2018 NORTH AMERICAN ENVIRONMENTAL REPORT

HONDA

HONDA

Table of Contents

This report covers Honda's activities in the United States, Canada and Mexico — including company policies, the overall direction of Honda's environmental initiatives and a current assessment of the environmental impact of its operations — for the fiscal year that began April 1, 2017 and ended March 31, 2018 (FY2018).

03 CEO Letter

04 Executive Summary

07 Environmental Vision

08 Management and Direction

19 Life Cycle Assessment of Environmental Impact

20 Product Development

22 Manufacturing

31 Sales and Service

35 In-Use

42 End-of-Life

43 Supplemental Information

43 North American Corporate Profile

44 Additional Information

On the Cover

Joining the Clarity Plug-in Hybrid are Honda's two newest U.S.-made hybrid models, the 2018 Accord Hybrid and 2019 Insight, which are helping prepare our manufacturing plants in North America to produce the electrified vehicles of the future. Also represented on the cover is our on-site solar array, which will supply up to 30 percent of the electricity for our Torrance, California campus, the wind turbines that help power Honda Transmission Manufacturing of America, Inc. in Ohio, and the Honda Marine Science Foundation.

To learn more, visit:

csr.honda.com

BLUE SKIES FOR OUR CHILDREN

"Blue Skies for Our Children" is the global environmental slogan adopted by Honda to express its commitment to the realization of its environmental vision through expanded environmental initiatives.

Honda engineers, who took on the challenge to meet the stringent new emissions standards of the 1970s U.S. Clean Air Act, used the phrase "blue skies for our children" as a passionate rallying cry to devote themselves to this effort. This slogan continues to represent Honda's passion toward its environmental commitment, which has not wavered and will remain resolute in the future.

Electronic format

The Honda North American Environmental Report (NAER) has adopted a new approach in 2018, making the report more data-driven, and focusing more on the results of Honda's environmental processes.

These reports will combine with Honda's latest stances on environmental policy and direction to make up the bulk of this report. The narratives that had previously been found in the NAER, along with the latest news and storytelling surrounding Honda's environmental initiatives, can be found at our Corporate Social Responsibility website csr.honda.com.

The NAER format will alternate in coming years between the previous style of report with full narrative, and the current style of a data-driven report.

We value your opinion

We are interested in your response to this report, which will help us improve future reporting. Please click here to complete a brief survey.

Data worksheet

Click here to download a worksheet containing all of the key data from this report.

To navigate this report

Click on the links at the right of each page to jump to sections within the report or use the page forward/back arrows.

Click on any item in the table of contents above to go to that page.

Use the left and right arrow keys on your keyboard to move between pages.

In full-screen mode (accessible from the "View" tab on the Adobe toolbar), left-click to move to the next page, right-click to move to the previous page.

HONDA

A Letter from the President & CEO

Through the challenging spirit of our Honda associates and the support of our customers and communities around the region, we continue to make important progress in reducing the environmental impact of our products and our business operations in North America. Our efforts are guided by the Honda 2030 Vision, which marks both a renewed commitment to the original spirit and purpose of Honda — to use technology to make people's lives better — and a bold step toward our ultimate goals of a carbon-free and collision-free society.

For the near term, we have set forth challenging targets, including the halving of our company's total CO_2 emissions by 2050 (this includes not only new products, but all products in operation) and, most critically, the transition to electrified vehicles, which are intended to comprise two-thirds of our global automobile sales by 2030. In North America, we are utilizing original Honda technology — our two-motor hybrid and plug-in hybrid systems — to bring electrified vehicles into the mainstream with products that are broadly appealing and affordable, delivering exceptional efficiency and low emissions
with no compromise to vehicle performance, style or utility.

Moreover, our two newest U.S.-made hybrid models, the 2018 Accord Hybrid and 2019 Insight, are helping prepare our manufacturing plants in North America to produce the electrified vehicles of the future. These products leverage the expertise of five different U.S. plants to produce the vehicles as well as their hybrid batteries, ultra-efficient Atkinson cycle engines and two-motor power hybrid powertrains using domestic and globally sourced parts and materials. We will continue to invest in these plants and in our capability to produce advanced-technology vehicles in North America as we expand the application of our hybrid or plug-in hybrid technology to virtually all of our core models in North America in the years ahead.

In addition to our product initiatives, we also are working to minimize emissions from our business operations and from the use of electricity in our cars. For example, earlier this year, we began utilizing an on-site solar array to supply up to 30 percent of the electricity for our Torrance, California campus. Also, in July, we launched a beta test of the Honda Smart Charge® system in Southern California. This Honda-developed technology is being tested with Fit EV customers, enabling them to minimize the cost of recharging while mitigating stress on the utility grid and prioritizing the use of renewable energy stocks. We hope to expand this technology to additional Honda electric vehicle users in the near future.

These examples and the additional initiatives and information described within this report are intended to give you a better understanding of our company's environmental vision, the environmental impact of our operations in North America, and the progress we are making toward our ultimate goal of a carbon-free mobility future.

I hope you will find this material informative, and I encourage you to provide us with your comments and feedback so that we may continue to improve upon the report's value to you and all of our stakeholders.

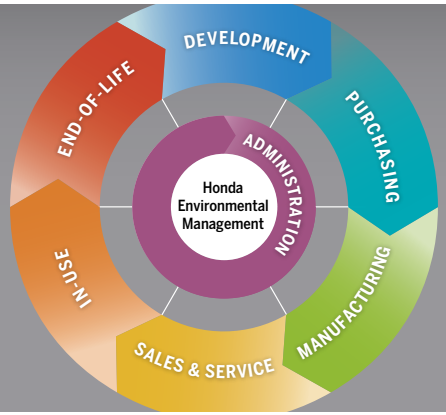
Sincerely,

Toshiaki Mikoshiba
President & CEO, Honda North America, Inc.
Chairman, Honda North American Environmental Committee

HONDA

2018 Executive Summary

The following summarizes the most significant findings of this year's report and is organized by the various stages of the product life cycle. Honda recognizes the Life Cycle Assessment model as a critical tool for understanding, measuring and minimizing the impact of its products on the environment.



Product Development

CATEGORY	PRODUCT	FY2018 RESULTS
Recyclability	Autos	• Maintained a 90 percent level of design recyclability for all Honda and Acura automobiles.
	Powersports and Power Equipment	• Maintained a 95 percent level of design recyclability for all powersports and power equipment products.
Volatile Organic Compounds (VOCs)	Autos	• Honda's goal is to have a PVC-free material construction for interiors on all of its vehicles. Through the end of FY2017, 12 of the 15 Honda and Acura car and light truck models sold in the U.S. or Canada had PVC-free interiors.
Fuel-Efficient Technology	Autos	• The company has continually advanced its hybrid technology in multiple generations of the Insight, Accord and Civic models, most recently with the launch of the 2018 Accord Hybrid and all-new 2019 Insight, both utilizing Honda two-motor hybrid technology.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

2018 Executive Summary

Manufacturing

CATEGORY	PRODUCT	FY2018 RESULTS
CO_2e Emissions	Autos	• The CO_2 emissions intensity of automobile manufacturing increased 9.8 percent from the prior year but at 601 kilograms per unit of production (kg/unit) are 19.5 percent lower than FY2009 levels.
	Powersports	• The CO_2 emissions intensity of powersports product manufacturing decreased 23 percent from the prior year and at 57.2 kg/unit are 80 percent lower than FY2009 levels.
	Power Equipment	• The CO_2 emissions intensity of power equipment product manufacturing was down 16.7 percent from the previous year and 54 percent from FY2009 levels to 5.5 kg/unit.
Waste	All Products	• Solid waste from manufacturing operations decreased 4.1 percent versus year-ago totals. • Total waste sent to landfill decreased 23.7 percent over last year, and is 90 percent below the 2001 baseline levels.
Water		• Water use per auto (gallon/unit) decreased 3.8 percent compared to last year.
VOC Emissions		• VOC emissions from body painting, at 15.0 g/m^2, were up 0.5 percent vs. the previous year but still well below the company's targeted maximum of 20 g/m^2.

Sales & Service

CATEGORY	PRODUCT	FY2018 RESULTS
CO_2 Emissions	Autos	• Since FY2009, Honda has achieved a 5.3 percent reduction in the CO_2 emissions intensity of automobile shipments in the North America.
	All Products	• Honda has reduced the CO_2 emissions intensity of North America service parts shipments by 46 percent from FY2009 levels.
Waste	All Products	• Waste material sent to landfills from Honda's U.S. parts distribution facilities has been reduced 87 percent, from 950 tons in FY2009 to 12 tons in FY2018, with only 0.01 percent of total waste sent to landfills in FY2018.
"Green Dealers"	All Products	• Honda launched its "green dealer" environmental awards program in FY2012 and through the end of FY2017 had enrolled more than 700 U.S. Honda and Acura dealers, and awarded 217 of those enrolled dealers, including three electric-grid neutral dealers.

HONDA

2018 Executive Summary

In-Use

CATEGORY	PRODUCT	FY2018 RESULTS
Fuel Economy and CO_2 Emissions	Autos	• Honda's U.S. fleet-average fuel economy increased slightly over last year to 38.7 miles per gallon (mpg), which is 19.8 percent higher than the industry average fuel economy of 32.3 mpg for the same period. • Honda's fleet average CO_2 emissions decreased 4.9 percent from last year to 230 grams per mile (g/mi).
	Powersports	• Relative to model year 2000, Honda has achieved a 69.8 percent improvement in the fleet-average fuel economy of on-road motorcycles sold in North America.
	Power Equipment	• The fleet-average CO_2 emissions of Honda's U.S. power equipment products were virtually identical to the previous year.
Criteria Air Pollutants	Autos	• NMOG + NO_X emissions for Honda's U.S. automobile fleet in model year 2017, at 0.062 g/mi was a 20.5 percent decrease over last year.
	Powersports Products	• HC + NO_X emissions for Honda's U.S. motorcycles were down slightly for Class I, Class II and Class III. All are below applicable federal and state regulatory requirements.
	Power Equipment	• HC + NO_X emissions for Honda's U.S. Power equipment remained stable compared to recent years and were below applicable federal and state regulatory requirements.

End-of-Life

CATEGORY	PRODUCT	FY2018 RESULTS
Waste	E-waste, overstock and remanufactured parts	• Honda continued efforts to work with its U.S. dealers to increase the recycling of certain vehicle components. In FY2018, the company diverted from landfill 53 million pounds of recyclable material, a 12 percent increase from the prior year.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Environmental Management

Overview

In 1992, we released the Honda Environmental Statement, a corporate guideline aimed to articulate our core environmental position: reduce environmental impact at every stage in the life cycle of our products, not simply the design, development and production stages. In 2010, we furthered this initiative by establishing the Honda Environmental and Safety Vision. Aimed at the realization of the joy and freedom of mobility and a sustainable society where people can enjoy life, today each of Honda's global business sites embraces this philosophy with ongoing efforts to reduce our collective environmental footprint. From production- and corporate activity-based impacts, to greenhouse gas emissions, energy consumption and resource use, environmental management is fundamental to our mission.

Honda Environmental and Safety Vision

Realizing "the Joy and Freedom of Mobility" and
"a Sustainable Society where People Can Enjoy Life"

Honda Environmental 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 promote 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 strive to recycle materials and conserve resources and energy at every stage of our products' life cycle — from research, design, production and sales, to service and disposal.
2. We will strive 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 regional environment and society, and endeavor to improve the social standing of the company.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Environmental Management

Honda has developed an institutional framework to put into practice the principles of environmental conservation as defined in the Honda Environmental Statement. Honda's regional operations, including the North America region, are given broad authority to fulfill their operational business responsibilities, which include planning and acting in accordance with Honda's environmental vision to minimize the environmental impact of their local business activities. A hallmark of Honda environmental initiatives is that planning and execution are not delegated to specialists; rather, they are taken up directly by associates in all departments, who are engaged with environmental issues as part of their duties.

Sustainability Strategy Committee
The Sustainability Strategy Committee determines annual plans for implementing sustainability programs on a global level based on the company's medium-term business plans determined by the Executive Council. The company's president and CEO currently chairs the committee.

North American Environmental Committee
Regional environmental representatives for each of six Honda regional operating groups, including the North American Environmental Committee, discuss and evaluate annual achievements under the plan and then, based on the results, create new targets and plans. The North American Environmental Committee is chaired by the company's North American president and CEO, and includes members of the company's regional operating board representing the United States.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Key Practices

Environmental Risk Management

Honda considers risk management to be an integral part of environmental management. Honda's approach to risk management is reflected in various activities:

- systems for preventing spills and unplanned releases;
- systems for reducing environmental releases;
- systems for recycling products, components and manufacturing byproducts, in order to minimize landfill waste; and
- triple-checked vehicle emissions testing to assure automobile emissions compliance.
- North American green building standard to ensure built-in energy efficiency for new buildings.

From long-term planning to daily operations, Honda strives to understand the risks of environmental impact and to make prudent decisions to minimize impacts wherever possible. Honda North America, Inc., a subsidiary of Honda Motor Co., Ltd., serves as auditor, helping to ensure that Honda's various subsidiary companies and its affiliated suppliers in the North America region are in compliance with all applicable environmental laws and regulations. It also provides support to those companies in determining and implementing best practices for Honda's environmental management activities in the region.

Environmental Laws and Regulations

Regulatory compliance is fundamental to the production and in-use performance of Honda products and to the continuance of Honda's operations in North America. All Honda companies have systems in place to ensure that their activities comply with all applicable legal requirements.

Emissions-Related Product Recalls

Honda's policy on product recalls, including emissions-related recalls, is in accordance with the procedures of its Quality Committee, which is composed of senior executives from various divisions of Honda. The Quality Committee makes decisions about Honda products manufactured and sold throughout the world, relying upon recommendations from Honda experts in each region. Honda had no emissions-related product recalls in FY2018.

North American Environmental-Related Fines

Although the plant's VOC emissions remains well below regulated maximums, during the fiscal year that ended March 31, 2018, Honda paid a fine of $120,000 to the state of Alabama for a self-reported air pollution control equipment violation when a malfunction allowed lower temperatures than permitted for the facility's regenerative thermal oxidizer.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Addressing Global Climate Change and Energy Use

2020 Product CO_2 Emissions Reduction Targets

Reducing global CO_2 emissions from our products is a necessary step in combating climate change and energy use issues, which is why Honda established voluntary targets for reducing the CO_2 emissions intensity of its products by 2020. The company is aiming for a 30 percent reduction in the global average CO_2 emissions intensity of Honda automobiles, motorcycles and power equipment products, compared with FY2001 levels. These targets are an interim step toward the company's longer term goal of cutting total company CO_2 emissions in half by 2050, compared to FY2001 levels. This ambitious goal includes not only new products but all Honda products in operation in that year as well; meeting these 2050 targets will require new products that emit at 80-90 percent below FY2001 levels.

Honda aims to steadily reduce CO_2 emissions by progressively promoting three strategies: (1) reducing emissions through increasing the efficiency of internal combustion engines; (2) reducing emissions by introducing environmentally innovative technologies and increasing energy diversity; and (3) eliminating emissions through the use of renewable energy and total energy management.

2020 Product CO_2 Emissions Reduction Targets

Global average CO_2 emitted by Honda products

30% reduction

Automobiles
30% reduction (g/km CO_2) from FY2001 levels by 2020

30% reduction

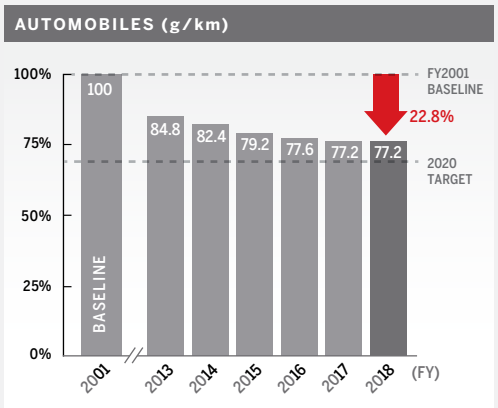
Powersports
30% reduction (g/km CO_2) from FY2001 levels by 2020

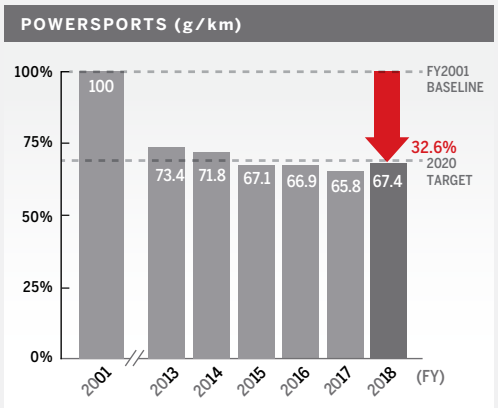
30% reduction

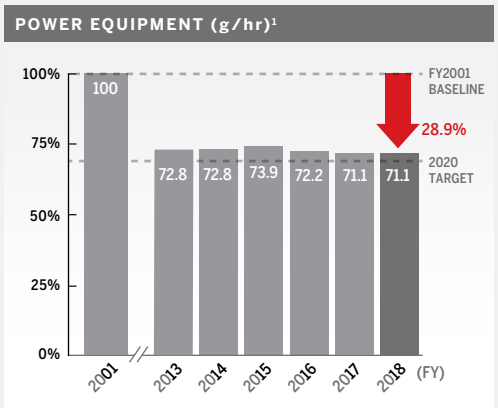
Power Equipment
30% reduction (g/hr CO_2) from FY2001 levels by 2020

Regions covered: Automobiles — Japan, North America, Europe, Asia and Oceania, China, Latin America (more than 90 percent of global sales); Motorcycles — Japan, North America, Europe, Thailand, India, China, Indonesia, Vietnam, Brazil, Philippines, Malaysia, Pakistan (more than 90 percent of global sales); Power Equipment — All products sold in all regions.

Progress Toward Global 2020 CO_2 Emissions Reduction Targets







[1] CO_2 emissions for power equipment products were calculated using average usage time and required output for each engine up until FY2015. In order to ensure greater precision in these calculations, since FY2016 Honda has used usage time and required output in consideration of the users of each product, with all previous years retroactively restated with 2001 as the base year.

HONDA

Honda's Approach to Climate Change Policy

Honda recognizes climate change as a serious environmental concern with significant consequences for all of society. For years, the company has been, and remains, firmly committed to mitigating climate change impacts throughout our broad array of corporate activities. While improving the fuel efficiency of our products and developing non-petroleum fueled alternatives are perhaps the most visible of these activities, significant efforts have been made to improve manufacturing and logistics activities as well.

Honda takes a portfolio approach in developing technologies to address climate change. By pursuing multiple pathways, Honda can better address the environmental challenges of each market as well as the needs of individual consumers. Solving an environmental challenge as complex as global climate change requires concerted efforts by industry, government and consumers alike. First and foremost, we recognize that a successful GHG reduction program requires broad market acceptance of the technologies developed to reduce GHG emissions. Using this philosophy as a foundation, Honda takes the following positions on current climate change-related policy issues:

Honda's Approach to Climate Change Policy in North America

Public Policy Initiatives	Honda's Position
Federal Fuel Economy (CAFE) and Vehicle Greenhouse Gas Emissions (GHG) Standards	Honda was among the earliest supporters of, and was a signatory to, the White House initiatives to have a single program that harmonized fuel economy and GHG emissions standards for model year 2012-2016 and 2017-2025 vehicles. Honda continues to support the "One National Program" framework. In today's marketplace, a nationwide set of technology neutral, performance-based standards, such as the CAFE and GHG standards, helps drive innovative ideas to reduce fuel consumption and carbon emissions. Any future changes made to CAFE and vehicle GHG standards, such as changes made as part of the agencies' Mid-Term Evaluation process, should have a sound scientific basis, yield steady annual increases in stringency, and provide policy support for the development of next-generation technologies. Honda believes policies incentivizing electrified vehicle development – advanced technology multipliers, for example – are an important catalyst for transitioning to a future ultra-low carbon vehicle fleet. Honda strongly encourages discussions between California and federal Administration officials that could lead to better harmonization and integration among many programs, including the federal CAFE and GHG programs, as well as regional programs such as the California standards and the Section 177 states that follow those standards.
Decarbonization of Transportation Fuels	Honda has consistently asserted that fuel and vehicle pathways need to be evaluated on a "well to wheel" basis (although regulatory obligations to achieve decarbonization should be assigned to fuel producers). The seismic shift in the industry towards electrified vehicles will only be effective if the electric grid is substantially decarbonized. While Honda is working to increase renewable fuel use in our operations (factories, offices, etc.), low-carbon electricity, hydrogen, gasoline and diesel are available as transportation "fuels ."[1] Public policy efforts in this area can take many forms, including cap and trade, low carbon fuel standards and clean power plans. Honda's endorsement of these policies depends, of course, on the specifics of each proposal, but generally we are supportive of efforts to reduce the carbon content of transportation fuels.

[1] Neither hydrogen nor electricity are technically "fuels" but rather energy carriers. We use the term "fuel" to mean the form of energy on-board the vehicle used in propulsion.

HONDA

Honda's Approach to Climate Change Policy cont'd

Incentives	Government incentives can be constructive in stimulating nascent and expensive technologies, such as those used in fuel cell vehicles, battery-electric vehicles and plug-in hybrid electric vehicles. Incentives should be technology neutral, performance based and limited in duration. Both financial incentives, such as consumer tax credits, and non-financial incentives, such as HOV lane access for advanced-technology vehicles, are proven to stimulate demand and enlarge the market for those types of automobiles. At the same time, the non-financial HOV incentive should be balanced with the original purpose of the carpool lanes, namely traffic congestion mitigation and air-quality improvement. Newly constructed High Occupancy Toll (HOT) lanes — as well as those converted from existing HOV lanes — should accommodate advanced technology incentives commensurate with current HOV lane incentives in the particular state (such as cost-free access).
Public Policy Initiatives	**Honda's Position**
Renewable Fuels Biofuels, Ethanol and Flex Fuel Vehicles	Renewable fuels offer promising opportunities to displace petroleum, and have the potential to reduce GHG emissions. However, some renewable fuels are more effective, sustainable and/or economically viable than others at achieving this objective. Biofuels research continues to advance, as does the scientific understanding of both positive and adverse impacts of its use. Complex and vexing challenges related to biofuels use, such as indirect land use and "food versus fuel" impacts, are important considerations in assessing their broader social value. Compatibility with existing and future products, a viable distribution network and a refueling infrastructure are all critical considerations. • EPA's approval of a waiver allowing the sale of E15 was premature and does not meet the criteria detailed above. Specifically, since blends in excess of 10 percent are not inherently compatible with legacy vehicles, small engine products, and motorcycles, the government must assure that legacy fuels remain in the marketplace and provide for effective safeguards to prevent misfueling by consumers. • Ethanol does offer the promise of higher octane levels which, along with octane added at the refinery, is important to meet the fueling needs of advanced internal combustion engines. • Drop-in fuels, fuels that can be used without major changes to the fueling infrastructure, such as bio-butanol, are promising alternatives to ethanol, as they would obviate many of the problems that manufacturers, distributors, providers and consumers currently face with mid-level ethanol blends.
Macro-Economic Drivers	While regulatory mandates are one way of achieving reduced GHG emissions, a carbon tax or cap-and-trade program are market-based tools that may be more efficient in achieving a similar goal. Both approaches have precedent, but must be implemented in thoughtful ways that spread the burden equitably, avoid windfalls and are reasonable to administer.
California Air Resources Board (CARB) Zero-Emission Vehicle (ZEV) Mandate	The ZEV mandate requires automakers to sell zero-emission technology vehicles in California and nine other states that have adopted the standards. Because the level of customer acceptance of these new technology vehicles is still unclear, the ZEV mandate should be structured to provide greater flexibility to promote the full array of advanced, zero-emission technology options. While Honda is a strong supporter of electrified vehicle technologies, the company believes it is fundamentally too early to rely on any single technology toward long-term goals of reducing GHG emissions and petroleum consumption. Basing a regulatory framework on environmental benefits rather than technology types would yield comparable social benefits, yet do so in a way that fosters creative engineering solutions for meeting our mid-century climate goals. In order to succeed, zero-emission vehicle policies mandating adoption of these technologies must be complemented by state policies aimed at building out new fueling infrastructure, reducing other market barriers and encouraging technology adoption by consumers. All states mandating the technology should be committed to providing both infrastructure and robust financial and non-financial incentives to help foster market interest and acceptance.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Risks and Opportunities of Climate Change and Energy Use

Based on Honda's global assessment of environmental risks, our North American management team is constantly surveying future environmental, economic and social needs in the North American region in an effort to anticipate their effects on our business. Virtually every future risk carries with it an opportunity, and anticipating and responding quickly gives Honda the greatest degree of flexibility to ensure the sustainability of its business.

We are focusing here on three key risk areas: Air Quality, Climate Change and Energy Security.

Key Areas of Risk Management	Risks and Opportunities
Air Quality There are three primary elements to air quality impacts that Honda addresses: precursors to smog (localized health effects), particulate matter (localized health effects and contributor to climate change) and carbon monoxide (localized health effects). Virtually every combustion engine product Honda makes is regulated with respect to one or more of these impacts.	• Honda has aggressively met or exceeded emissions standards, frequently prior to regulatory requirements, and has worked cooperatively with regulatory agencies to continuously reduce harmful emissions. • While dramatic improvements have been made during the past 30 years and new priorities (such as climate change) have emerged, air-quality regulations continue to become more stringent. In 2017, the automotive industry began complying with stringent new "Tier 3" emissions standards designed to harmonize with California's aggressive LEV III standards. Honda strongly supported this effort. • Honda does not anticipate that future emissions standards through 2025 pose significant threats to its business, nor do they represent a significant competitive advantage for Honda.
Climate Change and Energy Security Society's growing demand for cleaner, more fuel-efficient products and alternative sources of energy, along with stringent new fuel economy and greenhouse gas emissions requirements across the globe, pose a significant challenge to the auto industry to accelerate the development and deployment of new technologies while meeting customers' expectations for vehicle performance, utility, safety, reliability and affordability.	• Honda is focused on the issues of climate change (greenhouse gas emissions) and energy security in all of its business activities, in particular in the development of more fuel-efficient and alternative-fuel products. • Honda took a cooperative role in new U.S. fuel economy and greenhouse gas regulations for the period 2012-2025. While these regulations pose a substantial challenge with respect to the introduction and marketing of new and potentially costly technologies, we embrace the challenge of meeting these standards by leveraging our capabilities in the areas of fuel-efficient propulsion systems, reduced auxiliary loads, reduced running resistance (improved aerodynamics and lightweighting) and alternative-energy technologies.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Improving Fuel Efficiency and Reducing Greenhouse Gas Emissions

Honda has long pursued a "portfolio approach" to addressing both greenhouse gas emissions and energy issues. This strategy encompasses multiple technology pathways and seeks to comprehensively address the challenges associated with the deployment of new energy and vehicle technologies. The chart that follows seeks to provide Honda's perspective in the North American market with respect to this portfolio approach, and to present a clear, concise and contemporary rating system for various technologies regarding their potential benefits to society and their unique marketability challenges.

In terms of environmental impact, tailpipe emissions represent only a portion of a vehicle's carbon emissions. Additional emissions result from the extraction, refining and transporting of fuel used by the vehicle. A well-to-wheels assessment is necessary to account for these emissions. It is also critical for comparing vehicle technologies that run on different fuels, such as electrically powered vehicles that draw a large portion of their power from stationary sources.

OPPORTUNITY FOR IMPROVEMENTS IN THE SOCIAL VALUE DIMENSIONS COMPARED TO CURRENT INTERNAL COMBUSTION ENGINE (ICE) VEHICLES

VERY GOOD
GOOD
FAIR
CHALLENGING

MARKETABILITY COMPARISONS TO CURRENT ICE VEHICLES

VERY GOOD
GOOD
FAIR
CHALLENGING

Many of these judgments are difficult and may shift over time as information becomes clearer, technologies evolve or circumstances change. For now, these color-coded references serve as a quick comparison between the current promise of these technologies and strategies for the North American market.

	Social Values			Marketability				
	AIR QUALITY	GHG REDUCTION	ENERGY SECURITY	INFRA-STRUCTURE	COST	FULL FUNCTION	APPEAL	Honda's effort
Improved Gasoline Internal Combustion Engine	VERY GOOD	FAIR	GOOD	VERY GOOD	VERY GOOD	VERY GOOD	VERY GOOD	Honda is broadly applying advanced engine technology, including low-friction-engine features, variable valve timing, variable displacement, direct injection and turbocharging. In the past several years, the company has steadily expanded the use of downsized direct-injected turbocharged engines with continuously variable transmissions in its most popular car models in North America, including Civic, CR-V and Accord; as well as more efficient 9- and 10-speed transmissions in larger light truck models, including the Pilot SUV and Odyssey minivan. Ultra-efficient Atkinson cycle 4-cylinder engines achieving more than 40 percent thermal efficiency are also being utilized in the Accord Hybrid, Clarity Plug-In Hybrid and new Insight hybrid sedan.
	There remain significant opportunities to further improve the fuel efficiency of the gasoline internal combustion engine (ICE). Even with potential modest increases in vehicle miles travelled, fuel efficiency improvements directly correlate with reductions in both greenhouse gas emissions and petroleum use. Improved ICE presents the greatest near-to mid-term overall social benefit because of its high volumes and broad market acceptance and fueling infrastructure.			The incremental costs of improving ICEs should be paid back by fuel savings over several years, even under current, moderate fuel prices. Improved gasoline ICEs are proven to be appealing and well accepted by consumers.				

HONDA

Improving Fuel Efficiency and Reducing Greenhouse Gas Emissions cont'd

	Social Values			Marketability				
	AIR QUALITY	GHG REDUCTION	ENERGY SECURITY	INFRA-STRUCTURE	COST	FULL FUNCTION	APPEAL	Honda's effort
Natural Gas Vehicles	VERY GOOD	UNCERTAIN	VERY GOOD	CHALLENGING	FAIR	GOOD	GOOD	Honda began selling natural gas vehicles in 1998 to U.S. fleet customers, extending sales to retail customers in 2001. Over a 17 year period, Honda brought four generations of the Civic Natural Gas to the U.S. market before discontinuing sales in 2015 based on limited market demand. Honda continues to market natural gas vehicles in Asia.
	Natural gas is an abundant, inexpensive, domestic fuel. Since natural gas is a domestic alternative to petroleum, it is excellent for energy security. Recent research into the "well-to-tank" portion of natural gas emissions has raised concerns about the true "well-to-wheels" greenhouse gas benefits of natural gas vehicles. Uncertainty remains about the quantity of methane leakage that occurs during natural gas extraction. Continued attention should be paid to the methods of extracting natural gas to ensure there are no substantial negative environmental or public health impacts.			Public refueling stations remain the single biggest obstacle to the widespread adoption of light-duty natural gas vehicles. The cost premium for natural gas vehicles is roughly the same as that of a hybrid automobile, with the potential for further reductions. Over time, this cost premium can be offset by the lower fuel cost. In mainstream products, particularly sedans and smaller vehicles, vehicle utility, such as cargo space, can be negatively impacted by the space required for fuel storage. Natural gas vehicles offer performance, safety features, and comfort on par with their gasoline counterparts. Natural gas refueling infrastructure will need to be built-out in order for these vehicles to be viable for the consumer market.				
Diesel	GOOD	FAIR	GOOD	GOOD	FAIR	VERY GOOD	FAIR	Honda is actively developing advanced diesel engine technology and markets its technology primarily in Europe, where the technology is more appealing due to diesel fuel prices that are significantly lower than gasoline prices.
	Modern diesel engines can meet stringent emissions standards. Diesel contains 13 percent more carbon than gasoline, eroding some of the CO_2 emissions benefits of the engine's higher efficiency, resulting in a score of "fair" for GHG reduction. Diesel vehicles offer up to 30 percent fuel-efficiency gains over similar conventional gasoline models, providing energy security benefits.			Diesel engines typically cost significantly more than their gasoline counterparts. In some markets outside North America, diesel fuel is taxed at a lower level than gasoline, resulting in lower prices, so the fuel savings can offset that cost. In North America, diesel fuel is usually more expensive than gasoline, and this is expected to continue into the future. Therefore, the added cost of the engines, together with the higher priced fuel, results in an overall higher cost. In recent years, diesel technology has seen improvements in a number of areas, including performance and noise.				

HONDA

Improving Fuel Efficiency and Reducing Greenhouse Gas Emissions cont'd

	Social Values			Marketability				Honda's effort
	AIR QUALITY	GHG REDUCTION	ENERGY SECURITY	INFRA-STRUCTURE	COST	FULL FUNCTION	APPEAL	
Biofuels	VERY GOOD	CHALLENGING-VERY GOOD	GOOD	CHALLENGING-VERY GOOD	GOOD-VERY GOOD	VERY GOOD	FAIR	All Honda and Acura automobiles, as well as the company's motorcycle and power equipment products, are capable of operating using E10 (10 percent ethanol in gasoline). From model year 2015, every Honda and Acura automobile is capable of operating on E15. Honda encourages the U.S. EPA to take steps to prevent the misfueling of small engine products and legacy vehicles with mid-level (greater than 10 percent) ethanol blends.
	Depending upon their feedstocks, land use changes and production processes, the greenhouse gas emissions from biofuels vary significantly. Certain biofuels offer significant opportunities to reduce petroleum use, although the scalability and volume potential of biofuels is unclear, hence the "good" rating. The greatest challenge is achieving sustainable biofuel processes that minimize impacts on land, water and food. There is concern about the volume of sustainable biofuels. From a policy perspective, prudence may suggest they be reserved for other forms of transportation that lack alternative options.			Infrastructure varies significantly: ethanol requires new infrastructure for transporting the fuel; however, some biofuels are "drop-in" fuels like bio-butanol or bio-diesel. Drop-in fuels have the potential to fit directly into existing infrastructure. Biofuels containing ethanol are less appealing to consumers since they must refuel more frequently due to the fuel's lower per-gallon energy content.				
Hybrid Electric Vehicles (HEVs)	VERY GOOD	GOOD	GOOD	VERY GOOD	FAIR	VERY GOOD	VERY GOOD	Honda helped pioneer hybrid technology with the launch of the 70-mpg[1] rated Insight in 1999. The company has continually advanced its technology in multiple generations of the Insight, Accord and Civic models, most recently with the launch of the 2018 Accord Hybrid and all-new 2019 Insight, both utilizing Honda two-motor hybrid technology. This third-generation two-motor system is more compact and efficient than before and packages the hybrid battery under the vehicle floor, which provides for improved convenience and utility, including a full-size trunk and a fold-down rear seat. Acura, Honda's luxury automobile brand, is now employing a three-motor hybrid design, marketed as Sport Hybrid Super-Handling All Wheel Drive™, in three of its six models: the Acura RLX sedan, the MDX seven-passenger SUV, and the NSX high-performance sports car. Honda intends to introduce hybrid technology to more models in North America in the years ahead.
	Hybridization can significantly increase fuel efficiency by utilizing the engine in its most efficient operating band, downsizing the engine, as well as using energy captured during deceleration and braking for motive power. These significant improvements in efficiency directly result in meaningful GHG reductions and corresponding reductions in gasoline consumption (Energy Security).			The cost premium versus gasoline-only vehicles remains the most significant barrier to broader market appeal. Hybrid automobiles are increasingly viewed as mainstream technology with a high level of appeal. Performance, safety features and utility of HEVs are virtually on par with conventional ICE vehicles.			

[1] The 70-mpg Insight was based on different rules for rating fuel economy, compared to today's rules.

HONDA

Improving Fuel Efficiency and Reducing Greenhouse Gas Emissions cont'd

	Social Values			Marketability				Honda's effort
	AIR QUALITY	GHG REDUCTION	ENERGY SECURITY	INFRA-STRUCTURE	COST	FULL FUNCTION	APPEAL	
Plug-In Hybrid Electric Vehicles (PHEVs)	VERY GOOD	VERY GOOD	VERY GOOD	FAIR	CHALLENGING	VERY GOOD	VERY GOOD	Honda introduced its first PHEV, the Accord Plug-In Hybrid, in 2013 as the first vehicle to utilize the company's two-motor hybrid technology. In 2018, Honda introduced its second PHEV, the Clarity Plug-In Hybrid sedan U.S. and Canada customers. The Clarity Plug-In Hybrid offers a spacious and premium five-person cabin and carries a 47 mile EPA-all-electric driving range rating. Honda intends to expand plug-in hybrid technology to more models in North America in the years ahead.
	PHEVs use both gasoline and grid-based electricity. Honda supports a "well-to-wheels" approach for evaluating all technologies (including gasoline and diesel). Accordingly, both the on-board (gasoline) and remote (electricity) GHG emissions must be accounted for in the overall evaluation of PHEVs. While OEMs are accountable for the environmental performance of their vehicles; utilities should be accountable for the grid.			While most PHEVs can utilize conventional 120V AC electricity, not all consumers have consistent access to off-street parking with electricity in close proximity. PHEV marketability could be improved with greater build-out of public and workplace charging infrastructure.				
	Using grid-based electricity in place of gasoline results in reduced consumption, enhancing energy security.			Cost remains a significant barrier to broader marketability. The incremental fuel savings between HEVs and PHEVs is not sufficient to offset the incremental PHEV costs, based on current battery and gasoline costs.				
				Plug-in hybrids offer similar utility and performance to conventional hybrids.				
Battery Electric Vehicles (BEVs)	VERY GOOD	VERY GOOD	VERY GOOD	CHALLENGING	CHALLENGING	CHALLENGING	VERY GOOD	Honda was first to market an advanced battery electric vehicle in the U.S., and has continued to advance its technology through vehicles like the Fit EV, leased to consumers in California and select East Coast markets from 2012 until 2016. In late 2017, Honda began leasing its new Clarity Electric midsize sedan to consumers in California and Oregon.
	BEVs use grid electricity for motive power. The stationary source (powerplant) GHG emissions must be accounted for in the overall evaluation of BEVs. While OEMs are accountable for the environmental performance of their vehicles; utilities should be accountable for their grid emissions.			BEVs require access to consistent, off-street parking and the installation of specialized charging equipment with 240V AC capability. In addition, a network of DC Fast Charging (defined as 80 percent charge in 30 minutes or less) will be helpful to fully market these vehicles.				In July 2018, Honda and General Motors announced a collaboration for the development of next-generation electric vehicle battery technology. Honda has also initiated and/or joined several research projects investigating smart charging, energy grid services and other potential ancillary benefits of connecting EVs with the U.S. electric grid.
	Cleaning up the emissions from powerplants is an ongoing challenge. Increasing the generation of electricity from renewable energy sources, and reducing reliance on CO_2-intensive sources such as coal are examples of grid mix shifts that can make BEVs more environmentally attractive.			With respect to "full functionality," BEVs have limited range and long recharge times. Further, range can vary substantially based upon environmental conditions (temperature, humidity, etc.).				
				Although electricity costs are significantly lower than gasoline costs on a per-mile basis, the higher initial costs of advanced batteries remain a challenging obstacle to marketability on a broad scale.				
	BEVs substitute energy from the electric grid (or, in certain cases, distributed renewable generation) for petroleum consumption, enhancing energy security.			BEVs can excel in the attributes of quiet and responsive driving, which are appealing to consumers.				
				Extension of range and performance enhancement and capability requires the addition of more batteries with significant packaging and weight penalties.				

HONDA

Improving Fuel Efficiency and Reducing Greenhouse Gas Emissions cont'd

Fuel Cell Electric Vehicles (FCVs)

Social Values			Marketability				Honda's effort
AIR QUALITY	GHG REDUCTION	ENERGY SECURITY	INFRA-STRUCTURE	COST	FULL FUNCTION	APPEAL	
VERY GOOD	VERY GOOD	VERY GOOD	CHALLENGING	CHALLENGING	GOOD	VERY GOOD	
On a well-to-wheels basis, most hydrogen pathways are extremely clean. Hydrogen is identified by the California Air Resources Board as one of its ultra-low carbon fuel pathways. Hydrogen can be sourced in many different ways, including from electrolysis and from hydrocarbons. Either of these two methods replaces petroleum.			The cost of fuel cell technology and the very limited refueling infrastructure remain significant barriers, though California is making a significant commitment to helping foster a fueling station network. Fuel cell vehicles deliver performance, utility, comfort, refueling time and driving range virtually on par with conventional gasoline-powered automobiles.				Honda has long helped lead the advancement of fuel cell vehicle technology, prioritizing real-world experience with regular customers and, in the process, overcoming numerous market and technical hurdles. In late 2016, Honda introduced its newest FCV, the Clarity Fuel Cell, a stylish, five-passenger sedan with a range rating of 366 miles, the highest of any zero-emissions vehicle. In July 2013, Honda and General Motors announced an effort to co-develop next-generation fuel cell system and hydrogen storage technologies, and announced in 2017 that Honda and GM will jointly produce these technologies in Brownsville, Michigan, beginning in or around the 2020 time frame. In late 2014, Honda also announced an investment of $13.8 million in FirstElement Fuel to further accelerate the network of public hydrogen refueling stations in California.

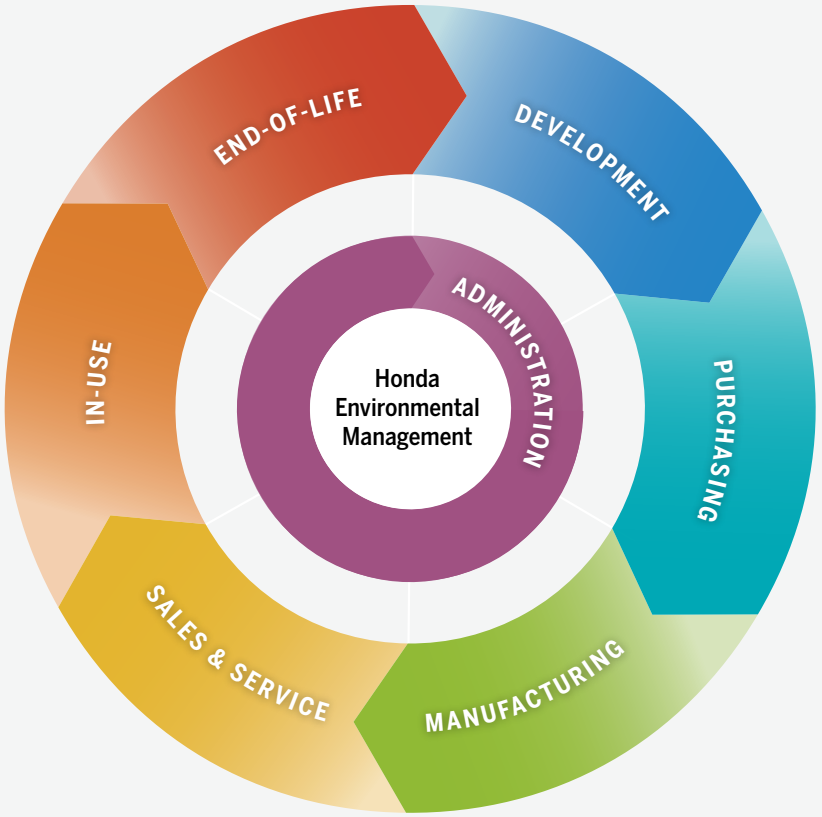
TECHNOLOGIES THAT APPLY TO ALL VEHICLES, REGARDLESS OF FUEL OR TYPE OF POWERTRAIN

Reducing Running Resistance

Social Values	Marketability	Honda's effort
Improved aerodynamic design, reduced tire rolling resistance, and lower vehicle mass can improve the fuel efficiency of any type of vehicle regardless of powertrain or energy source. This has a positive effect on both GHG reduction and petroleum consumption.	Efforts to reduce running resistance must be taken into account with other factors, including vehicle cost, performance, safety features and utility, in order to meet the expectations of customers while simultaneously advancing the social benefits of new products.	Honda is continually researching new means of reducing vehicle running resistance while delivering on the performance, utility, and safety requirements its customers demand. All new automobiles introduced over the decade have used increasing amounts of high-strength lightweight steel in vehicle body structures. The redesigned 2018 Accord utilizes 29 percent ultra-high-strength steel, the highest percentage ever for a mass-produced Honda vehicle. Other measures being undertaken to reduce running resistance include improved aerodynamic design. In 2017, the company announced plans to invest $124 million in an advanced new wind-tunnel research and testing facility in Ohio. The new facility, operated by Honda R&D Americas, will complement their current partial-scale wind tunnel, which combined with advanced computer simulations, has helped to improve the aerodynamic efficiency of new products.

Life Cycle Assessment

Honda recognizes Life Cycle Assessment (LCA) as a critical tool for understanding the impact of its products and operations on the environment, and is working to minimize that impact in virtually every aspect of its business.



DEVELOPMENT

Honda's R&D operations in North America are its largest outside of Japan. Engineers and designers are focused on creating products that reduce environmental impacts throughout the complete cycle of the products, including CO_2 emissions during customer use and also reductions in the use of nonrecyclable materials and potentially toxic substances such as in-cabin VOCs.

PURCHASING

Honda works with more than 650 new-vehicle component suppliers in North America that produce and ship tens of millions of parts to Honda plants in the region each year. Reducing their environmental impact, especially CO_2 emissions, is an area of increasing effort and focus for Honda.

MANUFACTURING

Honda operates 18 plants in North America producing upwards of 4 million products each year, including more than 90 percent of the Honda and Acura cars and light trucks sold in the region. On a global basis, manufacturing accounts for roughly 10 percent of the lifecycle CO_2 emissions of an automobile and is a major area of focus, along with reduction in waste, water use and toxic substances.

SALES & SERVICE

Honda is focused on cutting CO_2 emissions from the transport of Honda and Acura products from manufacturing plants to dealers, and on reducing the energy use and emissions at the point of sale through its "green dealer" initiatives. Honda is also working to reduce CO_2 emissions from the transport of service parts, as well as reducing waste from the packaging and storage of parts.

IN-USE

CO_2 emissions from the consumption of fuel during customer use is the single greatest environmental impact of Honda products. Honda is working to reduce in-use CO_2 emissions through continued improvements in product fuel efficiency and advances in low-carbon alternative fuels and powertrains. Honda is also working to reduce air pollutants emitted from its products during customer use.

END-OF-LIFE

Honda works to design products that are easy to disassemble and process for recycling at the end of their useful life, to reduce the use of potentially harmful substances that can become part of the waste stream after disassembly, and also to increase the use of recycled and remanufactured parts to reduce waste.

ADMINISTRATION

Honda operates dozens of offices and warehouse facilities in North America and is working to improve its energy efficiency and also to reduce waste and other impact from administrative activities. This includes leading efforts in the area of "green building" design and certification.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Designing Products with the Environment in Mind

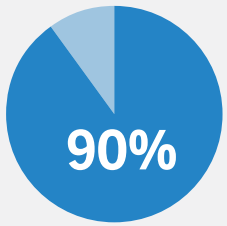
Environmental factors are considered early and in each phase of the design and development process of every Honda and Acura product. In component design and in the selection of materials, Honda looks for opportunities to reduce a product's total environmental footprint, including its impact at the end of its useful life. Accordingly, Honda engineers take into account such factors as dismantling complexity, component remanufacturing and the minimization of substances of concern (SOCs).

Product Recyclability

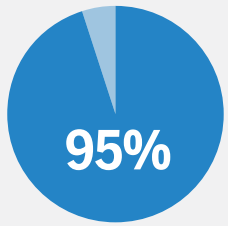
In accordance with its global standard for the development of Honda automotive products, the company has achieved and is committed to maintaining recyclability and recoverability levels as shown below since 2004:

MINIMUM LEVELS OF DESIGN RECYCLABILITY[1]

Automobiles



Powersports & Power Equipment



Honda's recyclability and recoverability calculation methods are based on a standard widely adopted by automobile manufacturers (ISO 22628) to determine the level of recyclability and recoverability in any particular vehicle.

Honda will continue to look for new ways to improve the design recyclability of future products, in balance with other critical considerations, such as quality, efficiency, cost and durability.

[1] Honda's calculation of product recyclability is based on the ISO standard 22628, titled "Road Vehicles Recyclability and Recoverability Calculation Method," which bases its estimates on existing, proven treatment technologies and takes into account the mass of materials recycled, reused, recovered for energy or otherwise diverted from landfill disposal.

Reducing PVC in Honda and Acura Automobiles

Honda's goal is to have a PVC-free material construction for interiors on all of its vehicles. Through the end of FY2017, the vast majority of Honda and Acura models had PVC-free interiors. Where PVC is still employed, primarily in more affordable products where the cost of implementation was determined to be prohibitive, Honda continues to investigate cost-effective alternatives to PVC. Although Honda has minimized the number of vehicle parts containing PVC, technical barriers, quality and cost present a challenge to its total elimination.

MODEL	PVC INTERIOR CONTENT
2018 Honda Fit	Sunvisor, manual transmission shift knob
2018 Honda Civic	None
2018 Honda Accord	None
2018 Honda Clarity	None
2018 Honda HR-V	Sunvisor
2018 Honda CR-V	Sunvisor
2019 Honda Insight	None
2018 Honda Odyssey	None
2018 Honda Pilot	None
2018 Honda Ridgeline	None
2018 Acura ILX	None
2018 Acura RLX	None
2019 Acura RDX	None
2018 Acura MDX	None
2018 Acura NSX	None

Air Quality/Cabin VOC

In line with Honda's strategy to reduce the use of hazardous or potentially harmful substances in its products, Honda is also working to more adequately measure and predict levels of in-cabin VOCs.

- Several low in-cabin VOC technologies, such as low-VOC adhesives, tapes, foams and coating materials, have been applied to Acura and Honda models since 2007.
- Honda will continue its efforts to reduce cabin VOCs and to improve air quality in the cabins of all its vehicles.

HONDA

2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

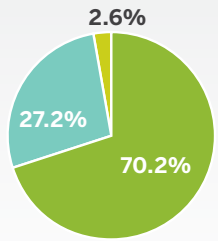
CO_2e Emissions

Approximately 97 percent of CO_2e emissions from manufacturing operations in North America fall into two categories: (1) indirect emissions from the production of electricity purchased and consumed by Honda factories; and (2) direct emissions from consumption of natural gas. Honda plants use electricity for automation, lighting, motors, air compressors and cooling. Natural gas is needed for heating and conditioning fresh air, and for manufacturing process equipment such as melt furnaces and paint curing ovens.

In FY2018, total CO_2e emissions from these two categories rose 4.8 percent. In FY2018, the CO_2e emissions increased primarily due to the cold winter weather, new model work weekend activity and plant expansion activities at multiple facilities.

CO_2e Emissions from Manufacturing in North America

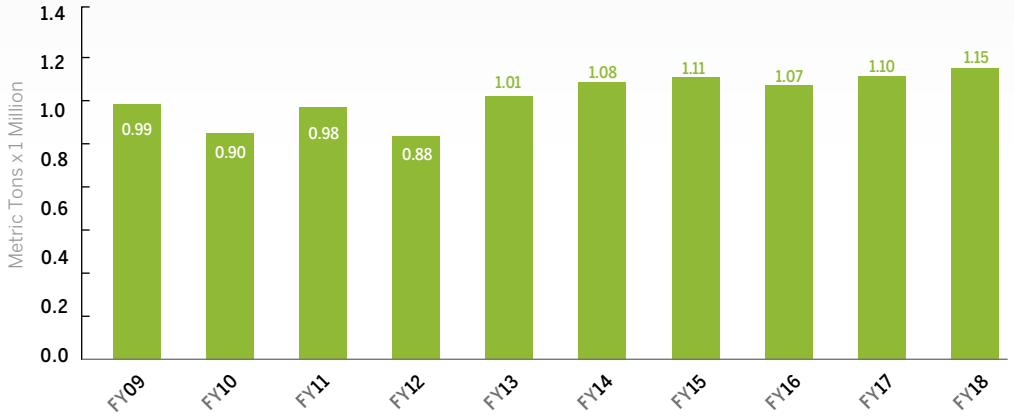
SOURCES OF CO_2e EMISSIONS



70.2%	Electricity
27.2%	Natural Gas
2.6%	Other Fuels and process emissions

TOTAL CO_2e EMISSIONS FROM MANUFACTURING (FROM PURCHASED ELECTRICITY AND NATURAL GAS)[1]

FY18 RESULTS **4.8% increase in CO_2e emissions vs. previous year**



[1]Scope 2 emissions use Location-Based CO2 emission factor as defined in WRI GHG Protocol Scope 2 Guidance.

HONDA

CO_2e Emissions cont'd

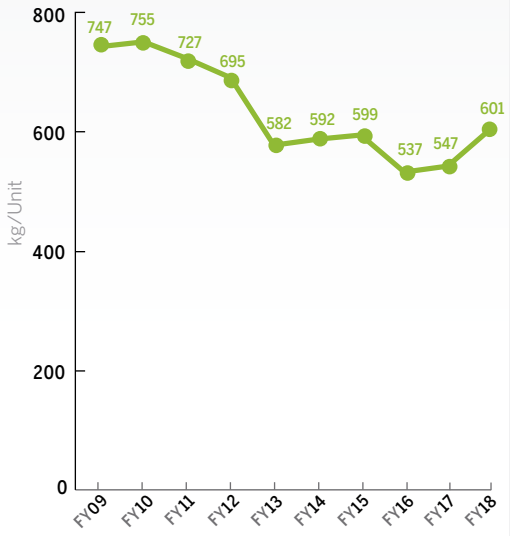
Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Per-Unit CO_2e Emissions (Emissions Intensity)

AUTOMOBILE MANUFACTURING[1]

FY18 RESULTS

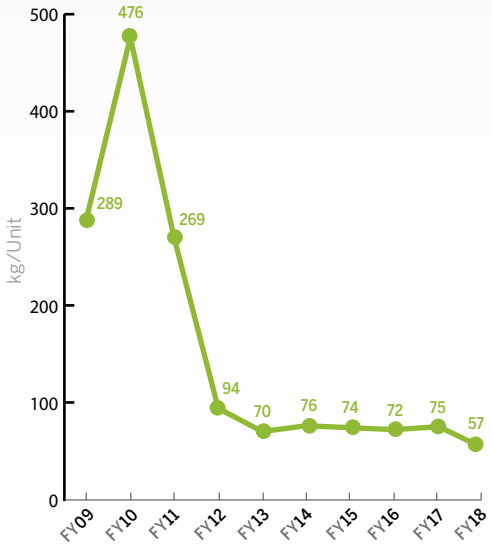
9.8% increase vs. previous year



POWERSPORTS PRODUCT MANUFACTURING[1]

FY18 RESULTS

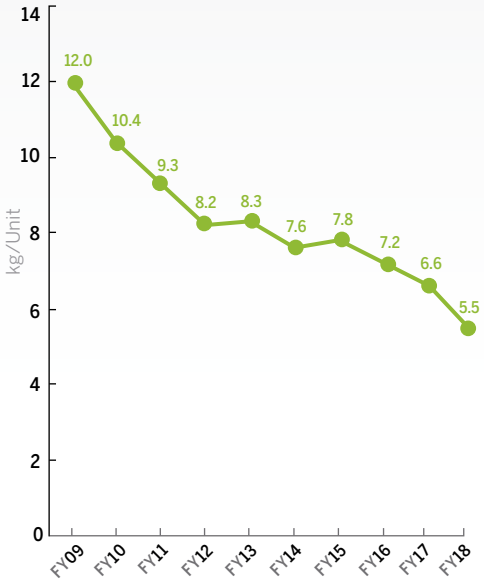
23.7% decrease vs. previous year



POWER EQUIPMENT PRODUCT MANUFACTURING[1]

FY18 RESULTS

16.7% decrease vs. previous year



[1]CO_2e emissions from the consumption of electricity and natural gas, representing approximately all CO_2e emissions from manufacturing operations in North America.

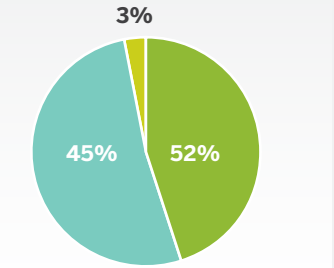
Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Energy Use

Electricity and natural gas represent approximately 97 percent of total energy consumption by Honda's North American manufacturing plants. Auto manufacturing operations were able to improve the energy intensity of auto manufacturing despite ongoing expansion of plant operations and increasing automation. Total and per-unit energy use increased due to plant expansion and weekend work attributed to new model launch preparations. This expansion and increased energy usage without increasing the number of vehicles produced resulted in both an overall increase in energy usage and per-unit energy use.

Energy Consumption

ENERGY USE BY SOURCE



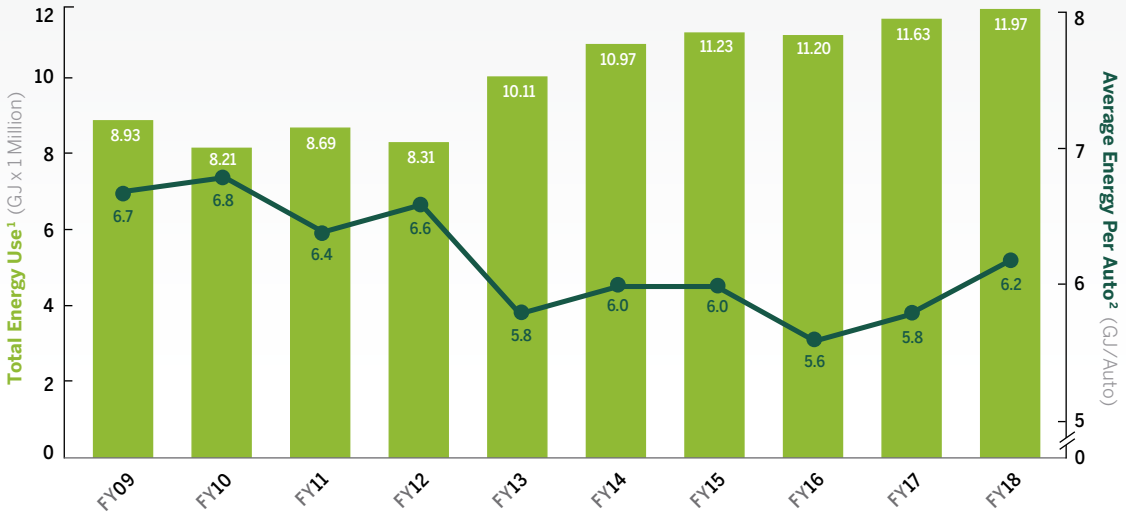
52%	Natural Gas
45%	Electricity
3%	Other Fuels Propane, fuel oil, gasoline, coke, kerosene and others

ENERGY USE IN MANUFACTURING (TOTAL AND PER AUTO)

FY18 RESULTS

Total Energy Use:
2.9% increase vs. previous year

Energy Use Per Auto:
7.5% increase vs. previous year



[1] Total energy use from the consumption of electricity and natural from all included North American manufacturing operations.

[2] Energy per-unit encompasses total energy use from the consumption of electricity and natural gas from all included automotive-related manufacturing activity.

HONDA

Waste

Honda strives to minimize waste in manufacturing and, where possible, to reduce its environmental impact. Honda's management strategy is based on a hierarchy that ranks waste management methods based on environmental preference. Use of waste for energy recovery is preferable to landfill, and recycling/reuse is preferable to energy recovery. Through this methodology, the company has substantially reduced waste to landfills (see next page). With respect to solid waste creation, FY2018 levels decreased 4 percent, while solid waste per unit of automobile production increased slightly.

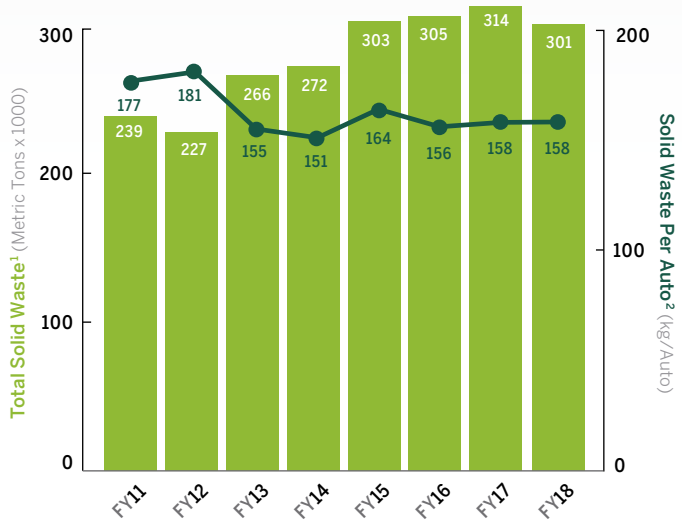
Waste from Manufacturing Operations

SOLID WASTE FROM MANUFACTURING IN NORTH AMERICA

FY18 RESULTS

Total Solid Waste:
4.1% decrease vs. previous year

Solid Waste Per Auto:
0.1% increase vs. previous year



[1] Total waste includes all waste generated from all included NA manufacturing operations.

[2] Total waste per auto includes all waste generated at all included auto-related manufacturing operations, including automobile engines and transmissions.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Waste cont'd

Honda set a target in FY2009 to achieve virtually zero waste to landfill — defined as less than 1 percent of all operating waste for all North American auto, powersports and power equipment manufacturing operations. This goal was achieved from FY2011 to FY2014. Following a temporary increase in FY2015, due in large measure to issues related to the start of production operations at the company's Celaya, Mexico auto plant, Honda is again operating with virtually zero waste to landfills for its manufacturing operations in North America.

Honda Zero Waste to Landfill Initiative

LANDFILL WASTE FROM MANUFACTURING FACILITIES IN NORTH AMERICA

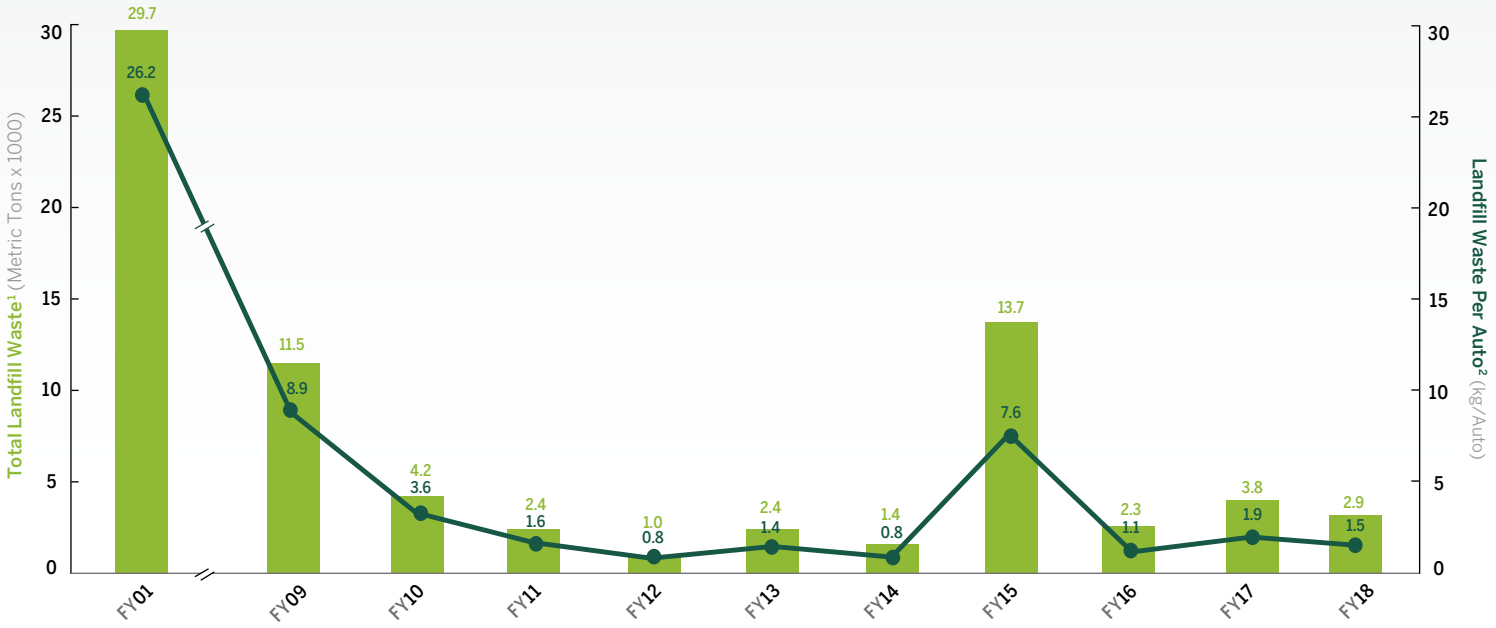
FY18 RESULTS

Total Landfill Waste:

- 90% decrease vs. baseline (FY01)
- 23.7% decrease vs. previous year

Landfill Waste Per Auto:

- 94% decrease vs. baseline (FY01)
- 22.6% decrease vs. previous year



[1] Total landfill waste includes all landfill waste from all included NA manufacturing operations.

[2] Total landfill waste per auto includes all landfill waste from all included auto-related manufacturing operations, including automobile engines and transmissions.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

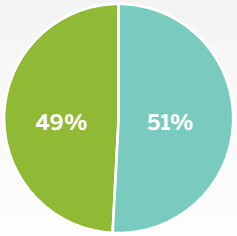
HONDA

Water Use

Honda's North American plants' water efficiency improved over last year. In FY2018, total water use and water use intensity per automobile decreased. This decrease was due to a decreased in production and a cooling summer which decreased the use of water in plant coolers towers.

Water Use

WATER USE BY SOURCE



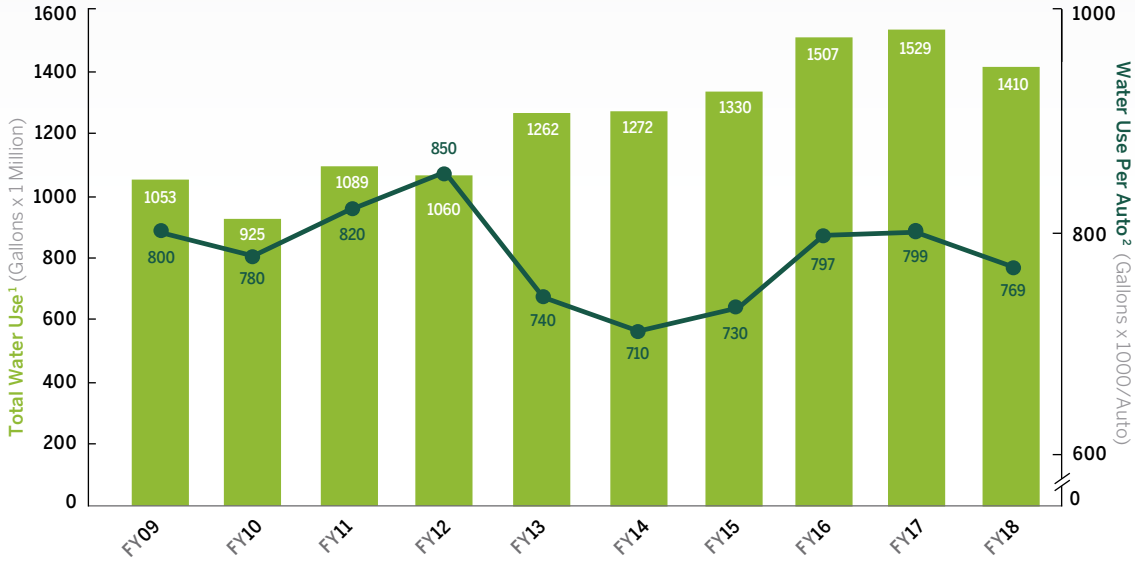
51%	Purchased from Local Utilities
49%	Direct Ground Water Withdrawal
< 1%	Rainwater

WATER USE IN NORTH AMERICAN MANUFACTURING FACILITIES

FY18 RESULTS

Total Water Use:
7.8% decrease vs. previous year

Water Use Per Auto:
3.8% decrease vs. previous year



[1] Total water use includes all water withdrawn from all included NA manufacturing operations. It excludes recycle.

[2] Total water use per auto includes all water use (includes recycle water) from all included auto-related manufacturing operations, including automobile engines and transmissions.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

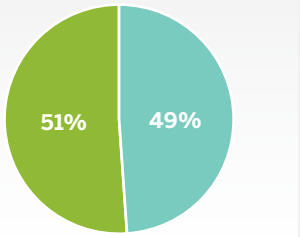
Water Use cont'd

Wastewater Management

Domestic wastewater is generated from the use of restrooms, water fountains, cafeteria operations and air conditioning related to associate (employee) comfort. Industrial wastewater is generated primarily from painting, surface treatment and machining operations. Plants that generate industrial wastewater pre-treat the wastewater on site to reduce the contaminants to below regulated levels before the water is discharged into local municipal wastewater treatment plants. The pre-treated wastewater must meet regulatory requirements established at municipal, state and federal levels. Less than one percent of wastewater is trucked off-site for treatment. Manufacturing plants also discharge wastewater directly to local waterways under National Pollutant Discharge Elimination System (NPDES) permits. These permits allow the discharge of storm water associated with industrial activities, water plant lime sedimentation basin discharge, cooling tower blow down and air conditioning condensate discharge. The NPDES permits set contaminant limits and mandate periodic sampling and reporting.

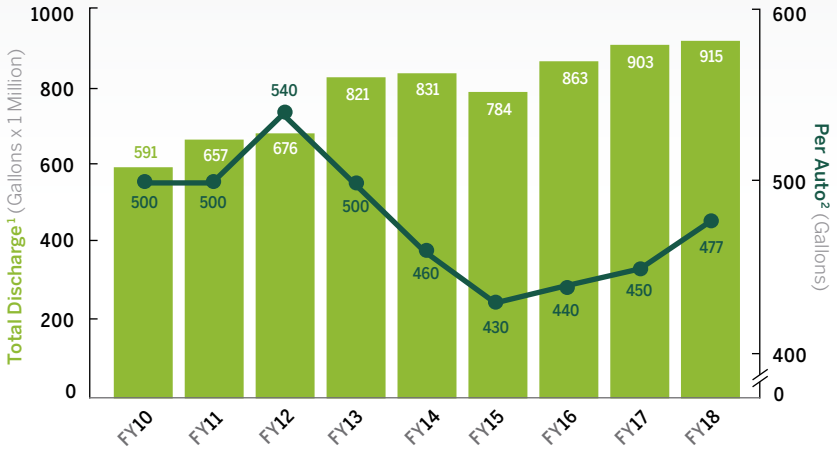
Wastewater Discharge and Disposal

WASTEWATER DISCHARGED FROM N.A. MANUFACTURING FACILITIES



49%	Domestic Wastewater
51%	Industrial Wastewater
0%	Trucked Off-Site

INDUSTRIAL WASTEWATER DISCHARGED FROM NORTH AMERICAN MANUFACTURING FACILITIES



FY18 RESULTS

Total Discharge:
1.3% increase vs. previous year

Per Auto:
6.0% increase vs. previous year

[1] Total wastewater includes all wastewater discharged from all included NA manufacturing operations.

[2] Total wastewater per auto includes all wastewater from all included auto-related manufacturing operations, including automobile engines and transmissions.

2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Air Emissions

Honda plants release various "criteria" air contaminants, including volatile organic compounds (VOCs), particulate matter (PM), oxides of nitrogen (NO_X), oxides of sulfur (SO_X) and carbon monoxide (CO). VOC emissions typically come from painting operations. PM emissions usually result from metal casting and finishing processes and from painting operations. NO_X and CO emissions typically result from the combustion of natural gas and other fuels for heating and process needs, and from the use of engine and full-vehicle testing dynamometers. Air emissions are permitted and controlled in accordance with applicable laws and regulations. Each plant routinely monitors, tracks and reports emissions levels to regulatory agencies in accordance with U.S. federal and state and Canadian provincial government requirements. Honda factories are routinely inspected for compliance with legal requirements.

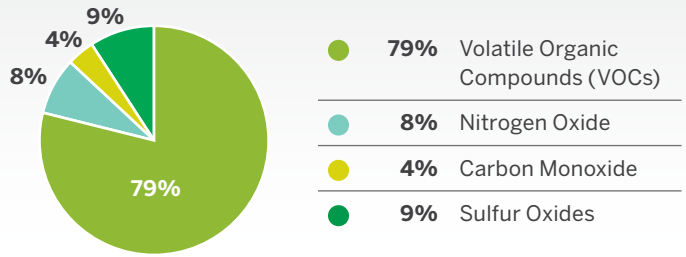
VOC Emissions from Auto Body Painting

VOC Emissions from Auto Body Painting Auto painting operations are the primary source of volatile organic compound (VOC) emissions released from Honda's North American manufacturing plants. It has always been Honda's policy to minimize the release of VOCs by adopting less polluting painting processes whenever possible. VOC emissions from auto-body painting operations in FY2018 were well below the company's targeted maximum of 20 g/m^2.

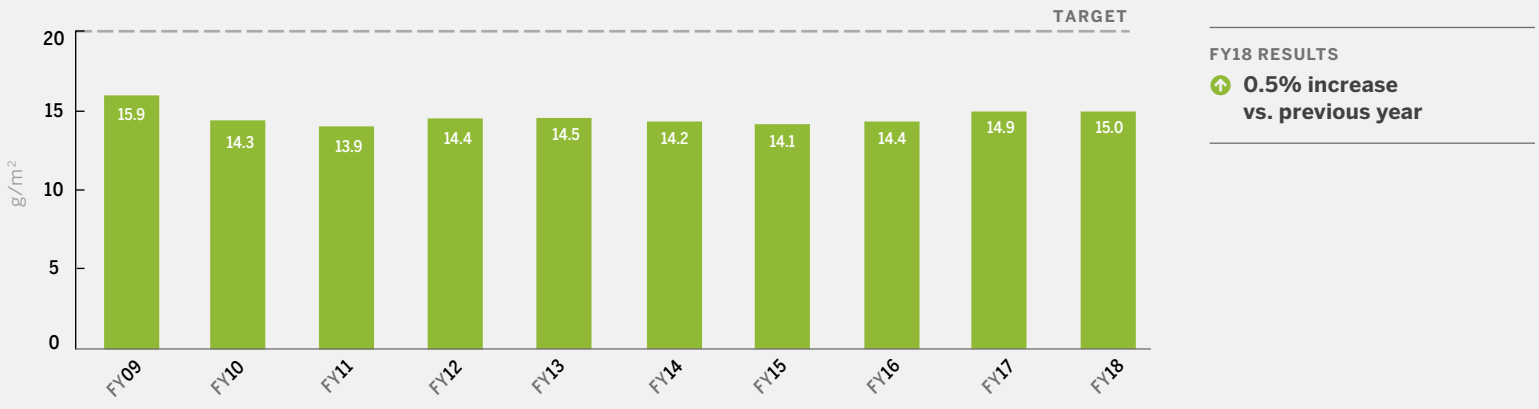
Air Emissions

In calendar year 2018, Honda's North American manufacturing plants released approximately 4314 metric tons of criteria air pollutants. Overall, 79 percent of the air contaminants released were VOCs.

MAKEUP OF AIR EMISSIONS FOR N.A. MANUFACTURING FACILITIES



VOC EMISSIONS FROM AUTO BODY PAINTING IN NORTH AMERICA



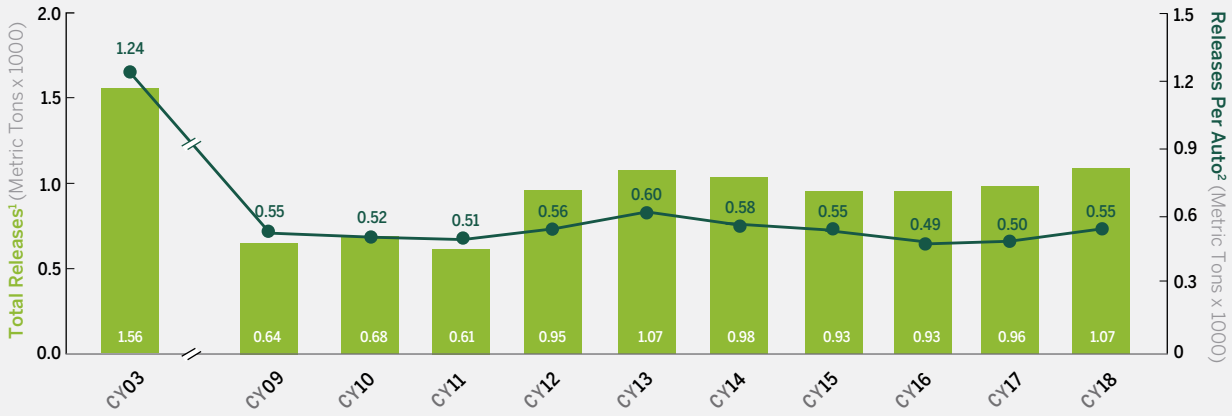
FY18 RESULTS

0.5% increase vs. previous year

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Chemical Releases

TOTAL AND PER-AUTO TRI/NPRI RELEASES FROM PLANTS IN THE U.S. AND CANADA



FY18 RESULTS

Total Releases:

- **11.2% increase vs. previous year**
- **31.2% decrease vs. baseline (CY03)**

Releases Per Auto:

- **9.7% increase vs. previous year**
- **55.8% decrease vs. baseline (CY03)**

[1] Total TRI/NPRI includes reported emissions from all included US and Canada manufacturing operations.

[2] Total TRI/NPRI per auto includes all TRI/NPRI reported emissions from all US and Canada auto-related manufacturing operations, including automobile engines and transmissions.

Honda has reduced its total Toxic Release Inventory (TRI) and National Pollutant Release Inventory (NPRI) emissions by about 31 percent since calendar year 2003, despite significant expansions in production capacity. Automobile-specific TRI/NPRI emissions per unit of production were reduced about 56 percent in the United States and Canada in the same period.

Reducing Chemical Release — TRI/NPRI Reporting

Honda operations in the United States and Canada report total chemical releases annually in accordance with regulatory requirements. In the United States, TRI data are submitted to both state and federal environmental protection agencies. They are available for public review at www.epa.gov. In Canada, NPRI data are submitted to Environment Canada and to the Ontario Ministry of the Environment, and are available for public review at http://www.ec.gc.ca/inrp-npri.

Accidental Spill and Release Prevention, Tracking and Reporting

Prevention of environmental spills and releases is a key design consideration for all Honda manufacturing facilities. Exterior chemical and wastewater storage tanks and transfer systems are constructed with materials and designs that help minimize the risks of leaks and spills. Most exterior tanks and piping systems have backup containment capabilities to help recover any leaked or spilled material. Additionally, storage tanks are equipped with alarms to give advance warning of overfilling. Virtually all materials with the potential for release are handled within enclosed buildings. Learning from accidental releases is critical to preventing future occurrences. Therefore, Honda tracks all significant incidents. Major incidents undergo root-cause analysis, and Honda uses the information to improve operations.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Distribution of Honda Products

Through shifts to more efficient modes of transport and other initiatives, Honda is working to reduce CO_2 emissions from the shipment of its products from Honda plants to Honda and Acura dealers in North America. Since FY2009, Honda has achieved a 5.3 percent reduction in the CO_2 emissions intensity of automobile shipments in the U.S.

Modal Shifts

The vast majority of Honda and Acura automobiles that are produced in North America are moved from the company's plants by train to railheads, where they are transferred, primarily by truck, to Honda and Acura dealers. Rail shipments offer significantly more energy efficiency and reduced CO_2 emissions compared to truck transport.

CO_2 Emissions from the Transportation of Service Parts in the United States

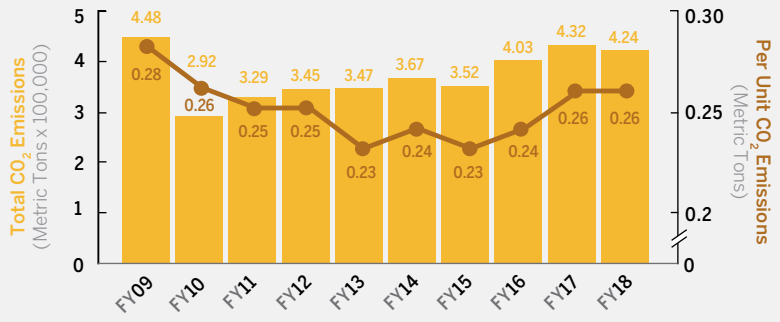
Honda also endeavors to reduce CO_2 emissions associated with the distribution of service parts from its supplier factories to its warehouses and, ultimately, to dealerships. These efforts include the use of more fuel-efficient trucks, the shift from truck to rail for cargo shipment, more efficient packing of tractor trailers and the reengineering of drive routes for improved efficiency. As a result, Honda has reduced the CO_2 emissions intensity of U.S. service parts shipments by 46.1 percent from FY2009 levels.

CO_2e EMISSIONS OF AUTOMOBILE SHIPMENTS IN NORTH AMERICA

FY18 RESULTS

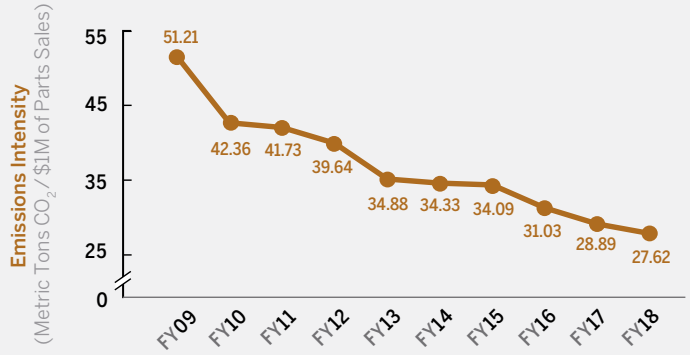
Total Emissions:
- 2% decrease vs. previous year
- 5.3% decrease vs. baseline (FY09)

Per Unit Emissions:
- No change vs. previous year
- 7.1 decrease vs. baseline (FY09)



CO_2 EMISSIONS INTENSITY OF NORTH AMERICA SERVICE PARTS SHIPMENTS

FY18 RESULTS
- 4.4% decrease vs. previous year
- 46.1% decrease vs baseline (FY09)



HONDA

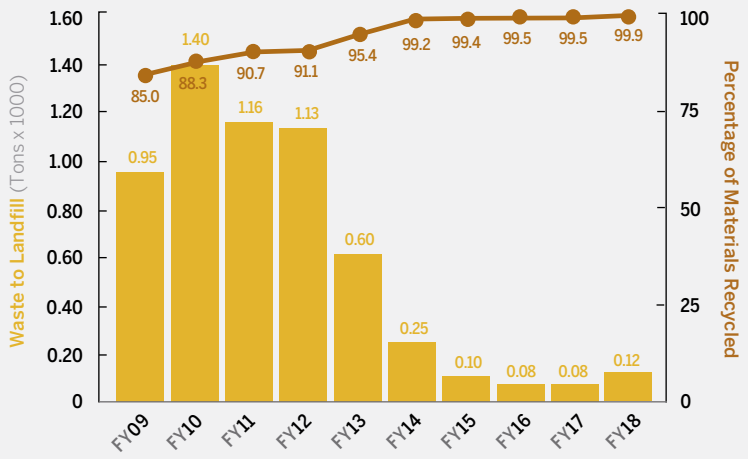
Zero Waste to Landfill Parts Distribution Centers

Honda operates nine parts distribution centers and three hub facilities in the United States. The company's goal is to achieve zero waste to landfill for all 12 of these facilities. Waste material sent to landfills from Honda's U.S. parts distribution facilities has been reduced 87 percent, from 950 tons in FY2009 to 12 tons in FY2018, with only 0.01 percent of total waste sent to landfills in FY2018.

FY18 RESULTS

87% decrease vs. baseline (FY09)

WASTE TO LANDFILL FROM U.S. PARTS CENTERS



2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Honda and Acura 'Green Dealer' Program

American Honda launched a 'Green Dealer' program in FY2012 to help independently owned and operated Honda and Acura automobile dealers in the U.S. reduce their environmental impact. In FY2014, the program was extended to motorcycle and power equipment dealers. The program, which has since been expanded into Latin America and the Caribbean, recognizes dealers who implement recommended sustainable practices with three award levels — Silver, Gold and Platinum.

The award criteria are based on a verified reduction in energy use and a rigorous point system that incorporates environmental improvement measures. Professional engineers evaluate dealerships' environmental performance and recommend strategies for reducing their environmental impact.

At the end of FY2017, over 700 U.S. Honda and Acura dealers across all product lines were enrolled in the program and more than 200 have received an award. Improvement made at these dealerships resulted in a total annual reduction of 24,000 tons of CO_2 and cumulative annual operating cost reduction of more than $13 million.

Three have earned the distinction of being electric grid neutral. These dealers produce as much or more energy from renewable energy sources than they consume from their local electric utilities over a one-year measurement period.

Honda's Green Dealer Guide and a list of U.S. dealers who have earned the Honda or Acura Environmental Leadership Award are listed on greendealer.honda.com.

The program offers three achievement levels:

Award Criteria[1]

	SILVER AWARD	GOLD AWARD	PLATINUM AWARD
Existing Facilities	40 points 10% energy use reduction	60 points 30% energy use reduction	80 points 50% energy use reduction
New Builds and Major Renovations	40 points	60 points	80 points
	Fast Track to Platinum — "Electric Grid Neutral"		

[1] Full program details and energy reduction requirements subject to change as the program changes and grows. "Electric Grid Neutral" means that when averaged over one year, the dealership offsets its grid electric use with an equal amount of on-site renewable generation exported to the grid.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Honda and Acura Green Dealer Program cont'd

The solar roof at Mohawk Honda, Schenectady, NY is one of the methods used by the dealership to be electric grid neutral.

Sharing our dream with others

To establish Honda's leadership in dealership sustainability, the Honda Green Dealer Guide was created in 2012 and updated in 2017. This guide provides step-by-step guidance to implement systems and technologies that help dealers achieve their carbon and water reduction goals. To benefit society, the Honda Green Dealer Guide was released to the public as well, intended to help dealers across all brands and commercial buildings with similar energy needs. The guide will be updated as necessary to reflect new technology advancements.

Honda and Acura dealers who received the Environmental Leadership Award implemented numerous environmental best practices such as:

- Replacing lighting with LEDs
- Installing motion sensors that turn lights off when not in use
- Replacing older air conditioning and heating systems with more energy-efficient equipment
- Setting thermostats at optimal temperatures
- Installing solar panels
- Adding rainwater collection systems, and planting native vegetation to reduce irrigation water use.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

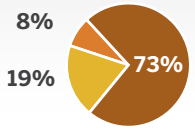
HONDA

Automobiles

Fuel Efficiency

According to the latest government research, approximately three quarters of a typical vehicle's life-cycle GHG emissions occurs during in-use operation. As fuel efficiency continues to improve, the relative impact of manufacturing will decline.

SOURCES OF AUTOMOBILE LIFE CYCLE GHG EMISSIONS[1]



- **73%** Product In-Use
- **19%** Upstream Fuel Production
- **8%** Product Manufacturing

[1] Source: Argonne National Laboratory's GREET 2017 life-cycle emissions model. Results shown for a model year 2018 conventional gasoline vehicle.

Understanding MPGs and GHGs

While most consumers think about fuel economy as the pair of numbers on a new vehicle window label, in truth there are multiple sets of related data used by government agencies and the auto industry to quantify environmental performance. Because they have similar names, differentiating them can sometimes be difficult. Below is a summary of what they are, and how they differ from each other.

Corporate Average Fuel Economy (CAFE) (miles per gallon): Federal law requires that the fuel economy of each model be evaluated in a laboratory by running vehicles on a treadmill-like "dynamometer" using specific government test procedures. These tests, designed in the mid-1970s to mimic "typical" driving, are written into law. Yet because vehicles and the driving environment have both changed substantially over the past four decades, the resulting "CAFE MPG" value is higher than what consumers typically achieve on today's roads. CAFE MPG values are used by government agencies regularly, but are generally not used or seen by consumers.

Adjusted (or "Window Label") Fuel Economy Ratings (miles per gallon): Recognizing that CAFE MPG values do not accurately reflect real-world fuel economy, the government over the years developed a series of adjustment factors to bring CAFE results more in line with consumers' on-road experience. Recently, EPA added additional test procedures (known as the "five-cycle test") to further improve the accuracy of window label fuel-economy ratings.

GHG Emissions (grams per mile): In 2012, the government began regulating vehicle greenhouse gas emissions. Because burned fuel emits CO_2 (approximately 19.6 pounds per gallon of gasoline), there is a close relationship between fuel consumption and greenhouse gas emissions. However, other opportunities — such as improving A/C systems to reduce refrigerant leakage — can improve a vehicle's GHG performance independent of fuel economy. Like CAFE values, GHG emissions levels reflect the vehicle's performance using a predetermined laboratory test procedure and are thus used for complying with regulations. While these values are regularly assessed by the industry and government agencies, they do not reflect the real-world emissions performance of the vehicle.

A VEHICLE THAT ACHIEVES 175 G/MI[2] WOULD HAVE A FUEL ECONOMY OF:	MPG	
	CAFE FUEL ECONOMY	WINDOW LABEL FUEL ECONOMY RATING
Without A/C-based and off-cycle GHG improvements	50.8	approx. 39
With A/C-based and off-cycle GHG improvements	approx. 47	approx. 36

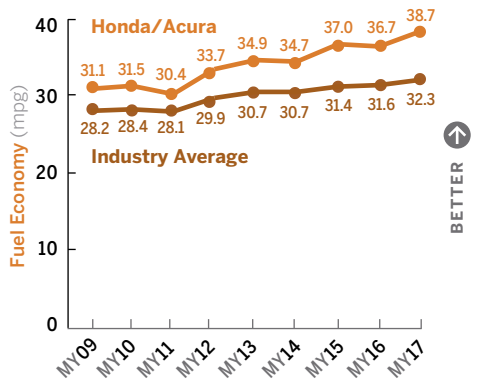
[2] Vehicle GHG standards set by the federal government are expected to result in a 2025 fleet average of 175 g/mi CO_2 equivalent. Numbers shown here are EPA estimates as indicated in Table 10.3 of the joint-agency Draft Technical Assessment Report, published July 2016.

HONDA

Automobiles cont'd

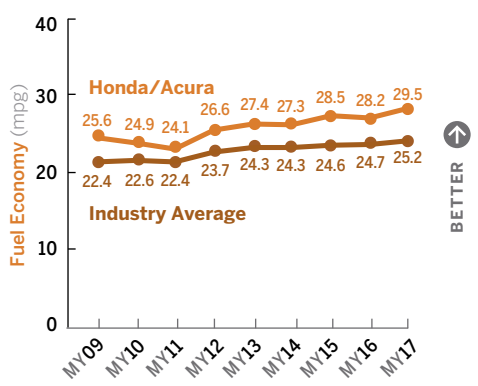
Corporate Average Fuel Economy (CAFE) and EPA "Window Label" Fuel Economy

U.S. CAR AND LIGHT TRUCK FLEETWIDE UNADJUSTED FUEL ECONOMY BY MODEL YEAR[1, 2]



MY17 RESULTS
- 5.4% increase vs. previous year
- 19.8% better than industry average

U.S. CAR AND LIGHT TRUCK FLEETWIDE ADJUSTED FUEL ECONOMY BY MODEL YEAR[2]



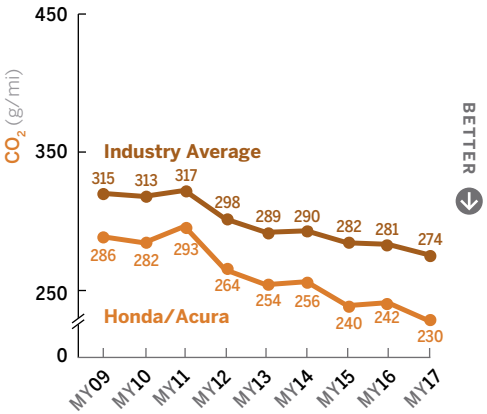
MY17 RESULTS
- 4.6% increase vs. previous year
- 17% better than industry average

[1] The U.S. Environmental Protection Agency (EPA) calculates "fuel economy" by the amount of miles traveled per gallon of gasoline for cars and light trucks, and calculates a sales-weighted Corporate Average Fuel Economy (CAFE) number for both passenger cars and light trucks. The combined values shown here are for comparison purposes only.

[2] Source: U.S. Environmental Protection Agency: Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2017, published January 2018 (Tables 4.2, 4.4, and 9.1).

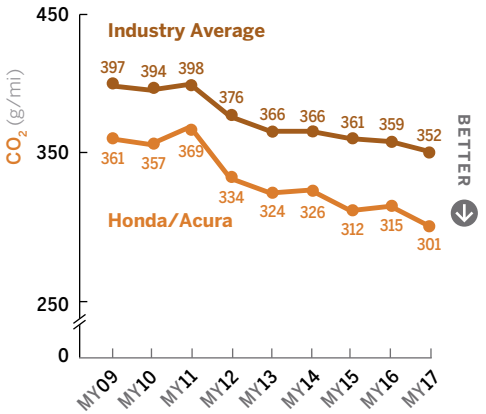
Fleetwide CO_2 Emissions of U.S. Automobiles

U.S. CAR AND LIGHT TRUCK UNADJUSTED (TEST VALUES) COMPOSITE CO_2 EMISSIONS BY MODEL YEAR[1]



MY17 RESULTS
- 5.0% decrease vs. previous year
- 16.1% better than industry average

U.S. CAR AND LIGHT TRUCK ADJUSTED (WINDOW LABEL) COMPOSITE CO_2 EMISSIONS BY MODEL YEAR[2]



MY17 RESULTS
- 4.4% decrease vs. previous year
- 14.4% better than industry average

[1] Source: U.S. Environmental Protection Agency: Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2017, published January 2018 (Table 4.5).
[2] Source: U.S. Environmental Protection Agency: Light-Duty Automotive Technology, Carbon Dioxide Emissions, and Fuel Economy Trends: 1975 through 2017, published January 2018 (Table 4.3)

HONDA

Automobiles cont'd

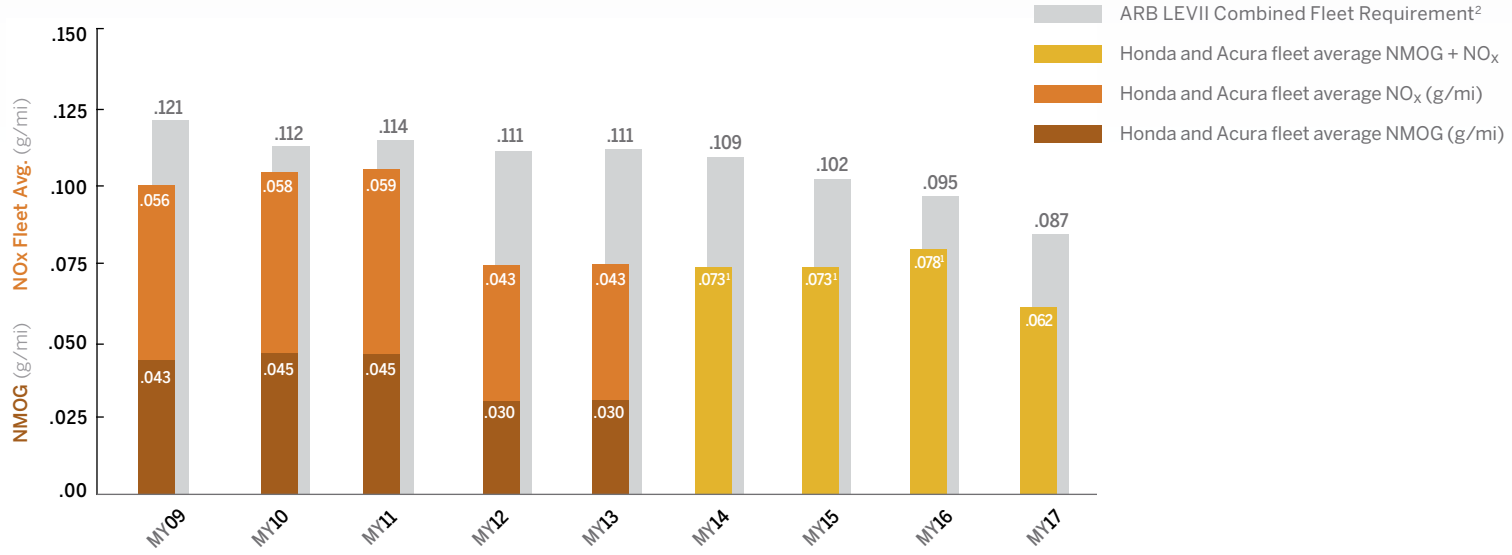
2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

Tailpipe Emissions

Non-methane organic gases (NMOG) tailpipe emissions are a pre-cursor to smog. The California Air Resources Board (CARB) regulates NMOG under the Low-Emissions Vehicle (1996 and later) and Low-Emissions Vehicle II (2004 and later) emissions standards. Honda has been very aggressive in reducing its fleet emissions below the LEV and LEV II standards.

FLEETWIDE NMOG + NO_X EMISSIONS VS ARB FLEET REQUIREMENT (CALIFORNIA)[1]



[1] Source: NMOG reports submitted to the California Air Resources Board by Honda, and NOx reports to U.S. EPA.

[2] Standards are now based on combined NMOG + Nox. Prior to MY2014, only NMOG standard was applicable. Estimated NMOG + NOx levels are shown here for comparison purposes only.

HONDA

Powersports Products

Fuel Efficiency

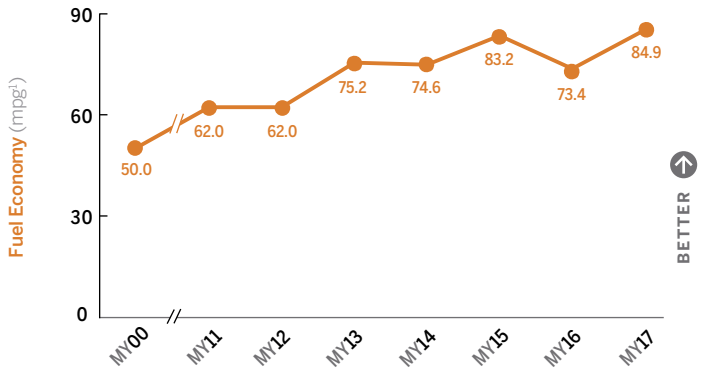
Relative to Model Year 2000, Honda has achieved a 69.8 percent improvement in the fleet-average fuel economy of on-road motorcycles sold in North America,[1] primarily through the expanded use of programmable electronic fuel injection (PGM-FI) and changes in its model mix to smaller, more fuel-efficient products.

The 2018 Honda Rebel 500 mixes old- and new-school style and is engaging and fun to ride but still achieved a laboratory estimated 67 MPG.

U.S. MOTORCYCLE FLEET AVERAGE FUEL ECONOMY BY MODEL YEAR

MY17 RESULTS

- **15.6% increase vs previous year**
- **69.8% improvement vs baseline (MY2000)**



[1] Honda calculation using U.S. EPA exhaust emissions data. FY00-09 data are based on actual sales, while 2010 and later are based on production volumes. Some MY production is sold in later years (ex: a 2009 MY motorcycle that is sold new in 2011) and was omitted by the earlier method.

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

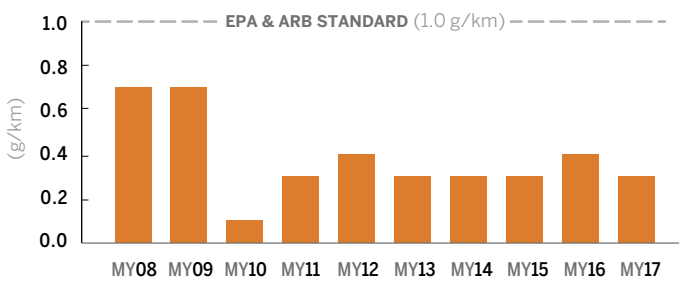
HONDA

Powersports Products cont'd

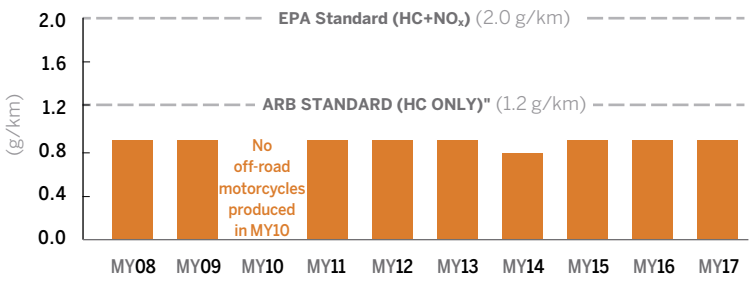
Tailpipe Emissions for Motorcycles, All-Terrain Vehicles (ATVs) and Utility Vehicles (UTVs)

In model year 2017, Honda substantially outperformed both U.S. EPA and California Air Resources Board (ARB) requirements for hydrocarbon (HC), nitrogen oxides (NO_x) and carbon monoxide (CO) exhaust emissions. In model year 2017, Honda also outperformed both EPA and CARB requirements for evaporative emissions and fuel permeation.

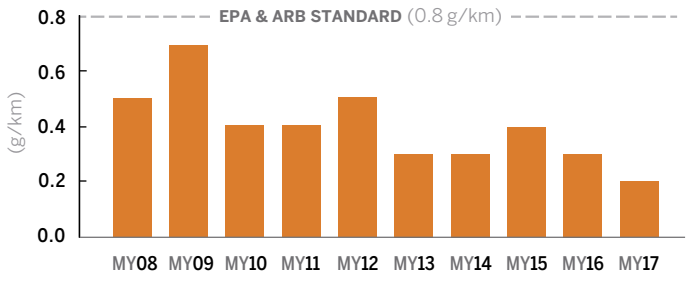
CLASS I AND II MOTORCYCLE FLEET EMISSIONS[1]



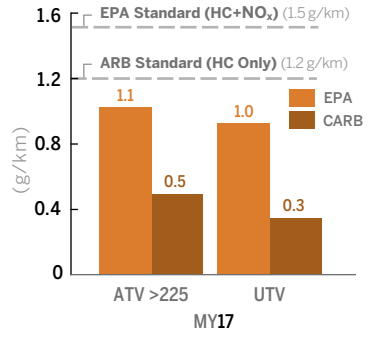
OFF-ROAD MOTORCYCLE FLEET HC+NO_x EMISSIONS[1]



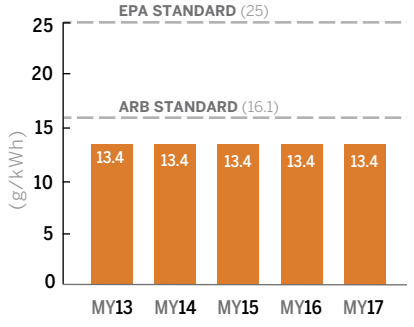
CLASS III MOTORCYCLE FLEET HC+NO_x EMISSIONS[1]



CHASSIS DYNO CERTIFIED ATV & UTV HC+NO_x EMISSIONS[1]



ENGINE DYNO CERTIFIED <225 CC ATV EMISSIONS (HC+NO_x)[1]



[1] Source: Honda internal test data.

2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Power Equipment Products

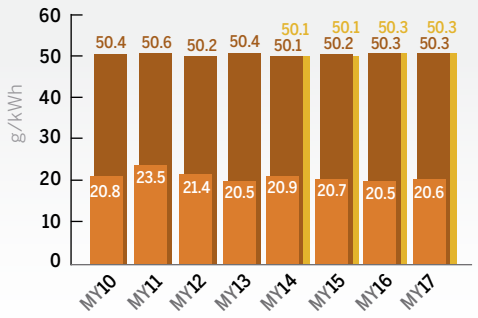
Criteria Air Pollutants for Honda Engines Sold in the U.S.

Honda achieves HC+NO_x emissions substantially below U.S. EPA standards for 0-80cc engines due to its use of advanced, 4-stroke engine technology with multi-position carburetors. Honda's 81-225cc engines are slightly above the stringent standard implemented in 2012 but are compliant through the use of credits. The last segment of Honda engines, 226-1000cc, is slightly below the more stringent 8 grams/kWh standard (implemented in 2010). With respect to carbon monoxide (CO) emissions, Honda power equipment products are significantly below EPA and CARB standards for all engine categories.

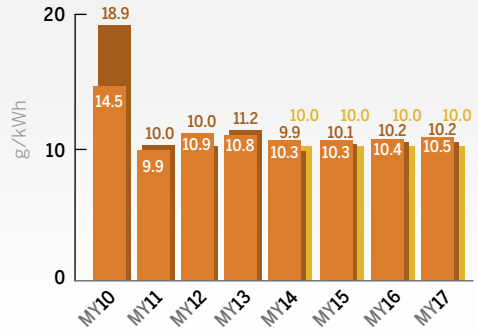
KEY
- Honda
- EPA Standard
- CARB Standard

FLEET AVERAGE: HC+NO_x EMISSIONS

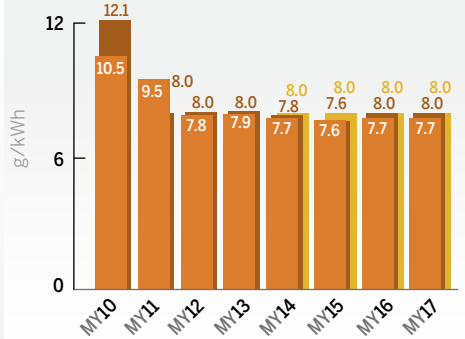
0-80cc



81-225cc

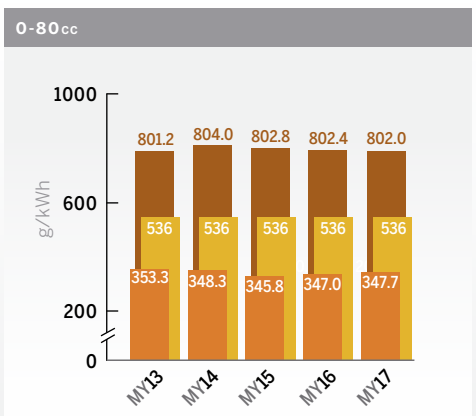


226-1000cc

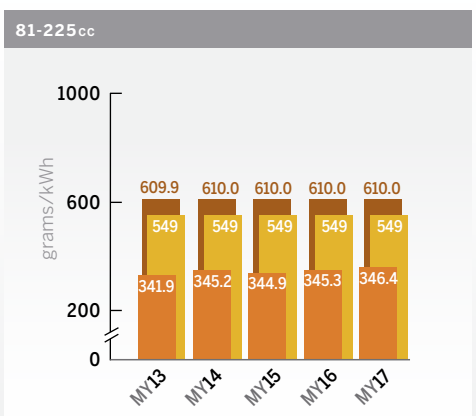


FLEET AVERAGE: CO EMISSIONS

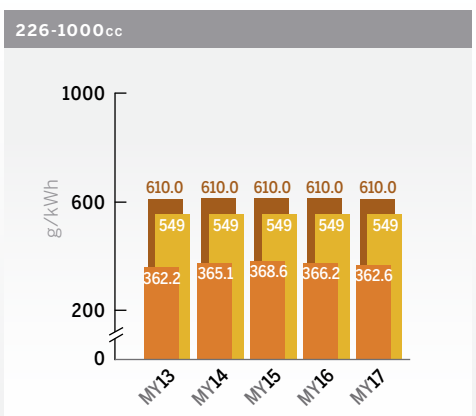
0-80cc



81-225cc



226-1000cc



HONDA

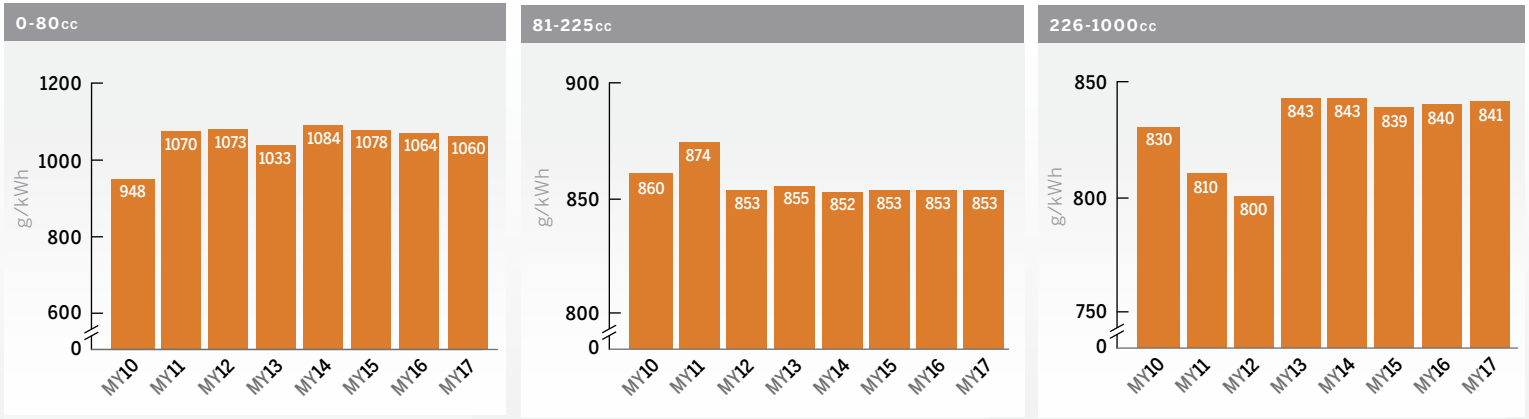
Power Equipment Products cont'd

2018 NORTH AMERICAN ENVIRONMENTAL REPORT

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

CO_2 Emissions for Honda Engines Sold in the U.S.

FLEET AVERAGE: CO_2 EMISSIONS

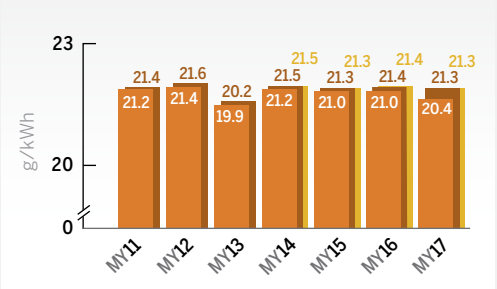


Criteria Air Pollutants for Marine Engines Sold in the U.S.

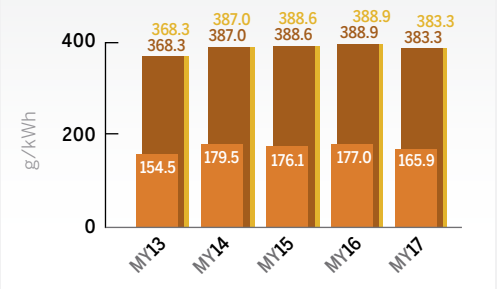
Honda achieves emissions below U.S. EPA standards for Marine Outboards due to its use of advanced, 4-stroke engine technology.

KEY
- Honda
- EPA Standard
- CARB Standard

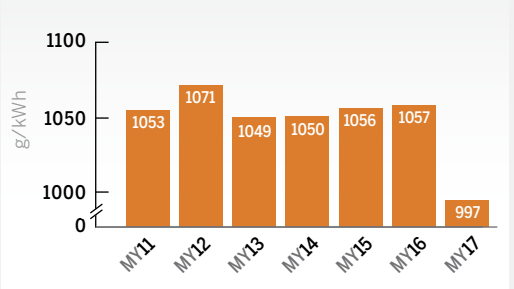
FLEET AVERAGE: HC+NOx EMISSIONS (MARINE)



FLEET AVERAGE: CO EMISSIONS (MARINE)



FLEET AVERAGE: CO_2 EMISSIONS (MARINE)



HONDA

Recycling of Warranty and Overstock Service Parts and Electronic Waste (E-Waste)

Honda's program for recycling overstock service parts utilizes the same procedures that are in place for regulated materials, such as universal or hazardous waste. Codes are assigned and used, filtering criteria to create lists that identify which parts will be destroyed and in what manner. Items that require special handling are segregated and delivered to qualified regulated materials recycling vendors. A similar process is utilized for recycling parts replaced under warranty. Parts that do not require further failure analysis are directed back to Honda and are then placed in their respective scrap collections. Due to transportation concerns, no regulated parts are returned by dealerships to Honda. American Honda's Service Parts Division maintains rigorous procedures for the disposal of electronic waste (e-waste). Service parts are evaluated at the time of procurement to determine whether they qualify as e-waste, as OSHA hazards or as "transportation dangerous" material regulated by the U.S. Department of Transportation. Nearly five percent of service parts have been coded for this special handling.

FY2018 Result: 53 million pounds of recyclable material from electronic waste, warranty parts and overstock service parts were diverted from landfills.

MATERIAL FROM E-WASTE, WARRANTY PARTS AND OVERSTOCK PARTS DIVERTED FROM LANDFILLS (LBS. x 1 MILLION)

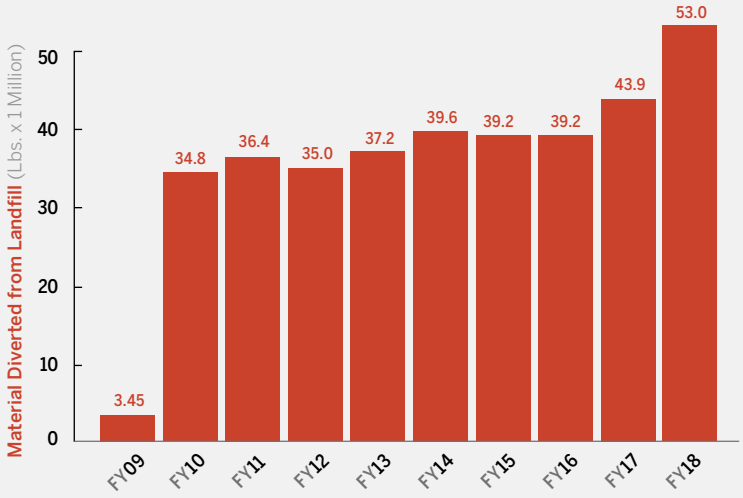


Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

North American Corporate Profile

Honda develops, manufactures, sells and services a diverse range of automobile, power equipment and powersports products in North America using domestic and globally sourced parts. This is Honda's single largest market for the production and sales of Honda and Acura automobiles. As such, Honda's North American region plays a critical role in the company's global effort to reduce its environmental impact, particularly in automobile production and in-use CO_2 emissions.

Key North American Locations

Capital Investment
More than $25 billion

Employment
Approximately 40,000 associates

Parts Purchases
More than $32 billion in parts and materials purchased annually from more than 736 North American original equipment suppliers

MAP LEGEND

- Major Manufacturing Facilities
- Research and Development Centers
- Parts Centers
- Sales and Marketing Headquarters

Table of Contents
CEO Letter
Executive Summary
Honda Environmental Vision
Management and Direction
Life Cycle Assessment
Supplemental Information

HONDA

Additional Information

	United States	Canada	Mexico
Additional information about Honda and Acura products can be found at:	 **www.honda.com**	 **www.honda.ca**	 **www.honda.mx**
Honda companies covered in this report:	American Honda Motor Co., Inc. American Honda Finance Corp. Honda North America, Inc. Honda of America Mfg., Inc. Honda Manufacturing of Alabama, LLC Honda Power Equipment Mfg., Inc. Honda of South Carolina Mfg., Inc. Honda Transmission Mfg. of America, Inc. Honda Manufacturing of Indiana, LLC Honda Engineering North America, Inc. Honda R&D Americas, Inc. Honda Trading America Corp. Honda Precision Parts of Georgia, LLC Honda Aircraft Company, Inc. Honda Aero, Inc.	Honda Canada, Inc. Honda of Canada Mfg., a division of Honda Canada, Inc. Honda R&D Americas, Inc. (Canada) Honda Canada Finance, Inc. Honda Trading Canada, Inc.	Honda de Mexico, S.A. de C.V.

www.corporate.honda.com