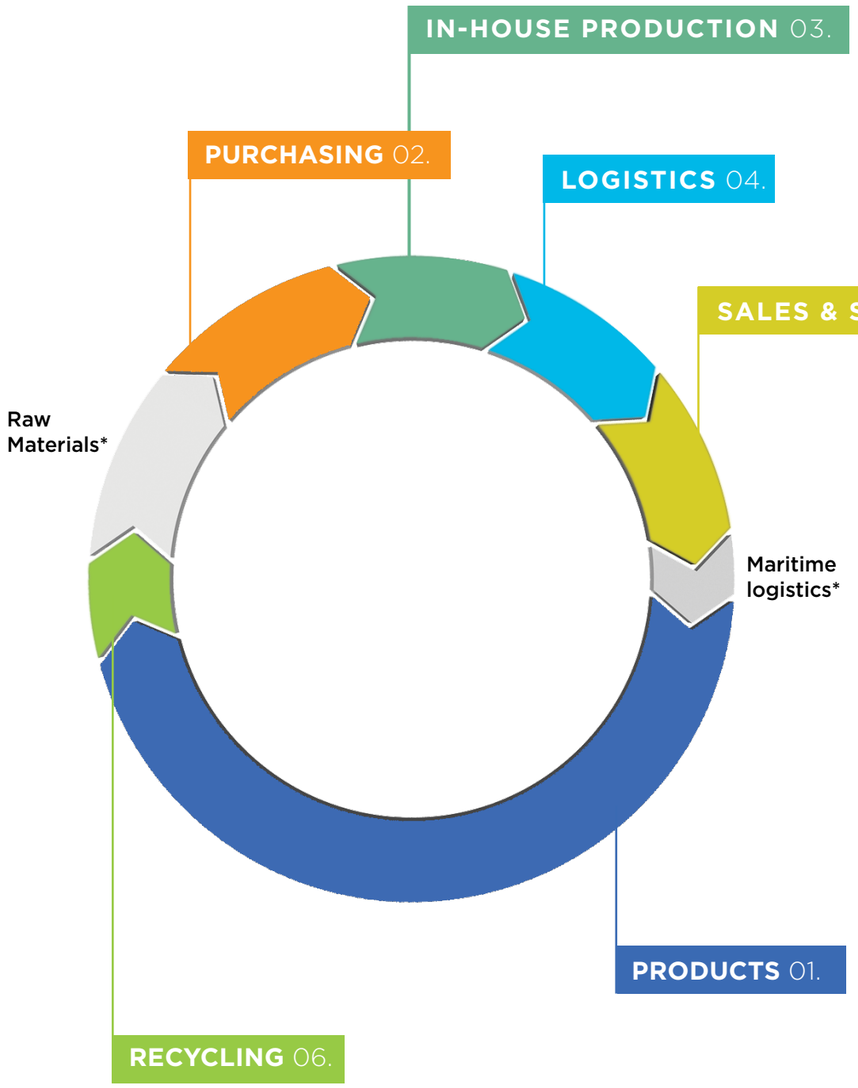
Our priority moving forward is to ensure that more customers benefit from the development of our Earth Dreams Technology series. As such we will do everything we can to promote the exciting range of products to come in the following year, for example the Civic Type R and NSX, two models which embody the spirit of Honda. We also look forward to introducing the new Jazz (Fit), a truly global model; and the European version of the Honda HR-V (sold as Vezel in Japan) a compact SUV which will also feature the 1.6 i-DTEC engine.

2015 will also see Honda's return to the FIA Formula One championship. The new regulations in Formula One incorporate the use of Energy Recovery Systems, ensuring that environmental technologies will play a more significant role in the competition going forward. It has always been Honda's philosophy to use our learnings from the race track to further develop our products, and our participation in Formula One will ensure that this approach continues.

In the area of production, I am delighted to report that this year marks the third consecutive year of zero waste to landfill for cars, motorcycles and power equipment; and the second consecutive year for parts. Additionally, Honda of the UK Manufacturing Ltd (HUM) based in Swindon, UK, celebrated a significant milestone during FY2013, reducing its waste to incineration without energy recovery to zero, realising its ambition to become a 100% Recycling Plant by 2014.

In corporate initiatives we have continued to increase the use of renewable energy in production, as well as creating a system for the collection and recycling of used batteries from our hybrid vehicles. Another key focus for us in Europe is our participation in fuel cell electric vehicle initiatives, such as the H2Mobility project in the UK and the Pan-European HyFive project.

Looking a little further into the future, this year saw the debut of Honda's FCEV Concept, a prototype of our next-generation fuel cell electric vehicle. The FCEV Concept further underlines Honda's commitment to leadership in the development of zero-emissions technology. This exciting model will be launched in 2015 in the United States and Japan, followed by Europe.




## The LCA Cycle: basis for the Environmental Report

As Honda implements initiatives designed to realise its environmental vision, the company recognises the importance of addressing the environmental impact of products throughout their life cycle, including $CO_2$ emissions generated through usage.

The life cycle assessment (LCA) approach is very important to Honda, hence the use of this image throughout the regional data within the report. The (grey) aspects of the life cycle (also marked with *) are not in the scope of this report.

If sites referenced in the report are responsible for multiple LCA aspects or sub-LCA aspects, the values which are not directly attributable are split, based on the used facility surface share (see the company overview at the end of the report). For example, if the premises are shared by sales entities, warehousing activities and/or R&D facilities, and there is no separate measurement of the respective environmental data, the split is made based on surface used in the buildings by each of the activities.

# EUROPEAN REPORT
## 01. PRODUCTS





# PRODUCTS

## HEPS

In order to evaluate the environmental performance of its products, Honda introduced the HEPS criteria. HEPS categorises three types of products which contribute towards Honda's ongoing efforts to reduce full life-cycle $CO_2$ emissions as follows:

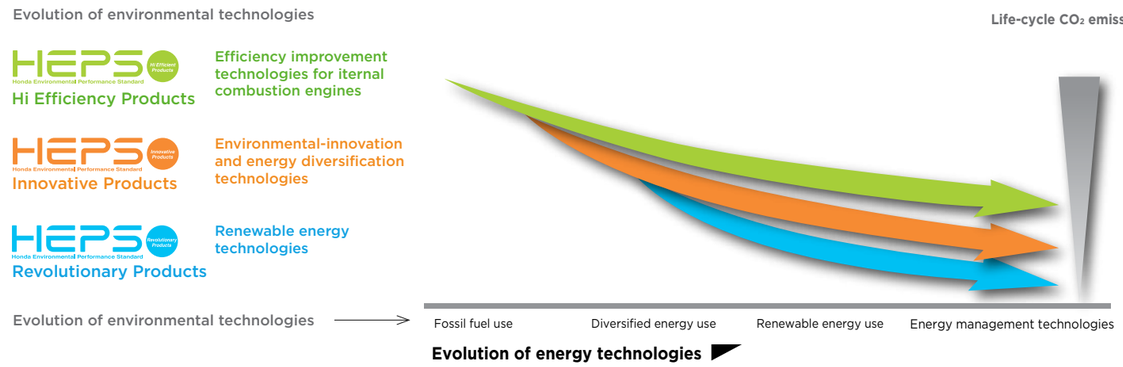
**Hi Efficiency products:** efficiency improvement technologies for internal combustion engines

**Innovative products:** environmental-innovation and energy diversification technologies

**Revolutionary products:** renewable energy technologies

Honda's ultimate goal is to make all of its products HEPS compliant.

### Product-based scenarios for addressing climate change and energy issues



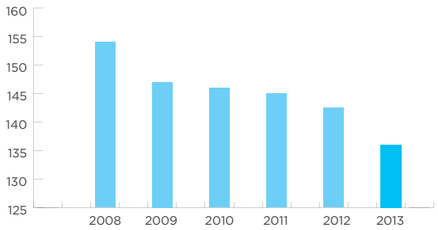

Based on this definition, 65 Honda models come under at least one of these categories in Europe. Examples of some of these models can be found on the pages to follow.*

* Not all of these models are commercially available

# Cars

## Average $CO_2$ Emissions

Average $CO_2$ Emissions




Average $CO_2$ emissions across Honda cars continue to fall due to the addition of further Hi Efficiency products to the range. Most notably, this year saw the introduction of the Civic Tourer 1.6 i-DTEC and CR-V 1.6 i-DTEC in Europe, utilising the first diesel engine from Honda's Earth Dreams Technology powertrain series.

The introduction of these additional two models featuring the 1.6 i-DTEC Earth Dreams Technology engine, following the continued success of the Civic 1.6 i-DTEC five-door, increased the number of Honda cars that fall into the Hi Efficiency products category, helping to meet both increasing customer demand for high fuel efficiency in vehicles and preparing for the tough emissions regulations which come into force in the region during 2020.

The Jazz Hybrid and Insight both utilise Honda's hybrid technology, placing them in the Innovative products category, while the FCX Clarity, Honda's fuel cell electric vehicle which is currently being tested and demonstrated in Europe, represents both an Innovative and Revolutionary product.

Car models per HEPS category


## Examples of 2013 Car models

### Hi Efficient Products

CR-V 1.6 i-DTEC

Civic Tourer 1.6 i-DTEC

### Innovative products

Jazz

Insight

### Revolutionary Products

FCX Clarity





**CASE STUDY**

**Lightest in class 1.6 i-DTEC engine extended to Civic Tourer and CR-V**

Following the successful introduction of the next generation Earth Dreams Technology 1.6 i-DTEC engine in the Civic five-door during 2012, this extremely efficient engine was extended to the new Civic Tourer and CR-V this year.

Despite being a wagon that delivers class-leading trunk space, the Civic Tourer 1.6 i-DTEC achieves competitive power (120 PS) and torque (300Nm), whilst maintaining excellent fuel efficiency of 3.8l/100km on the combined cycle. This gives the Civic Tourer a range of 1,315 km on one tank of fuel and $CO_2$ emissions from just 99g/km.

The new CR-V 1.6 i-DTEC delivers the optimum balance between the efficiency and performance of a car and the functionality of an SUV. With consumers' continued desire for lower cost motoring, the demand for two-wheel drive diesel SUVs has grown and now represents over a quarter of the total C-SUV market in Europe. The new CR-V 1.6 i-DTEC meets this demand with excellent fuel economy of 4.5l/100km, class leading $CO_2$ emissions of just 119g/km, while offering an impressive 300Nm of torque and 120 PS.

Both models feature Honda's Eco Assist system as standard. The system helps drivers to drive more efficiently, and is the result of research confirming that different driving styles could account for as much as a 15% variance in fuel economy. Additionally, manual transmission models benefit from Idle Stop technology as standard, saving up to an additional 5g/km of $CO_2$ for the 1.6 i-DTEC engine.



"The key focus of our Earth Dreams Technology philosophy is to balance environmental efficiency with the dynamic performance expected of a Honda. It is important that our cars are fun to drive."

"This is a new approach from the ground up. There were no benchmarks for us because those targets would have been too low. We were determined to establish a benchmark of our own that our competitors would have to follow."

**Tetsuya Miyake, Chief Engineer, 1.6 litre I-DTEC**



**CASE STUDY**

Honda FCEV Concept hints at what the future holds

Further underlining Honda's commitment to leadership in the development of advanced technology, the FCEV Concept model was unveiled during FY2013. Sleek and aerodynamic, the Concept points to the potential styling direction of Honda's next-generation fuel cell electric vehicle which launches in the U.S. and Japan in 2015, followed by Europe.

Showcasing exciting and modern styling, the FCEV Concept features the world's first application of a fuel cell powertrain packaged completely in the engine room of the vehicle, allowing ample interior space and seating for five passengers; as well as flexibility in the potential application of fuel cell technology to multiple vehicle types in the future.

Significant technological advancements to the fuel cell stack have yielded more than 100kW of power output. Power density has increased by 60%, and the fuel cell stack size reduced by 33%, compared to the FCX Clarity. The next-generation Honda FCEV is anticipated to deliver a driving range of approximately 700km, according to Japan cycle (JC-08 mode) with a fast refuelling time of around three minutes at 70 MPa.

"Building on twenty years of fuel cell leadership with the FCX and FCX Clarity, the FCEV Concept sets the direction for our next-generation fuel cell vehicle and for future improvements in electric-drive technology.
While this car is a concept, it points towards a very real future."

**Thomas Brachmann, fuel cell Technology, Honda R&D Europe**

Honda Fuel Cell Firsts

- **2002** – FCX becomes the first U.S. EPA- and CARB-certified fuel cell vehicle
- **2002** – FCX becomes the world's first production fuel cell vehicle, introduced to the US and Japan
- **2003** – FCX becomes the first fuel cell vehicle to start and operate in sub-freezing temperatures
- **2005** - FCX becomes the first fuel cell vehicle delivered to an individual customer
- **2008** - Honda becomes the first manufacturer of a fuel cell vehicle built on a production line dedicated to hydrogen-powered, fuel cell vehicles
- **2008** - Honda becomes the first manufacturer to create a fuel cell vehicle dealer network

FCEV Concept







## Motorcycles

This year two new motorcycle models qualified for the Hi Efficiency category, taking the total number of HEPS models to 16.

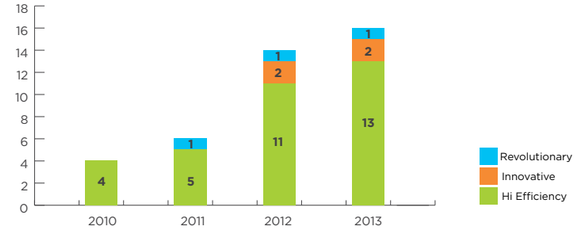
Fuel economy continues to be a significant priority for European motorcycle customers, a trend highlighted by a sustained move away from Super Sports models towards those with a broader appeal and range of usage. As such, the last six years has seen Honda focus even more closely on fuel consumption in development, beginning with the super-efficient 700cc engine.

FY2013 sees the CTX700 and SH Mode included in the Hi Efficiency category for motorcycles. The CTX700 delivers high torque and power, but with an emphasis on reducing friction and weight manages to return 27.9km/l (in WMTC mode). With a similar focus on weight and friction loss, and the addition of eSP (enhanced smart power), with Idle Stop engaged the SH Mode delivers an impressive 50km/l with a range of 275km possible from the 5.5 litre fuel tank; while still offering power output of 8.4kW @ 8,500rpm and torque of 12Nm @ 5,000rpm.

The Innovative products category for motorcycles sees the inclusion of the MSX125 and NC750S models. Compact, easy to ride and practical due to the use of full-sized motorcycle parts, the MSX125 was an instant worldwide success when it launched during FY2013. Designed for young riders, it features an economical low-friction engine based on that employed in the Wave 125i. Some 930,000 units of this engine have been produced since its introduction in 2003, winning it universal praise for fuel efficiency, ease of use and longevity. In the MSX125 it returns fuel economy of 65.7km/l.

The Revolutionary products category sees motorcycles represented by Honda's battery electric scooter, the EV-Neo. Emitting zero emissions while in-use, the EV-Neo uses a 2.8kw motor and Lithium-ion battery, giving a range of 34km at 30km/h on level ground on one charge. The EV-Neo is currently available to lease in Japan, and has been involved in demonstration trials with Barcelona City Council.

Motorcycle models per HEPS category




## Examples of 2013 Motorcycle models

### Hi Efficiency Products

CTX700

SH

### Innovative products

MSX125

NC750S

### Revolutionary Products

EV-neo

**CASE STUDY**

SH Mode 125 – Optimum efficiency with stand-out styling

Building on the success of the SH 125, Europe's top-selling scooter in the first half of 2013, the SH Mode set out to extend the appeal of this popular model amongst style-conscious young commuters. Available in three colours including a vivid Fabulous Pink, it boasts real stand-out appeal, an optimised riding position and easy control and acceleration for the urban rider.

While styling was an important consideration for the development team, fuel economy was also key. As such, the team took the SH125i engine and set about tailoring it specifically for the SH Mode 125, aiming to deliver well-balanced power delivery with flat, linear torque; ensuring optimum drivability in urban environments, and maximum fuel efficiency.

The basic architecture of the liquid-cooled four-stroke SOHC 2-valve engine - with eSP (enhanced Smart Power) - is built around a host of low-friction technologies working together to minimise fuel consumption and maximise output. Other enhancements contributing to achieving optimum efficiency include the radiator integrated into the engine to reduce weight, an electronic controlled ACG starter and a very efficient cooling system. The SH Mode 125 is also equipped with a three-way catalyser sited at the back of the exhaust pipe within the muffler. This location provides an ideal balance between performance and fuel efficiency, with improved exhaust purification and reduced CO, HC and NOx output.

With Idle Stop engaged fuel consumption of the SH Mode 125 is an impressive 50km/l with a range of 275km possible from the 5.5 litre fuel tank; while still offering power output of 8.4kW @ 8,500rpm and torque of 12Nm @ 5,000rpm.

SH Mode 125

NC750S

**CASE STUDY**

NC750S – Bigger on power, bigger on efficiency

Launched in 2012 as a brand new user-friendly naked model which was affordable to buy and run, the NC700S quickly became a firm favourite as an everyday all-rounder.

FY2013 saw the arrival of the next evolution of the NC range, the NC750S, offering a larger engine with an additional 75cc, more power and torque, taller gearing and a longer stroke; ensuring a punchy performance particularly in low to mid-range.

Despite this huge step up in performance the NC750S still delivers incredible fuel economy, superior to even that of the NC700. Clean combustion is ensured thanks to an O2 sensor within the exhaust which allows the PGM-FI system to deliver the optimum balance of fuel/air to ensure clean burn; while a revised high absorption catalyser is located closer to the engine, allowing it to reach operating temperature more quickly from cold start.

Every effort has been taken to keep the number of parts to a minimum in order to reduce weight. The model features just one 36mm throttle body, and, where possible, components are made to do more than one job; for example the camshaft drives the water pump, while one of the balancer shafts drives the oil pump.

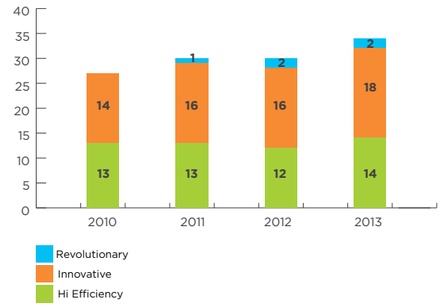
In the NC750S Honda has delivered one of the most useful, affordable, high performance naked motorcycles in its class, but with fuel consumption of just 28.9km/l (in WMTC mode); allowing a range of more than 400km on one tank of fuel.





## Power Equipment

Power Equipment Models per HEPS Category




Honda's continued commitment to the development of advanced engine technologies sees one generator and two engines represent power equipment in the Hi Efficiency category. The EU30i features Honda's patented inverter technology, and a sensor which quickly responds to load applied by adjusting power output up and then back down to idle as required; delivering both optimum performance and fuel efficiency.

The GX390 and GX690 engines have been developed to meet the strictest emissions regulations in the world. Fuel consumption has been improved through changes to the design and specification of the piston and piston ring and adjustment of the ignition timing. The new models are significantly quieter and more efficient than their predecessors, delivering the same performance and output but with a 20% reduction in HC (hydrocarbon) and NOx (nitrogen oxide).

The Innovative products category for power equipment sees the inclusion of Honda's core marine engine range from the BF40 up to its largest, the BF250. With all of these engines now benefitting from the integration of Honda's proprietary engine technologies including BLAST™ and ECOmo ™ (see case study below for further explanation), they deliver the optimum balance of power, performance and fuel efficiency.

Honda's combined heat and power unit, MCHP, also appears in the Innovative products category. Sold in Germany in 2013, this next-generation home energy system runs on gas; generating both heat and electricity for the home. Electricity generated but not consumed by the household can be sold back to the grid.

The Revolutionary products category for Power Equipment features Miimo, an autonomous lawnmower - Honda's first commercial robotic product. Miimo runs on electricity, creates no environmental waste through cuttings – as these are fed back into the grass root system to act as a natural fertiliser – and is quiet enough to run at night without disturbing anyone.

### Examples of 2013 Power Equipment models

#### Hi Efficiency Products

EU30i

GX390

GX690

#### Innovative products

BF40-250

iGX390

MCHP1.0

#### Revolutionary Products

Honda Miimo

HR370

**CASE STUDY**

New BF80 and BF100 marine outboards - setting new levels of efficiency and performance

Making their world debut at the Southampton International Boat Show (UK) in September 2013, the new BF80 and BF100 set new standards for efficiency and performance in their sectors. With a lightweight and compact design they offer optimum levels of performance while ensuring best fuel economy, utilising many of the unique advanced engine technologies for which the Honda brand is renowned:

**BLAST™** (Boosted Low Speed Torque)

Honda's exclusive revolutionary BLAST™ technology adjusts air/fuel ratio and ignition-timing to boost engine horsepower and torque to provide rapid acceleration. This patented technology in four-stroke engines is the benchmark for Honda outboards.

**ECOmo ™** (Economy Controlled Motor)

Honda's proprietary Lean Burn Control technology uses sensors to monitor air/fuel ratio in cruising mode, adjusting it to achieve optimum fuel economy. Combined with Honda's unique PGM-Fi™ (Programmed Fuel Injection) technology, the result is high fuel efficiency and low emissions. A unique 'Eco Light' on the gauge informs the operator when the engine is in ECOmo/lean burn mode, and therefore at its most fuel efficient.

**VTEC ™** (Variable Valve Timing and Lift Electronic Control)

The new BF100 incorporates Honda's exclusive VTEC™ system, providing optimum performance through the operating range, delivering smooth controlled power when it's needed.


BF100

# EUROPEAN REPORT
## 02. PURCHASING



## PURCHASING

*Introduction by Jason Smith*

Jason Smith
Director Purchasing, Finance and Quality
of Honda of the UK Manufacturing Ltd.

Honda purchases a large number of parts for products from suppliers within its supply chain. Therefore a high level of cooperation with suppliers is essential in order to reduce the environmental impact at every stage in products' life cycles. To unify efforts towards this objective, Honda has created the 'Global Environmental Vision for Purchasing'; connecting its worldwide network of materials and parts suppliers in a concerted effort to reduce the overall environmental impact of operations, right back to the extraction of raw materials.

### Explanatory Note

Following a directive from Honda's Global President & CEO, Takanobu Ito, in 2009, stating that Honda must reduce greenhouse gas emissions from a product life cycle perspective, Honda began collecting the relevant data from its suppliers globally.

A new data management system was introduced at the beginning of FY2013 to enable Honda's suppliers to provide emissions data. The greenhouse gas emissions data collected in FY2013 will be set as the baseline for reduction activities in future years. To support this, Honda Motor Europe has also joined Honda's Inter-Regional Environmental Purchasing Committee. This committee provides a platform for different regions to share both environmental management and greenhouse gas reduction methods, in an attempt to further enable each other to improve the effectiveness of environmental activities.

Since the management system has now been launched and the baseline data collected, data will be published from the FY2014 reporting period onwards. The focus will also expand to include the promotion of energy efficient measures and activities that will reduce the amount of greenhouse gases emitted within Honda's supply chain.

### Environmental Management in the Purchasing domain

**Global Environmental Vision for Purchasing**

As displayed in the diagram on the right, the Honda Global Environmental Vision expresses Honda's desire to reduce the Environmental impact of our suppliers worldwide.

Honda has translated this aim into a policy called the 'Honda Green Purchasing Guidelines', and a three-step action plan called the 'Grand Environmental Design for Purchasing', both of which are shared with, and implemented by, Honda's suppliers.


Figure 1: Honda's Environmental and Safety Vision

**Honda Green Purchasing Guidelines**

The revised Honda Green Purchasing Guidelines were published in 2011. The intention of these guidelines is to strengthen business relationships with suppliers in an attempt to reduce greenhouse gas emissions and other environmental impacts through the sourcing of low-impact materials and parts from low-impact activities. The addition of 'environment' to the list of Honda's metrics used to evaluate suppliers quality, cost, delivery, and development will also support this ambition.

| | | |
|---|---|---|
| Policies | | ● Promote purchasing of environmentally responsible products<br>● Add an environment category to supplier evaluations (quality, cost, delivery, development) |
| Control items | Management | Build environmental management systems for products and in every domain of our business activities |
| | Operations | Manage environmental impacts in every domain (e.g., GHG emissions) |
| | Products | Propose products that improve fuel efficiency |
| | | Control substances of concern |
| Applies to: | | All suppliers worldwide |

Figure 2: Revised Green Purchasing Guidelines 2011

**Grand Environmental Design for Purchasing**

Honda has established a Grand Environmental Design for the realisation of this low-carbon global supply chain, and is promoting initiatives through the following three steps:

1. Communicate Honda's environmental policies
2. Make preparations to manage greenhouse gas emissions reduction
3. Reduce greenhouse gas emissions

# EUROPEAN REPORT
## 03. IN-HOUSE PRODUCTION



## IN-HOUSE PRODUCTION

*Introduction by Soichiro Takizawa*

Soihiro Takizawa
Managing Director of Honda of the UK Manufacturing Ltd.

Honda continues to work to minimise the impact of its manufacturing on the global environment, to improve associates' working environment, and to enhance cooperation with local communities. Honda wants local communities to be proud of its factories, and so it strives to realise the ideal of manufacturing products with the smallest environmental footprints in the most environmentally-responsible plants.

Honda operates six manufacturing facilities in Europe. Its efforts in minimising the environmental impact of manufacturing operations include reducing the energy intensity of production, initiatives to use water and other natural resources more efficiently, and reducing $CO_2$ emissions and waste generation.

I am proud to report that once again we have realised the ideal outcome of zero waste to landfill across all of our manufacturing facilities. This is the third consecutive year we have managed to achieve this exceptional result in our production facilities for cars, motorcycles and power equipment; and the second consecutive year for parts production. Additionally, Honda of the UK Manufacturing Ltd (HUM) in Swindon, UK, celebrated a significant milestone during FY2013, reducing its waste to incineration without energy recovery to zero, realising its ambition to become a 100% Recycling Plant by 2014.

## Explanatory Note

The data included within this report has been collected based on the following collection and calculation rules:

Energy data related to direct energy consumption (as being primary energy sources as purchased and used by the reporting organisation, including natural gas, fuels from distilled crude oil, or from other renewable resources) and indirect energy consumption (through purchasing of electricity, heat and steam from fossil, nuclear or renewable sources and as used within the respective sites).

Energy used is derived from meter readings and invoices from energy suppliers. Where conversion is required, the conversion rate is applied as based on:

1. the information provided by the energy supplier, or, if not available:
2. national standard conversion values, or, if not available:
3. international conversion factors
4. calculations based on chemical conversions

For the conversion to $CO_2$ equivalents the following priority of conversion factors is used:

1. the information provided by the energy supplier, or, if not available:
2. national sector standard conversion values, or, if not available:
3. national standard conversion values, or, if not available (GHG Protocol country data):
4. international conversion factors (GHG Protocol data)
5. calculations based on chemical conversions (only applicable for primary energy resources)

These rules apply per site. Site data is consolidated after conversions.

To make the performances comparable we normalise the values:

For cars, motorcycle and power equipment production sites and transport: per unit output

For parts production and transport: per turnover (referring to base year data = 100%)

For logistics sites and for offices: per area ($m^2$) building

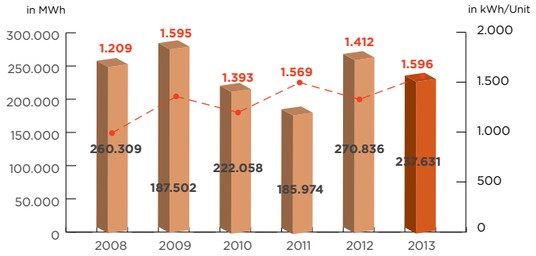
# Car Production

## Scope

Honda has two factories producing cars in the region: Honda of the UK Manufacturing Ltd (HUM) and Honda Turkiye A.S. (HTR).

## Energy

### Energy Conumption for Car Productions



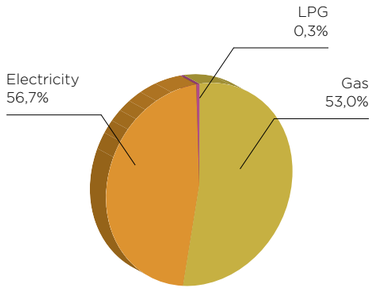

Total energy consumption in car production during FY2013 fell due to a reduction in production volumes and a mild winter period compared to that of FY2012. However, energy consumption per produced car has increased as a result of reduced overall production volumes, leading to lower efficiencies created by economies of scale.

Total Energy
Energy/Unit

* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas

## Energy by Source

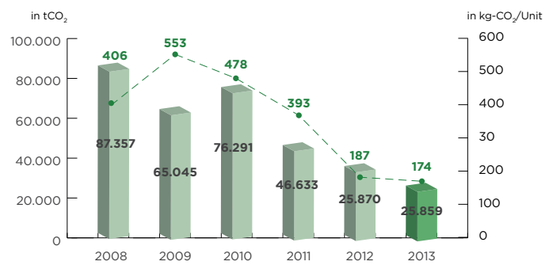
The split in energy source between gas, electricity and LPG in car production remains stable compared to last year.




* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas.

## $CO_2$ Emissions

### $CO_2$ Emissions for Car Production




Despite energy consumption per unit increasing as a result of reduced production volumes, Honda continues to reduce both total and per unit produced $CO_2$ emissions. This has been achieved largely through the continued purchase of certified $CO_2$-free electricity and the increased use of solar energy from the on-premises solar cell array at HUM. Additionally, HTR begun to purchase hydro-powered electricity from its energy supplier during this period.

Total $CO_2$-Emissions
$CO_2$-Emissions/Unit

* From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity

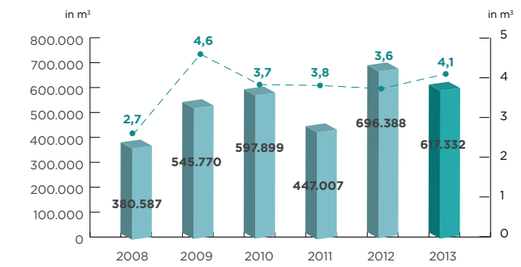




## Water

Overall water usage has fallen due to lower production volumes, while consumption per unit produced has remained stable, but with a slight increase, compared to last year.

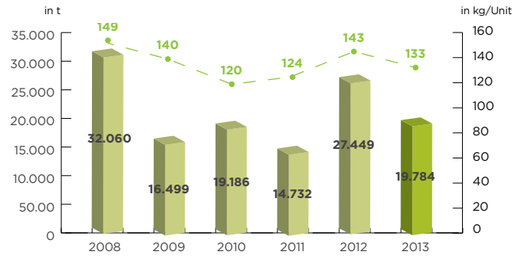
### Water Usage




Total Water Usage
Water Usage/Unit

## Waste

### Waste for Car Production




Total waste from car production fell during the period due to a decrease in production volumes, although, notably, waste per unit also fell compared to last year.

Total Waste
Waste/Unit

**CASE STUDY**

Honda Turkiye A.S.(HTR) – Reducing wastage of white paint

In FY2013, more than 75% of the cars produced at HTR were painted white. As such, paint circulated within the paint line, but the variable ambient temperature in Turkey resulted in the temperature of the paint varying throughout the day, between 16°C and 28°C. The optimum application temperature of the paint is 24°C, meaning that these temperature fluctuations led to considerable wastage of white paint and paint sludge.

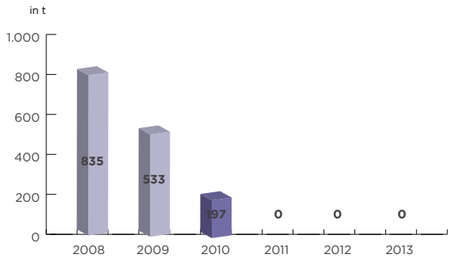
This year, a heat exchanger was fitted to the paint line to maintain a constant paint temperature of between 23-25°C; with heating provided by a 50-litre hot water tank and cooling by an existing supply chiller unit. This has led to significant reductions in paint sludge (-3134 kg), waste drum (-846 kg) and Stack Gas Emission (VOC)* (-0.4g/m ). Paint consumption per car has also decreased. The return on the investment of this initiative was realised in just two months.

*Volatile Organic Compounds



## Waste to landfill

Waste to Landfill for Car Production




For the third consecutive year Honda made the significant achievement of zero waste to landfill from car production at HUM and HTR. Additionally, HUM marked another milestone this year, reducing its waste to incineration without energy recovery to zero, realising its ambition to become a 100% Recycling Plant by 2014.

**CASE STUDY**

Honda of the UK Manufacturing Ltd. (HUM) – Becoming a '100% recycling factory'

HUM set a policy of becoming a '100% recycling factory' by 2014. However the situation at the time saw 2% of non-metal based waste sent to incineration without energy recovery, meaning that this target could not be met.

Associates evaluated waste streams that were being sent to incineration without energy recovery or other re-use/recycling routes and identified that MIG welding dust was the only waste classified as 'for incineration-only' disposal. In January 2014, an agreement was therefore made between HUM and a local metal recycling facility to recycle MIG dust as a low grade metal waste stream. As a result, all HUM waste is now sent for re-use, recycling or incineration with energy recovery; meeting a key legal measure of the EU's Waste Framework Directive and achieving HUM's goal to become a 100% recycling plant by 2014.


**The waste hierarchy is a cornerstone of the EU's Waste Framework Directive** which forms the basis of UK Waste Regulations as set out in the Waste (England and Wales) Regulations 2011.







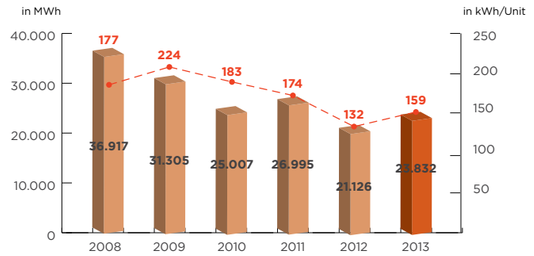
# Motorcycle Production

## Scope

Honda has three factories producing motorcycles in the region: Montesa Honda S.A. (MHSA) in Spain, Honda Italia Industriale S.P.A. (HII) in Italy and Honda Mfg. (Nigeria) Ltd. (HMN).

## Energy

Energy Consumption for Motorcycle Production

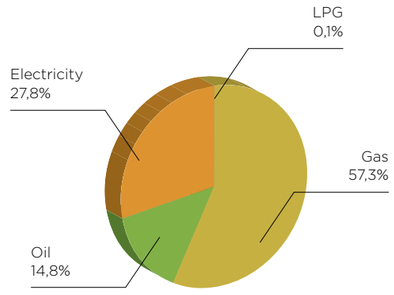



* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas

Energy consumption increased both overall and per unit due to a slight increase in production volumes in MHSA and HII. Although production volumes fell in HMN, energy usage did not fall in-line due to changes to the model line-up and increased internal logistics operations.

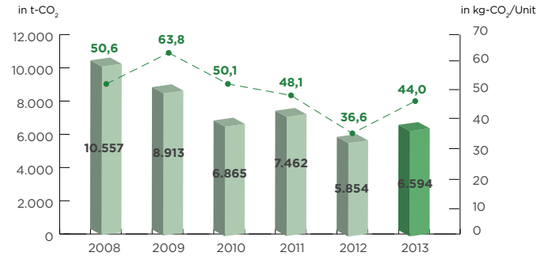
## Energy by Source

The share of both electricity and oil usage has increased compared to last year largely due to the fall in production volumes at HMN.




## $CO_2$ Emissions

$CO_2$ Emissions for Motorcycle Production



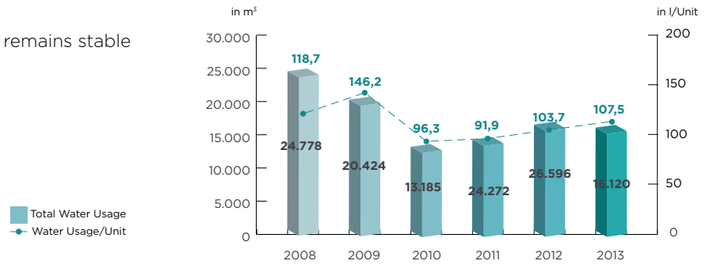

*From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity

Both overall and per unit emissions in motorcycle production have increased, directly in-line with the rise in energy usage.

## Water

Water consumption for motorcycle production remains stable compared to last year.

Water Usage for Motorcycle Production




* Data affected by late delivery invoices from water supply company at the Atessa plant

**CASE STUDY**

Montesa Honda S.A. (MHSA) – Recycling rain water for irrigation

The Honda Institute for Safety area at MHSA uses considerable amounts of water to wet the ABS testing and off-road course, to irrigate the garden and for domestic use. A 300 $m^3$ harvesting tank has now been installed to collect rain water from half of the roof surface of the Honda Logistics Centre Spain building; resulting in 20% lower water consumption for the facility during FY2013. The water saving here is also reflected in the graph for water usage in parts production.

BEFORE

AFTER





## Waste

Waste for Motorcycle Production

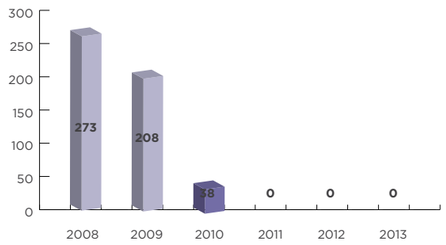

* From 2010 onwards data accuracy has been improved by including packaging waste in the Nigeria plant

Overall waste volumes for motorcycle production remain stable compared to last year despite a minor increase in volume at the HII plant.

## Waste to landfill

For the third consecutive year Honda has made the significant achievement of zero waste to landfill in motorcycle production.

Waste to Landfill for Motorcycle Production



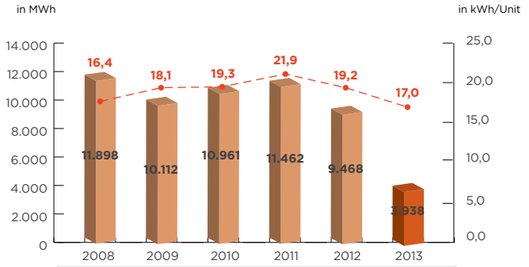
# Power Equipment Production

## Scope

Honda has two factories producing power equipment products in the region: Honda France Manufacturing S.A.S. (HFM) and Honda Italia Industriale S.P.A. (HII).

## Energy

### Energy Consumption Power Equipment Production



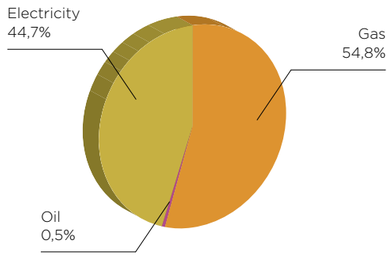

* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas

During 2013, a substantial amount of production was moved from HII to the United States, resulting in an 85% reduction in activity at HII. Overall energy consumption has therefore fallen in-line with this change. Energy consumption per unit produced fell during the period as the result of increased production volumes at Honda's lawn mower plant, HFM.

Total Energy
Energy/Unit

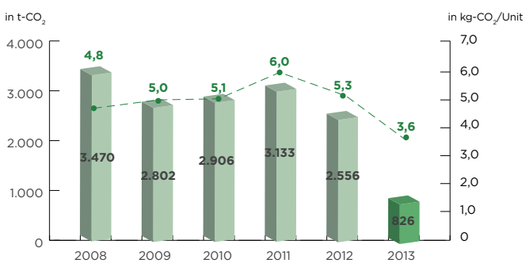
## Energy by Source

This year saw a minor shift in the energy mix towards gas for power equipment production.




## $CO_2$ Emissions

### $CO_2$ Emissions for Power Equipment Production




* changes from 2012 onwards: by data accuracy improvement, actual onsite energy value for gas are used.

With the transfer of a significant amount of production activity from HII to the United States, $CO_2$ emissions also fell, in-line with the resulting reduction in energy usage.

Total $CO_2$-Emissions
$CO_2$-Emissions/Unit





## Water Usage

Total water consumption for power equipment production remained stable compared to last year due to the fact that water consumption is largely linked to painting operations, which are independent of production volumes. However, looking at the consumption per unit, it has increased due to lower efficiencies as a result of the reduction in production volume.

### Water Usage for Power Equipment Production


* Data affected by late delivery invoices from water supply company at the Atessa plant

Total Water Usage
Water Usage/Unit

## Waste

### Waste for Power Equipment Production



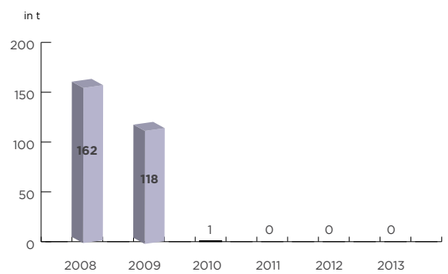

The overall amount of waste generated in power equipment production also fell in-line with reduced production volumes as a result of the shift of activities from HII to the United States.

Total Waste
Waste/Unit

## Waste to landfill

As with car and motorcycle production, power equipment production acheived zero waste to landfill for the third consecutive year.

### Waste to Landfill for Power Equipment Production



**CASE STUDY**

Honda Italia Industriale S.P.A. (HII) - Improving efficiency of lighting

During FY2013 HII made efforts to reduce energy consumption from both interior and exterior lighting. Inside the factory it has 500 light fittings, each using a 400 watt bulb. In an attempt to reduce energy consumption, Associates carried out a feasibility study looking at alternative options, concluding that a switch to more efficient LED lights would deliver considerable benefits. During FY2013, 189 bulbs were changed to 160 watt LED alternatives, resulting in an estimated energy saving of 93,000 kWh/y and a $CO_2$ emissions saving of 39,000 kg/y. The initiative will provide a return on investment in three to four years.

Previously all 110 external lights at HII were switched on unnecessarily during the night, resulting in significant energy wastage. During FY2013 HII therefore updated its electrical equipment - dividing one power line into two and installing a timer in each electric panel to switch off 55 of these lights when they were not needed. The change resulted in a 50% reduction in energy used, an annual saving of 80,000 kWh of electricity and a yearly reduction in $CO_2$ emissions of 34,000kg. The initiative will provide a return on investment in just one year.

OUTDOOR LIGHTING - ACTUAL SITUATION

OUTDOOR LIGHTING - FUTURE SITUATION

**ENERGY REDUCTION: AROUND 80,000 kWh**





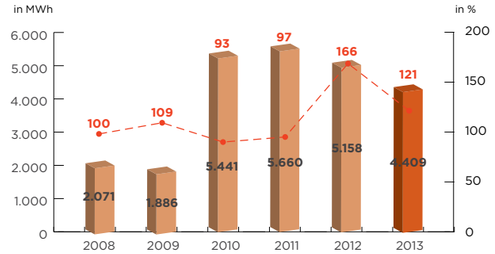
# Parts Production

## Scope

Honda has two factories producing parts in the region: Montesa Honda S.A. (MHSA) in Spain and C.I.A.P. S.P.A. (CIAP) in Italy.

## Energy

Energy Consumption for Parts Production



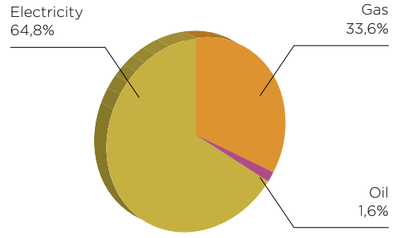

* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas

Continuous improvements in energy management have resulted in further reductions to overall energy consumption for parts production. Despite a fall in production volume, efficiency improvements have also resulted in a decrease in energy consumption per unit produced.

Total Energy
% wise change (turnover based)

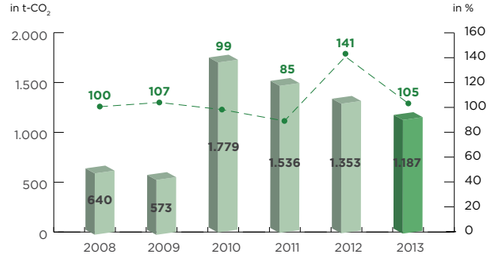
## Energy by Source

During 2013 the energy mix saw a shift away from gas, with gas consumption reduced by 16% compared to last year.




## $CO_2$ Emissions

$CO_2$ Emissions for Parts Production




* changes from 2012 onwards: by data accuracy improvement, actual onsite energy value for gas are used.

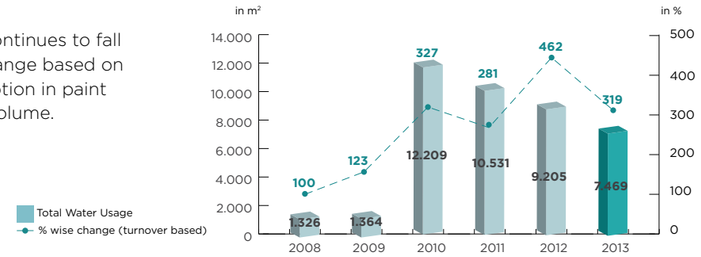
$CO_2$ emissions in parts production fell during the period, in line with reduced energy consumption.

Total $CO_2$-Emissions
% wise change (turnover based)

## Water Usage

Water consumption in absolute figures ($m^3$) continues to fall year by year. Instability in the percent-wise change based on turnover is the result of a fixed water consumption in paint operations and the fluctuation in production volume.

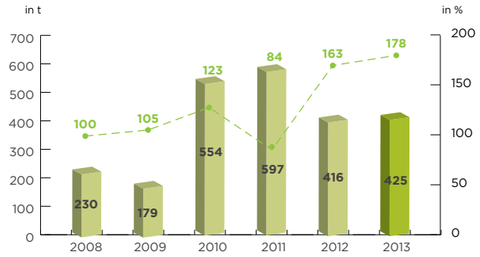
Water Usage for Parts Production




* Data affected by late delivery invoices from water supply company at the Atessa plant

## Waste

Waste for Parts Production



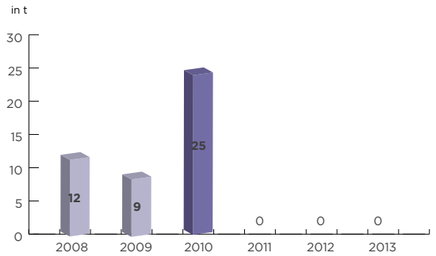

Waste generated in absolute figures (Tonnes) remains stable at the same level of last year after achieving a reduction in packaging waste. The minor increase in the percent-wise change based on turnover is the result of a reduction in production volume.

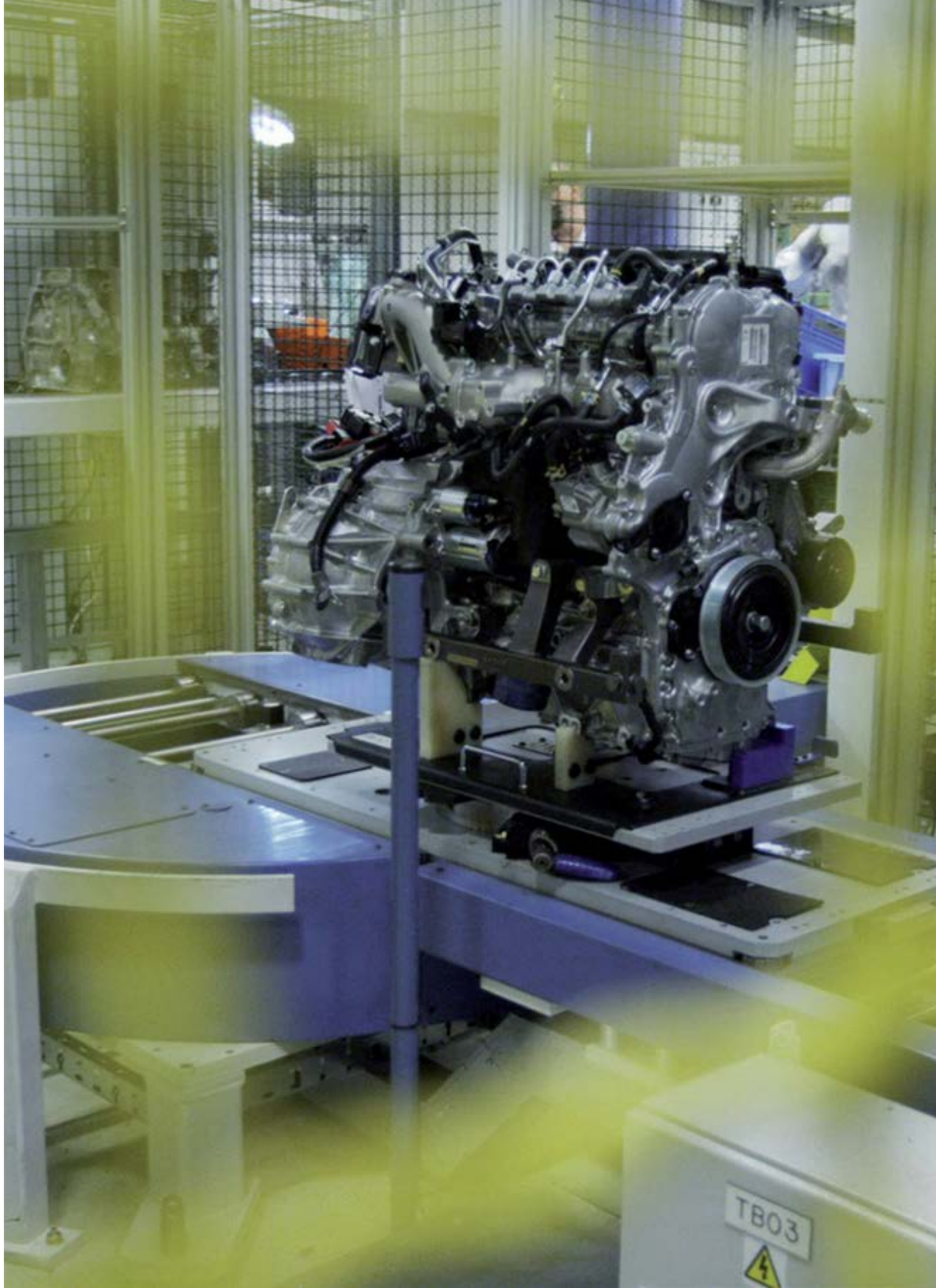
Total Waste
% wise change (turnover based)

## Waste to landfill

For the third consecutive year Honda achieved zero waste to landfill from parts production.

Waste to Landfill for Parts Production



# EUROPEAN REPORT
## 04. LOGISTICS



## LOGISTICS

*Introduction by Koji Yamaguchi*

Koji Yamaguchi
President of Honda Motor Europe Logistics

Honda continues to take steps across Europe to minimise the environmental impact of its logistics operations by working closely with its transport partners to optimise routes, resulting in fewer journeys and optimum truckload efficiency.

While we will continue in these efforts moving forward, we will also monitor the use of Euro 6-compliant trucks by our transport partners closely.

### Explanatory Note

For logistics the following data is included:

- Logistics inbound - transport from manufacturing sites in Europe (or the arrival port for deliveries outside the region) to Honda storage facilities
- Logistics outbound - transport from Honda storage facilities to dealers and transport to the border of its regions
- Transport between Honda storage facilities

For logistics outbound, the data provided here covers distribution to dealers in countries which have a Honda-controlled importer. As this distribution is carried out by third parties, the distance travelled in country to deliver a product to the dealer is estimated based on the number of required trucks and the surface of the country or considered area.

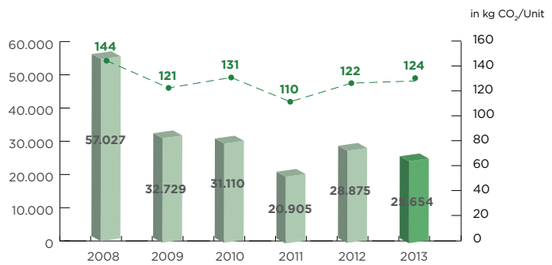
## Car Transport

### Scope

For car transport, the figures within this report cover all transport organised by Honda entities. The limitations and estimation methods are described in the explanatory note.

### $CO_2$ Emissions in $CO_2$

$CO_2$ Emissions for Car Transport




Total $CO_2$ emissions for car transport fell during the year as the result of optimised transport routes. Per unit emission levels increased due to lower transport volumes, resulting in a loss of truckload efficiency.

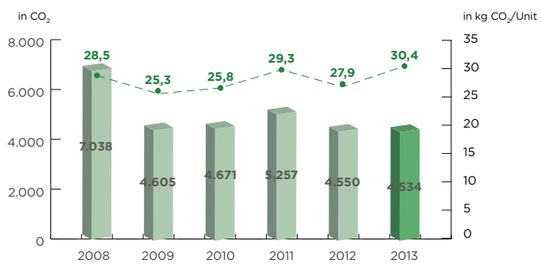
## Motorcycle Transport

### Scope

For motorcycle transport the figures contained within this report cover all transport organised by Honda entities. The limitations and estimation methods are similar to those in car distribution, as described in the explanatory note.

### $CO_2$ Emissions

$CO_2$ Emissions for Motorcycle Transport




Overall $CO_2$ emissions for motorcycle transport have reduced slightly year on year as a result of changes in stock levels.

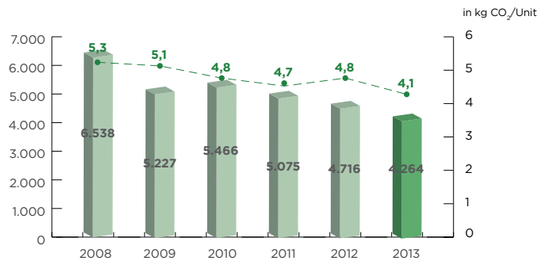
## Power Equipment Transport

### Scope

Only Honda-controlled transport is included in the data within this report. Contradictory to the situation with cars and motorcycles logistics, it often happens that full truckloads, particularly of engines, are delivered directly to the purchaser. This process delivers improvements in both efficiency and service.

### $CO_2$ Emissions

$CO_2$ Emissions for Power Equipment Transport




Overall and per unit $CO_2$ emissions for power equipment transport have fallen due to improved truckload efficiency resulting from increased volumes.





## Parts Transport

### Scope

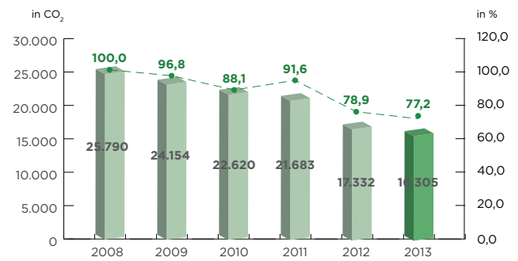
For parts transport the following data is included:

- Logistics inbound - transport from manufacturing sites in Europe (or the arrival port for deliveries outside the region) to Honda storage facilities
- Logistics outbound - transport from Honda storage facilities to dealers
- Transport between Honda storage facilities

The reference value in the parts business is financial turnover rather than per unit. However, as turnover is not a tangible data set, for the purposes of reporting a baseline of 100% was set in 2008, against which Honda has compared data since.

### $CO_2$ Emissions

$CO_2$ Emissions for Parts Transport




Overall and per unit $CO_2$ emissions for parts transport continue to fall as the result of a complete restructuring of supply routes. Both inbound and outbound routes have been optimised for maximum efficiency, with journeys between European storage facilities kept to a minimum in order to achieve optimum truckload efficiency.

**CASE STUDY**

Reducing the need for cardboard and plastic packaging

Honda's European logistics centres distribute parts across the region. Previously orders were packed and wrapped in cardboard boxes then sent individually, leading to considerable waste and inefficiencies in transport. To counter this, reusable plastic tote boxes have now been introduced across Honda's logistics network, with orders now grouped by region. Orders are now only fulfilled once a full load is achieved at the logistics centre. As a result, cardboard consumption has fallen by 55 tons each year, tape and plastic wrapping are no longer needed for packing, and there is no waste packaging to dispose of on receipt of an order. Optimum truckload efficiency has also been achieved as trucks only leave the logistics centre when fully loaded.

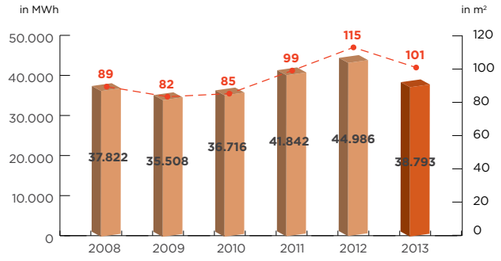
# Warehousing

## Scope

Honda has an extensive network of dealers in Europe. To provide continuous, fast and efficient delivery of products and parts, it runs several warehouses in the region. The data provided here includes the in-house energy consumption of these warehouses; largely from heating, lighting and cooling.

## Energy

Energy Consumption for Warehousing



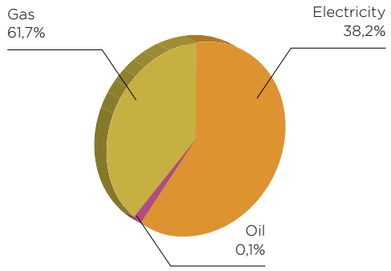

* From 2012 onwards data accuracy has been improved by using actual onsite energy values for gas

Milder weather conditions during winter period resulted in reduced need for heating. This added to increased associate awareness, resulted in less energy consumed (-13%).

Total Energy
Energy/m²

## Energy by Source

As a result from the above, gas used for heating, is representing a smaller part in our total energy mix







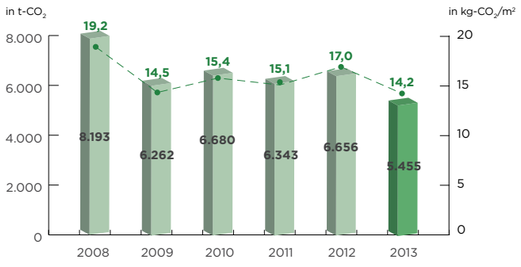

**CASE STUDY**

Honda Belgium Factory N.V. – turning down the heat

By reducing the hot water temperature in its administration and prepack buildings from 75°C to 65°C and insulating hot water tubes in the prepack building, Honda Belgium Factory N.V has successfully reduced its overall gas consumption.


## $CO_2$ Emissions

$CO_2$ Emissions for Warehousing




* changes from 2012 onwards: by data accuracy improvement, actual onsite energy value for gas are used.

Continuous counter-measures to improve energy efficiency as described in the case study above have contributed in reduced $CO_2$ emissions in our warehousing operations (-19%).

Total $CO_2$-Emissions
$CO_2$-Emissions/m²

# EUROPEAN REPORT
## 05. SALES & SERVICES



## SALES & SERVICES

*Introduction by Philip Ross*

Philip Ross
Senior Vice President, Honda Motor Europe

Honda continues to proactively promote environmental activities in the sales and service domain. Through these efforts, we can continue to contribute to reducing energy consumption and emissions in the areas in which we operate.

### Explanatory Note

During FY2013 Honda has improved data collection accuracy through its own environmental data collection system, increasing accuracy by considering on-site conversion factors. Additionally, we have expanded the scope of sales subsidiaries to include regional financial services.

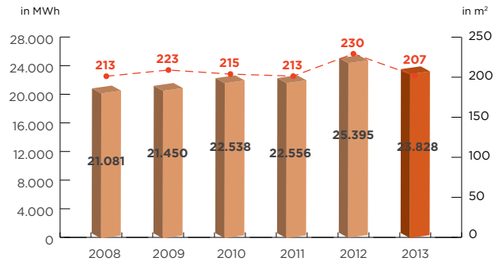
## Sales Subsidiaries

### Scope

The data reported includes only consolidated Honda sites. Due to organisational changes the number of subsidiaries differs from last year.

### Energy

Total Energy National Sales Offices



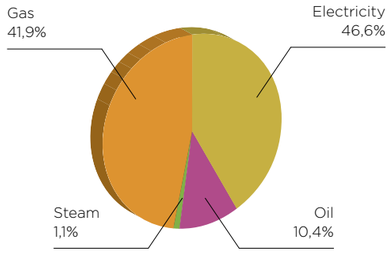

* From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity. Retroactive data from two additional sites have also been added: Honda Bank of Germany and Honda Finance Europe.

Despite an increase in the number of locations compared to last year, overall energy consumption for national sales offices has remained stable, largely the result of a milder winter in Europe compared to 2012.



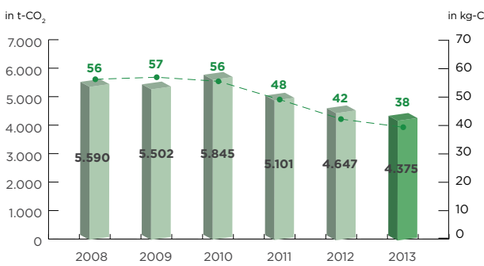
## Energy by Source

The energy mix for national sales offices shows a reduction in the use of fossil fuels (oil and gas), in favour of electricity and steam.




## $CO_2$ Emissions

### $CO_2$ Emissions for National Sales Offices




* From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity. Retroactive data from two additional sites have also been added: Honda Bank of Germany and Honda Finance Europe.

The continued policy of purchasing certified renewable energy has resulted in total $CO_2$ emissions from national sales offices falling once again this year, with a 37% reduction achieved compared to the base year of 2008.

Total $CO_2$-Emissions
$CO_2$-Emissions/m²







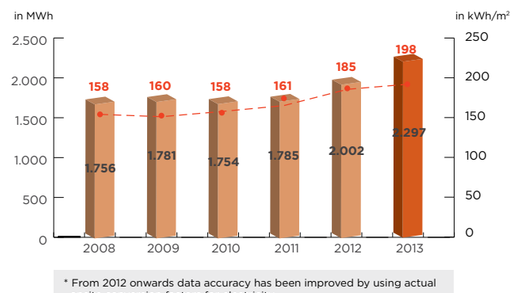
# Dealers

## Scope

This report only includes six consolidated Honda dealer sites in Switzerland, owned by Honda's Swiss sales subsidiary. Three dealers newly established in Germany are out of the scope of this report.

## Energy

### Energy Consumption for Dealers



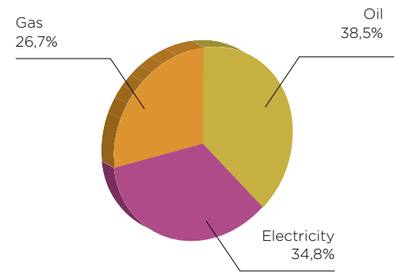

* From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity.

Due to organisational changes including the inclusion of an additional location, in the data we see an increase in overall energy consumption across dealer sites. The increase per floor surface relates to a correction from last year's data and the increased use of a carwash facility at one dealer site.

Total Energy
Energy/m²

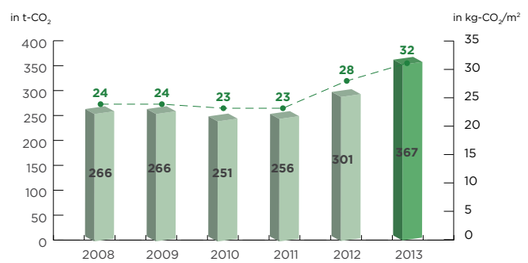
## Energy by Source

The energy mix for dealers shows a larger share for oil compared to last year. This is the result of the additional site accounted for in this year's data using oil to heat its premises.




## $CO_2$ Emissions

### $CO_2$ Emissions for Dealers




Overall and relative $CO_2$ emissions for dealers have increased as the result of the additional site accounted for in this year's data, and the fact that it is using oil to heat its premises.

Total $CO_2$-Emissions
$CO_2$-Emissions/m²

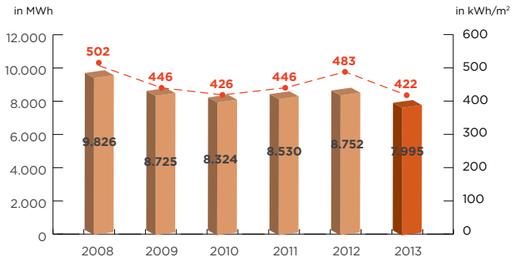
# Research and Development (R&D)

## Scope

This report consolidates data from Honda's Research & Development entities in the region.

## Energy

Total Energy R&D

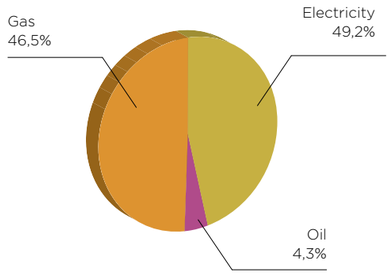



* From 2012 onwards data accuracy has been improved by using actual onsite conversion factors for electricity. Retroactive data from two additional sites have also been added: Honda Bank of Germany and Honda Finance Europe.

Energy consumption in R&D facilities fell due to organisational changes within Honda's UK and Italian based R&D facilities. Gas consumption fell in the period due to the relatively mild winter compared to FY2012.

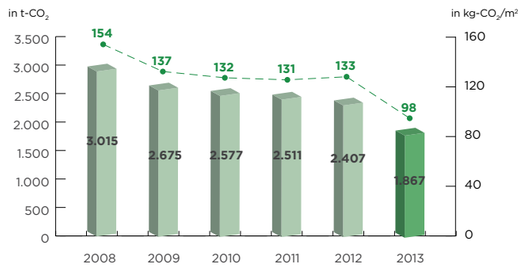
## Energy by Source

The energy source split for R&D shows a significantly smaller percentage of gas used this year due to the relatively mild winter and therefore lower usage of gas for heating.




## $CO_2$ Emissions

$CO_2$ Emissions for R&D




Total $CO_2$ emissions for R&D facilities fell by a considerable 25% this year, as the result of Honda's German R&D facility purchasing $CO_2$ free electricity.

# EUROPEAN REPORT
## 06. RECYCLING



## RECYCLING

*Introduction by Julien Van Damme*


Julien Van Damme
Manager European Environmental Safety and Planning Office

While the environmental impact of end-of-life may seem minimal in relation to the total life cycle of a car, it is an important part of the process and even economically viable to make use of the resulting waste in order to reduce the need for harvesting natural resources for new products.

As part of Honda's commitment to minimising the environmental impact of everything it does, it actively encourages dismantlers to depollute end-of-life vehicles and re-use materials where viable and appropriate. The remaining matter can then be shredded to recover further useful materials including plastics and metals, with what is left treated to recover energy content.

For several years Honda has also had a specific focus on the re-use of replaced bumpers, which are collected from dealers, together with recycled plastics from consumer waste, and re-used in new cars at HUM.

An additional growing area of waste collection is the recycling of car batteries, particularly those from hybrid cars. In September 2013 Honda Motor Europe signed an agreement with SNAM (Société Nouvelle d'Affinage des Métaux), a French company specialising in the treatment of batteries, to address this issue with the establishment of a hybrid vehicle battery collection and recycling network.

### Bumper Collection

Bumper collection remains an important part of Honda's efforts to minimise its impact on the environment. Collection activities continue in the UK, where the recycled plastics can be used by HUM. In the UK, following a two year period of decrease, the percentage of replaced bumpers which have been requested for collection is now increasing.



**CASE STUDY**

Recycling of Batteries from Hybrid Vehicles

In September 2013, Honda Motor Europe formalised its long-term partnership with SNAM, based in France; making SNAM responsible for the European-wide take back and recycling of Honda's hybrid vehicle batteries. The two companies have worked together to establish a European scheme to ensure the traceability of end-of-life batteries from the moment they are collected from Honda dealers and end-of-life vehicle centres through to recycling. Each battery collected at the end of its life is processed at SNAM's facilities.

Each collection point within the Honda network will work closely with SNAM to manage the treatment of NiMH and Li-Ion batteries in accordance with European environmental standards. The take back and treatment of industrial batteries in Europe is regulated by the EU Battery Directive 2006/66/EC which came into force on September 26, 2006, requiring Member States to transpose into national legislation within two years. Although the Directive specifies no particular collection targets for industrial batteries, recycling efficiency targets must reach a weight minimum of 50%.

With this agreement in place Honda's objective moving forward is to increase the collection area covered, with the aim of reaching the whole region within the next three years.


Koji Arai (Honda Motor Europe - Senior Vice President), Eric Nottez (SNAM - President)


Standing from left to right: Fumiko Kokubu (Honda Motor Europe -Staff Member), Michael Gruen (Honda Motor Europe - Head of Network Operations), Frederic Salin (SNAM - Sales Director)
Sitting from left to right: Koji Arai (Honda Motor Europe - Senior Vice President), Eric Nottez (SNAM - President)

# EUROPEAN REPORT
07. CSR



## CSR

**CASE STUDY 1**

Ukraine: National campaign to get Ukranians recycling batteries

Keen to underline Honda Ukraine LLC's commitment to improving its local environment, in March 2013 a small group of Associates formed a project task force to look at how they might bring about change. The team started with a survey among staff and dealers, revealing shared concern for the state of their environment in their local area, and general agreement that Honda Ukraine LLC should actively participate in undertaking ecological initiatives to address these issues.

The task force chose battery recycling as its first initiative, based on research results showing pollution from batteries to be of some concern, and a growing problem. With non-rechargeable batteries in common use in homes and offices across the country, the threat of pollution from harmful metals including lead, lithium and mercury from leaking batteries is considerable.

The team therefore established an initiative aiming to save 33,000 square metres of land and water from contamination from waste batteries, based on insight that contamination from one battery could cause 20 square metres of such pollution. Over a two month period, the campaign, in cooperation with the Ministry of Ecology of Ukraine, set out to engage Honda Ukraine Associates, dealers and the general public to recycle batteries. Collection boxes were delivered to dealers, Honda Ukraine LLC offices and public places; with posters, media coverage, Facebook, and websites used to create awareness and engagement. The team even attended the Dream Land Festival, Ukraine's world music festival, to take the message direct to the public.

The campaign was a huge success, engaging 86% of Honda's dealers in Ukraine, generating more than 20 pieces of online media coverage and 20,000 new Facebook 'likes'. Ultimately the team collected enough batteries to prevent pollution to 120,000 square metres of land and water, almost four times its original target.

**CASE STUDY 2**

Supporting the next generation of robotics pioneers across Europe

As a leading innovator in robotics development, Honda has for many years used its decades of work in the area, embodied by its humanoid robot ASIMO, to inspire young people to take an interest in science and engineering. As part of this commitment, Honda currently supports the next generation of robotics pioneers through RoboCup Junior, a competition that runs in more than 30 countries where schoolchildren create their own robots. Regional workshops take place throughout the year where teachers and coaches support students in developing their project, culminating in the finals at the end of the year. The winners of each final then go through to RoboCop Junior International, competing on the world stage in a range of development challenges including 'dancing robot', 'rescue robot' and 'advanced rescue robot'. Open to all children between 8 and 18 years old, the competition is free to enter and the winners from each discipline and age group in Europe get the chance to meet ASIMO during a special show at the ASIMO Studio in Brussels.





**CASE STUDY 3**

Spain: Reaching out to help disadvantaged children

In March of each year, Honda Motor Europe – Espana and Honda Finance Spain celebrate Honda Values day, with a range of CSR activities to benefit disadvantaged children. In 2014 they held the event at a home for children aged from 3 to 12 years old, where 55 associate volunteers coached the children in different activities and games, preparing nutritionally balanced food, reading books and carrying out repairs to the facility.

These activities are grounded in the Honda vision of 'striving to be a company society wants to exist'. The aim is not just to give joy to disadvantaged children, but to provide every Associate with valuable opportunities for contributing to their local communities through their own actions.

**CASE STUDY 4**

Poland: Hosting a children's health event on Children's Day

In June 2013, the VFR Poland Motorcyclists Association organised an event to lift the spirits of sick children on Children's Day. This charitable activity to support the health of children began in 2009 with the hope of helping them forget the burden of being in hospital, if only for a short while. On the day more than 100 motorcyclists and local people gathered to give the children presents of balloons and sweets, while Honda also provided a number of fun experiences including practicing on riding trainers (motorcycle traffic safety devices), watching stunt shows and riding on character-themed motorcycles.

**CASE STUDY 5**

The Bigger Picture: Helping motorcycle customers who are unable to read

Honda motorcycles are popular across the world including many parts of Africa. In emerging nations there is often a high demand for Honda products because they are reliable and durable – yet there are also a large number of people who are unable to read essential maintenance and repair information. As a solution Honda has introduced picture-based information leaflets and training materials. HMN has then taken this information and produced a hanging laminated chart that it has distributed to motorcycle taxi stations for use by motorcycle taxi drivers – a key customer group – as well as repair shops. As a result, many more customers unable to read can get the most out of their Honda motorcycle while ensuring that it is safe and well-maintained.

# ENVIRONMENT RELATED CERTIFICATES AND REGISTRATIONS

Safety and the Environment are now an integral part of any company's business operations. This is true of Honda for all its global and local operations – including all factories and logistics operations in the region. A healthy, safe and environmentally responsible workplace and workforce is vital to us, and to achieve it we operate all aspects of our business in compliance with our stated policies and procedures. We also comply with all relevant legislation as an absolute minimum, aiming to exceed these standards wherever we can. Our Safety and Environment policies are the starting point of this activity, supported by company action guidelines that provide direction to our improvement activities and clearly establish our responsibilities.

Honda's environmental and safety activities are reinforced by the achievement of the Environmental Management standard ISO 14001:2004 and the Safety Management standard OHSAS 18001:2007. This has strengthened the process of continuous improvement and assured compliance with legislation.

## EMAS Report

All Factories and Logistic Centres in Europe achieved certification to the Eco-Management and Audit Scheme (EMAS). As part of this, each of them produced a Safety and Environment report to make our policies and performance publicly available. The first report was issued in 2002 and subsequent annual updates are available from their Safety and Environment Departments.

## Safety Policy

Honda will ensure a safe and healthy working environment by building safety into our process and equipment and by achieving the highest level of safety awareness in our associates. There can be no production without safety.

In a global capacity, Honda's quest for safety in its products is not limited to the needs of car drivers and motorcycle riders. Honda's total commitment to 'Safety for Everyone' extends to passengers, pedestrians, occupants of other vehicles and everyone on the road. Honda will continue to develop and refine its innovative technologies to realise a safer society.



EUROPEAN REPORT
CERTIFICATES AND
REGISTRATIONS

## Environment Policy

Honda will make every effort to protect the environment from the effects of our manufacturing operations and will achieve, by means of continuous improvement, the expectations of society and our local community.

From its early days, Honda has implemented proactive measures to help solve environmental challenges. As we continue our ongoing efforts, we have set for ourselves clear targets to help preserve our environment and strive to be 'a company society wants to exist' through leadership in environmental and energy technologies.

## Factories

| Validity Date | ISO 14001 | EMAS | OHSAS 18001 |
|---|---|---|---|
| Honda of the UK Manufacturing Ltd. | 2015 | 2014 | 2015 |
| Honda Turkiye A.S. | 2015 | 2015 | 2015 |
| Honda Italia Industriale S.P.A. | 2016 | 2014 | 2016 |
| C.I.A.P. S.P.A. | 2015 | 2015 | 2015 |
| Montesa Honda S.A. | 2015 | 2014 | 2015 |
| Honda France Manufacturing S.A.S. | 2015 | 2014 | 2015 |
| Honda Mfg. (Nigeria) Ltd. | - | - | - |

## Logistics Centres

| Validity Date | ISO 14001 | EMAS | OHSAS 18001 |
|---|---|---|---|
| Honda Belgium Factory NV | 2015 | 2015 | 2016 |
| Honda Europe NV(*) | 2017 | 2017 | 2017 |
| Honda Logistic Center Austria GmBH | | - | |
| Honda Logistic Center Central Europe Sp.z.O.Z. | | - | |
| Honda Logistic Center Spain AS | | - | |
| Honda Logistic Center Italy SPA | | - | |
| Honda Logistc Center Sweden AB | | - | |
| Honda Logistic Center UK Ltd. | | - | |

*Honda Europe NV centralises the environmental and health management system for itself and the Honda Logistics Centres in Europe. All sites are covered by the same system. In relation to EMAS it has been decided not to extend it to the Honda Logistics Centres as they are too small and their environmental impact is limited. However they are already following the Honda Europe approach!

# HONDA SITES

included in Report

## Production

| | Name | City | Country |
|---|---|---|---|
| HUM | Honda of the UK Manufacturing Ltd (cars) | Swindon | UK |
| HTR | Honda Turkiye A.S. (cars) | Gebze | Turkey |
| HII | Honda Italia Industriale S.P.A. (motorcycles and power equipment) | Atessa | Italy |
| CIAP | C.I.A.P. S.P.A. (parts) | Bologna | Italy |
| MHSA | Montesa Honda S.A. (motorcycles) | San Perpetua de Mogoda (Barcelona) | Spain |
| HFM | Honda France Manufacturing S.A.S. (Power Equipment) | Ormes (Orléans) | France |

## Logistics - Distribution

| | Name | City | Country |
|---|---|---|---|
| HMEL | Honda Motor Europe Logistics NV | Gent | Belgium |
| HMEL-Aalst | Honda Motor Europe Logistics Aalst | Aalst | Belgium |
| HMEL AT | Honda Motor Europe Logistics Austria | Guntramsdorf | Austria |
| HMEL PL | Honda Motor Europe Logistics Poland | Priewy | Poland |
| HMEL ES | Honda Motor Europe Logistics Spain | Barcelona | Spain |
| HMEL IT | Honda Motor Europe Logistics Italy | Collogna Al Colli | Italy |
| HMEL SE | Honda Motor Europe Logistics Sweden | Arlöw | Sweden |
| HMEL UK | Honda Motor Europe Logistics UK | South-Marston | UK |
| HSAF | Honda Motor Company South Africa | Midrand | South Africa |
| HBD | Honda Gulf Fze. | Dubai | United Arab Emirates |
| HMR | Honda Motor Rus LLC | Moscow | Russia |
| HUA | Honda Ukraine LLC | Kyiv | Ukraine |

Barcelona, Spain

Malmö, Sweden


Priewy, Poland


Swindon, UK


Verona, Italy




## Sales Subsidaries (Administration)

| | Name | City | Country |
|---|---|---|---|
| HME-UK | Honda Motor Europe Limited | Slough (London) | UK |
| HME-DE | Honda Deutschland Niederlassung der Honda Motor Europe Ltd | Offenbach | Germany |
| HME-CH | Honda Motor Europe Ltd, Succursale de Satigny/ Geneve | Satigny Geneve | Switzerland |
| HME-AT | Honda Austria branch or Honda Motor Europe Ltd | Wiener Neudorf | Austria |
| HME-NL | Honda Motor Europe Ltd (Netherlands) | Schiphol-Rijk | The Netherlands |
| HME-BEB | Honda Motor Europe Ltd Belgian Branch | Zellik (Brussels) | Belgium |
| HME-FR | Honda Motor Europe Ltd (France) | Marne la Vallée | France |
| HME-IT | Honda Motor Europe Ltd (Italia) | Verona | Italy |
| HME-ES | Honda Motor Europe Ltd Sucursal en Espana | Barcelona | Spain |
| HME-PT | Honda Motor Europe Ltd Sucursal em Portugal | Sintra | Portugal |
| HME-CZ | Honda Motor Europe Ltd Organizacni Slozka Ceska republika | Praha 5 | Czech Republic |
| HME-SK | Honda Motor Europe Ltd Slovensko Organizacna Zlozka | Bratislava | Slovakia |
| HME-HU | Honda Motor Europe Ltd Magyarorszagi Fioktelepe | Budaörs | Hungary |
| HME-PL | Honda Motor Europe Ltd (Spolka Z Orgranic-zona Odpowiedzialoscia) Odzial W Polsce | Warszawa | Poland |
| HME-NR | Honda Motor Europe Ltd Filal Sverige | Malmö | Sweden |
| HME-EE | Honda Motor Europe Ltd Eesti Fillaal | Tallinn | Estonia |
| HME-NO | Honda Motor Europe Ltd Norge norsk avdeling av utenlansk foretak | Drammen | Norway |
| HME-FI | Honda Motor Europe Ltd, Suomen sivullike | Helsinki | Finland |
| HME-DK | Honda Motor Europe – Denmark filial af Honda Motor Europe Ltd, United Kingdom | Kolding | Denmark |
| HUA | Honda Ukraine LLC | Kyiv | Ukraine |
| HSAF | Honda Motor Company South Africa | Midrand | South Africa |
| HBD | Honda Gulf Fze. | Dubai | United Arab Emirates |
| HMR | Honda Motor Rus LLC | Moscow | Russia |
| HIR | Honda Italia Industriale Spa-Rome Office | Roma | Italy |

## Research and Development

| | Name | City | Country |
|---|---|---|---|
| HRE-UK | Honda R&D Europe (U.K.) Ltd. | South Marston (Swindon) | UK |
| HRE-G | Honda R&D Europe (Germany) Ltd. | Offenbach | Germany |
| HRI-EU | Honda Research Institute Europe G.M.B.H. | Offenbach | Germany |
| HRE-I | Honda R&D Europe (ITALIA) S.R.L. | Roma | Italy |
| HRE-M | Honda R&D Europe (Russia) LLC. | Moscow | Russia |

## Dealers

| | Name | City | Country |
|---|---|---|---|
| GG | Garge Du Golf | Aigle | Switzerland |
| GSC | Garage City Servette | Geneve | Switzerland |
| GB | Garage de Bellveaux | Lausanne | Switzerland |
| GJ | Garage des Jordils | Neuchatel | Switzerland |
| GVC | Garage de Villars Chandolan | Fribourg | Switzerland |
| LG | Letzigraben Garage | Zurich | Switzerland |

# GRI REFERENCE LIST

Based on the G3 GRI Reporting recommendations, please find here the information where the GRI topic can be found in the report:

| Ref. | GRI Description | Report page |
|---|---|---|
| 1.1 | CEO statement | 9-17,59 |
| 1.2 | Key impacts, risks and opportunities | 16,23-25,28 |
| 2.1 | Name of the organization | 3 |
| 2.2 | Brands, products and services | 3 |
| 2.3 | Operational structure | 49-50 |
| 2.4 | Location of organization's headquarters | 113 |
| 2.5 | Countries of operation | 3,110-113 |
| 2.9 | Significant changes during the reporting period | none to report |
| 3.1 | Reporting period | 3 |
| 3.2 | Date of most recent previous report | 3 |
| 3.3 | Report cycle | 3 |
| 3.4 | Contact | 3 |
| 3.6 | Specific limitations on the scope or boundary of the report | 3 |
| 3.7 | Basis for reporting on joint ventures, subsidaries, leased facilities, outsourced operations, etc... | 3 |
| 3.8 | Data measurement techniques | 3 |
| 3.9 | Data measurement techniques | 75 |
| 3.11 | Significant changes from previous reporting periods | 95 |
| 3.12 | Table indentifying the location of the standard disclosures in the report | 3,114 |
| 4.1 | Governance structure | 49 |
| 4.2 | Indicate whether the Chair of the highest governance body is also executive officer | 49 |
| 4.8 | Internally developed statements of mission or values, codes of conduct and principles | 21-22 |
| 4.9 | Management of economic, environmental and social performance | 49 |
| 4.17 | Key topics and concerns | 31-33 |
| EN2 | Recycled input materials | 101 |
| EN3 | Direct Energy Consumption by primary source | 76-86 |
| EN5 | Energy saved due to conservation and efficiency improvements | 18-19,84 |
| EN6 | Energy efficient products and services | 26-28,63-70 |
| EN8 | Total water withdrawal by source | 54 |
| EN14 | Strategies, current actions and future plans for managing impacts on biodiversity | 29 |
| EN16 | Direct and indirect greenhouse gas emissions | 76-86 |
| EN18 | Reduction in greenhouse gas emissions | 31-33,54,76-86 |
| EN20 | Nox, Sox and other significant air emissions by type and weight | 54 |
| EN21 | Total water discharge | 54 |
| EN22 | Total amount of waste | 54,76-86 |
| EN26 | Environmental impact of products and services | 30,64,95-98 |
| EN27 | Percentage of products sold and their packaging materials that are reclaimed by category | 101 |
| EN28 | Incidents of non-compliance | none to report |
| EN29 | Impacts of transport | 89-91 |



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