

# SUSTAINABILITY REPORT 2014

WE PRESERVE AND RENEW THE FREEDOM TO RIDE



## LETTER FROM LEADERSHIP

Harley-Davidson's purpose is to fulfill dreams of personal freedom. Timeless and lasting ideals like this demand responsible, forward-thinking commitments to society and our environment.

At Harley-Davidson, we preserve and renew the freedom to ride.

We share our customers' intense passion to preserve beautiful riding destinations around the world. We also share a passion to make a difference in our local communities by supporting social causes that improve skills and capabilities and ultimately enrich the fabric of society.

Our commitment to environmental and social responsibility is embodied in the company's sustainability strategy, which is focused on:

- Reducing Harley-Davidson's environmental impact across the complete value chain by:
  - o Investing in innovative new technologies, manufacturing processes and products that continue to lower our environmental impact - generating less waste, using less energy and creating fewer greenhouse gases.
  - o Engaging customers and dealers in causes that preserve and renew the great outdoors for future generations through activities such as our partnership with The Nature Conservancy through our Renew the Ride program.
  - o Partnering with suppliers to implement processes and materials that reduce waste and energy consumption.
- Strengthening and expanding the reach and passion for social causes by:
  - o Creating a positive social impact on communities that are home to Harley-Davidson's global operations through local projects promoting health, education and the environment.
  - o Expanding the reach and impact of customers, dealers and employees through personal volunteer engagement opportunities and charitable giving that makes a difference in people's lives and communities.

Sustainability is foundational to our long-term business strategy and is managed integrally with the other focus areas of growth, continuous improvement and leadership.

It's important to our stakeholders that we operate a successful, responsible business. Whether that means new innovation in manufacturing and in our products, investing in programs that improve the environment, or by enhancing the quality of life, we welcome this expectation and embrace the responsibility to preserve and renew the freedom to ride for generations to come.

Thank you for your interest in Harley-Davidson and our sustainability efforts.

Sincerely,



Matt Levatich  
President and CEO of Harley-Davidson, Inc.

# CONTENTS

SECTION

1

INTRODUCTION

Introduction  
Page 4  
Sustainability  
Vision  
Page 7

SECTION

2

REDUCING OUR  
ENVIRONMENTAL  
IMPACT

Reducing  
Waste to  
Landfill &  
Improving  
Recycling  
Page 9  
Reducing  
Energy  
Consumption  
Page 9  
Reducing  
Impact from  
Parts &  
Materials  
Page 10  
Improving Our  
Communities  
Page 10  
New Products  
Page 11

SECTION

3

IMPROVING OUR  
SOCIAL IMPACT

Strengthening  
Communities  
Home to  
Company  
Operations  
Page 13  
Expanding  
the Reach  
and Impact  
of Customers  
and Dealers  
Page 15

SECTION

4

ENVIRONMENTAL  
DATA

Energy &  
Greenhouse  
Gases  
Emissions  
Page 20  
Waste  
Generation &  
Recycling  
Page 21  
Other  
Environmental  
Data  
Page 21

SECTION

5

REGULATORY  
AND STRATEGIC  
ANALYSIS

U.S.  
Greenhouse  
Gas Emissions  
Regulations  
Page 23  
International  
Developments  
Page 24  
Commercial  
Risks and  
Challenges  
Page 24

# 1

## INTRODUCTION



**FOR HARLEY-DAVIDSON, SUSTAINABILITY MEANS  
THINKING DIFFERENTLY TO PRESERVE AND RENEW OUR COMPANY  
FOR LONG-TERM SUCCESS. WE ARE PASSIONATE ABOUT  
FUTURE GENERATIONS OF RIDERS SHARING THE HARLEY-DAVIDSON  
EXPERIENCE WE ENJOY. OUR PURPOSE IS CLEAR:  
WE FULFILL DREAMS OF PERSONAL FREEDOM.  
AND FROM THAT OUR SUSTAINABILITY VISION IS SIMPLE:  
WE PRESERVE AND RENEW THE FREEDOM TO RIDE.**



Sustainability has always been an important part of Harley-Davidson's strategy, because the environment and supporting our communities is directly linked to our customers' dreams of personal freedom and to the motorcycling experience.

Sustainability, like growth, leadership development and CI, is an integral part of what we do every day and is foundational to our long-term business strategy to become the most customer-led company on the planet.

<b>Driving Strategic Alignment</b>	<b>Harley-Davidson Fulfills Dreams of Personal Freedom</b>					
	<b>Growth</b>		<b>Continuous Improvement</b>		<b>Leadership</b>	
						
	<b>Sustainability</b>					
						

<b>Establishing Strategic Focus</b>	<b>We Preserve and Renew the Freedom to Ride</b>					
	<b>Environmental Sustainability Strategy</b>			<b>Social Sustainability Strategy</b>		
	Waste Reduction and Recycling	Energy Efficiency	Resource Conservation	Education	Health	Environment

Harley-Davidson is pursuing efforts to lower the environmental impact of H-D products and operations while promoting motorcycling and preserving the authentic H-D experience.

Harley-Davidson cares about people and our communities and has focused its social sustainability strategy in the areas of education, health and the environment. Harley-Davidson also aligns with customers' passion for the brand and the riding experience.

Our sustainability vision encourages all Harley-Davidson employees to understand and embrace the challenge and opportunity of sustainability. We want future generations to enjoy the riding experiences we enjoy, and delivering those experiences means preserving and renewing our brand for the future, just as we have done repeatedly for nearly 112 years.

Beyond minimizing the environmental impacts of our manufacturing operations, Harley-Davidson is building upon the comprehensive approach to sustainability developed in 2012 and implementing actions to support our areas of focus for environmental and social sustainability across our entire business. Our integrated approach to embedding sustainability across the company is led by our internal executive sustainability advisory committee with oversight from the Sustainability Committee of our Board of Directors.

**Harley-Davidson Sustainability Vision:**  
We preserve and renew the freedom to ride

# 2

## REDUCING OUR ENVIRONMENTAL IMPACT



**Harley-Davidson establishes annual targets for waste and energy at its manufacturing facilities, seeking continuous improvement year over year. Our other facilities have started establishing improvement targets as well, with an initial emphasis on improving recycling rates. Environmental data for waste, energy, water and other factors is reported in the Environmental Data section of this report.**

## REDUCING WASTE TO LANDFILL AND IMPROVING RECYCLING

For our US manufacturing operations, we have an aspirational goal of zero waste to landfill with a 2017 target of less than 5% waste to landfill and being virtually zero (less than 2%) by 2022. For 2014, we achieved a 7.9% waste to landfill rate, beating the 9% target and improving on the prior year's 9.4% performance. Improvement actions included better on-site separation and management of our wastes and new outlets for materials that previously were landfilled.

For example, our Pilgrim Road facility achieved a 3.9% waste to landfill. This was accomplished by sending two waste streams (filters and spill pads) that were periodically landfilled to a waste to energy facility and increasing our recycling of paper and mixed recycling items. The Kansas City facility separated and recycled nearly 11,000 tons more cardboard in 2014 than in 2013 – a 39% improvement over the previous year. In April 2014, the Kansas City facility also began baling plastic for recycling, enabling a significant amount of recyclable material to be diverted from the landfill to use as a fuel – over 27 tons more plastic was recycled in 2014 than 2013.

Like Kansas City, the York facility has increased its efforts to segregate more plastics for recycling. For example, recyclable cups were substituted for non-recyclable waxed coated cups – more than 16 tons of plastics were recycled that would not have been previously. The York facility also donated more than 55,000 pounds of obsolete items to four local non-profit organizations. Almost 400 items were reused or repurposed by the donor agencies rather than being recycled or landfilled. The York facility also began a composting program in 2014. Cafeteria waste is segregated and composted at a local facility that creates premium compost.

## REDUCING ENERGY CONSUMPTION

Harley-Davidson's US manufacturing plants joined the Department of Energy's Better Buildings Better Plants program in 2013, making the pledge to reduce our energy intensity 25% by 2025. Through 2014, we have achieved just over a 5% reduction. To make continued progress against this goal, we are:

- Implementing standardized shut down/start up procedures across all of our plants so operators know how and when to turn equipment off.
- Incorporating consideration of energy consumption into our process for acquiring capital equipment.
- Aggressively finding and fixing compressed air leaks and optimizing the operation of our air compressors.

Other facility-specific accomplishments include:

- Replacing shop-floor lights at our Pilgrim Road facility with LED lighting in late 2014. This change will reduce energy consumption and maintenance costs.
- The Pilgrim Road facility modified the on/off cycle for its two chiller pumps so that rather than both pumps operating regardless of system need, now one chiller pump is on and the second cycles on only when needed.
- Upgrading to energy efficient variable speed rotary screw air compressors at our Kansas City facility.
- A multi-year program to upgrade chillers at the York facility is anticipated to result in the plant being able to run on one instead of two chillers by the end of 2015.
- The York facility building management system was upgraded to include monitoring capability for all HVAC, boilers and paint ovens in real time.



## REDUCING IMPACT FROM PARTS & MATERIALS

An exciting project that will have beneficial impact on energy and waste is an effort to substitute the forgings used to make some of our gear parts with “nearer shape” forgings. The nearer shape forging allows the supplier to use smaller steel bar or rod stock to make the forging. (See example in picture – 3 parts going from 3.5” to 1.75” diameter bar stock.) The result is that less machining on the forging is required to produce the final part at our Pilgrim Road facility. This will result in less metal scrap and energy use.



## IMPROVING OUR COMMUNITIES

In 2014 the Pilgrim Road facility adopted a section of highway near the plant. Members of the plant leadership team picked up trash in summer and fall, and will do so again in 2015.

Employees from our York facility volunteered with The Nature Conservancy to remove Japanese Barberry, an invasive plant impacting forest growth, from a section of the Mount Holly Marsh Preserve in Pennsylvania.

## NEW PRODUCTS

Preserving the riding environment is important to us. That's why we're developing products that address environmental issues while providing the kind of visceral, no-excuses riding experience our customers expect.

In 2014, the new Street 500 motorcycle was launched with the best fuel economy of any motorcycle within our product offerings - delivering combined city / highway fuel economy of 64 miles per gallon. The Street 750 also provides 50 miles per gallon for combined city/highway.<sup>1</sup>

In June 2014, we unveiled our first electric motorcycle - Project LiveWire™. Through the Project LiveWire Experience tour, more than 15,000 customers have provided feedback on this ground-breaking new motorcycle. This included more than 6,800 who took demo rides, as part of a 30-stop tour across the United States and at a special consumer event

for Latin American customers in Miami. While not for sale, Project LiveWire was designed to capture riders' expectations of an electric Harley-Davidson® motorcycle.

In 2015, the Project LiveWire Experience will travel to cities in the Europe, Asia, Canada and the United States, offering select consumers the opportunity to ride and provide feedback on the bike. Longer term decisions for an electric Harley-Davidson® motorcycle will be influenced by that input.

We know there is a strong future for our traditional products. An electric Harley-Davidson® motorcycle is one of the ways we are exploring how to grow the diverse family of Harley-Davidson riders while helping preserve and renew the freedom to ride in our long term approach to sustainability.

Learn more about Project LiveWire at [projectlivewire.harley-davidson.com](http://projectlivewire.harley-davidson.com)



*[1. Estimated from fuel economy tests on a sample motorcycle from the corresponding family conducted by Harley-Davidson under ideal laboratory conditions. Not all motorcycle models undergo fuel economy testing. Fuel economy and mileage may vary among motorcycle models within a family. Your mileage may vary depending on your personal riding habits, weather conditions, trip length, vehicle condition and vehicle configuration and other conditions. Break-in mileage may vary]*

3

**IMPROVING OUR  
SOCIAL IMPACT**



To achieve our social sustainability goals, we are focused on creating a positive social impact on communities globally that are home to Harley-Davidson operations. We're also expanding the reach and impact of customers and dealers on social issues essential to the business.

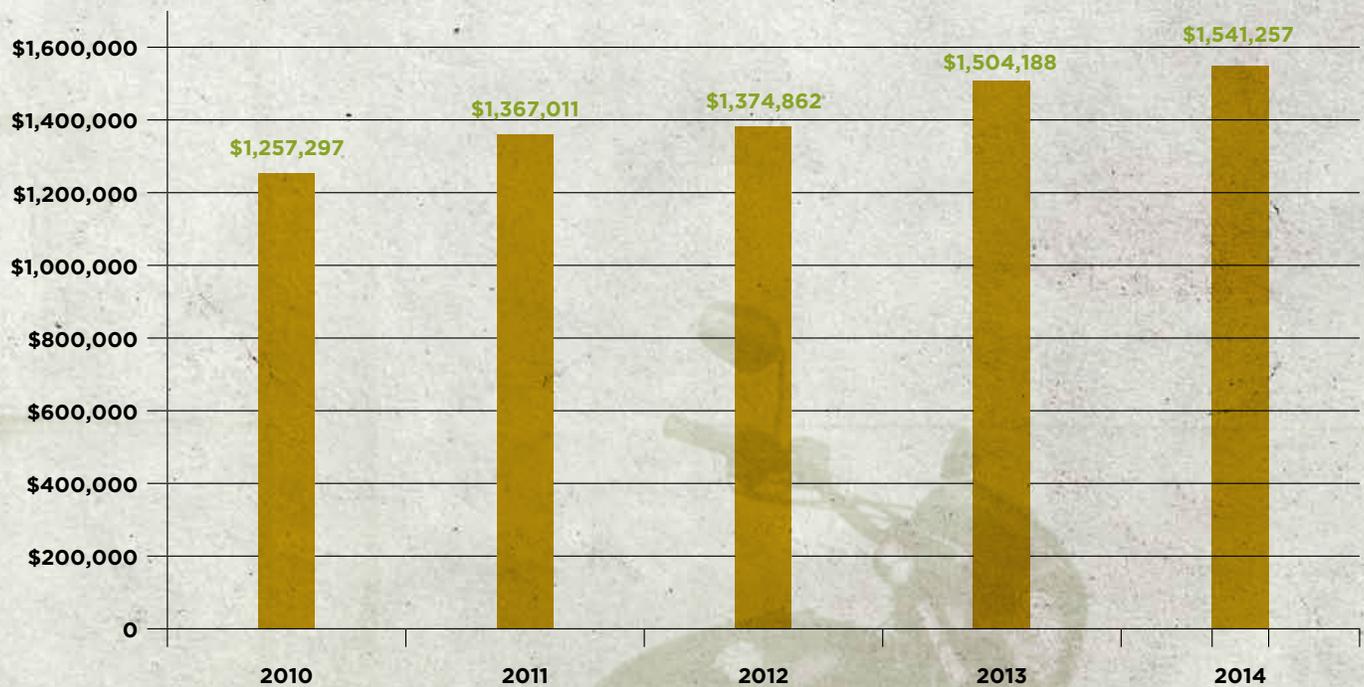
## STRENGTHENING COMMUNITIES HOME TO COMPANY OPERATIONS

In 2014, The Harley-Davidson Foundation contributed more than \$4 million to support local communities aligned with our focus areas of health, education, and environment.

For example, The Harley-Davidson Foundation and Harley-Davidson employees contributed more than \$1.541 million to United Way. United Way is a global organization that works to improve lives by mobilizing the caring power of communities, focusing on improving education, helping people achieve financial stability, and promoting healthy lives.

### THE HARLEY-DAVIDSON FOUNDATION AND HARLEY-DAVIDSON EMPLOYEE UNITED WAY CONTRIBUTIONS

(2010-2014)



The Harley-Davidson Foundation's support of the Milwaukee-area Hunger Task Force is a great example of our commitment to our local communities. In 2013 Harley-Davidson formed a new partnership with the Hunger Task Force that includes a \$2.475 million donation from The Harley-Davidson Foundation over the next three years to fund the continued operation of the Hunger Task Force Farm in Franklin, Wisc. The farm grows a long list of vegetables and fruits on 139 acres of farmland, six acres of orchards and 20 acres of tree nursery. The food will be delivered to food pantries, soup kitchens and senior centers in the Milwaukee area. The Hunger Task force has set a goal to produce 975,000 pounds of fruits and vegetables in 2015, an increase of 22% from 800,000 pounds in 2013, by leveraging Harley-Davidson's investments in the farm.



When The Harley-Davidson Foundation invested in The Farm, it did so with everything it had. This year, Harley-Davidson employees worked two weeks straight on a Harvest for the Hungry, and set a one day picking record of 52,000 pounds. In fact, 10% of The Farm's volunteer force in 2014 was made up of Harley-Davidson employees! Volunteerism peaked with groups from local organizations and businesses planting, tending, and ultimately harvesting food that made a difference in the lives of many.



## EXPANDING THE REACH AND IMPACT OF CUSTOMERS AND DEALERS

Harley-Davidson's base of customers, dealers and fans generate tremendous support for social issues core to the business. The Company has key partnership programs to drive significant benefits for health, education and the environment.



### Health - Muscular Dystrophy Association (MDA) Results

One of Harley-Davidson's long-standing partnerships is with the Muscular Dystrophy Association (MDA), the world's leading nonprofit health agency dedicated to finding treatments and cures for muscular dystrophy, amyotrophic lateral sclerosis (ALS) and other neuromuscular diseases. Since 1980, Harley-Davidson's family of dealers, customers, employees, suppliers and H.O.G. chapters have raised more than \$92 million for kids and adults living with muscular dystrophy and related muscle diseases. The top Harley-Davidson event for 2014 was the annual Milwaukee Black N Blue Ball, which raised just under \$1.80 million. The second most successful 2014 Harley-Davidson event was the Eastern Harley-Davidson Dealer Association Ride for Life, which raised about \$900,000.



### Health - Operation Personal Freedom

About a third of Harley-Davidson motorcycle riders in the U.S. are veterans, and we are proud to support them in their quest for strength, freedom and independence.

As part of the company's nearly 100 years of support to the men and women who defend our country and our freedom, we announced a new alliance with Wounded Warrior Project® that focuses on raising awareness of post-traumatic stress disorder. This new program, dubbed Operation Personal Freedom, includes a new Harley-Davidson MotorClothes collection with 10 percent of the sales supporting WWP's efforts and various dealer events across the country focused on welcoming and celebrating our military heroes.

Operation Personal Freedom replaces the great work done in conjunction with DAV. Together, Harley-Davidson and the DAV helped thousands of veterans get the benefits for which they were entitled.



### Health - Pink Label

Inspired by the countless riders and passengers we have met on the road who have been impacted by breast cancer, Harley-Davidson developed the Pink Label collection of riding gear and apparel. Year-round, 3% of each Pink Label item retailed is donated to breast cancer support organizations. In 2014, \$360,000 was donated to our three partners: the National Breast Cancer Foundation, Young Survival Coalition and ABCD: After Breast Cancer Diagnosis. Each of these not-for-profit organizations offers national reach, a solid reputation and a distinct approach to providing empowerment and support to those facing breast cancer, including online tools, helplines and face-to-face mentoring. Since the inception of the Pink Label program, Harley-Davidson Motor Company and its dealers have donated more than \$1.3 million to these organizations committed to providing empowerment and support to those facing and recovering from breast cancer.

**Environment – Renew the Ride™**

Renew the Ride™ launched in 2013 and provides a platform for dealers, customers and other stakeholders to support positive contributions to the environment through activities such as tree planting and donations to The Nature Conservancy’s Plant a Billion Trees program. Harley-Davidson has announced a goal of planting 50 million trees worldwide by 2025. This goal will be met by rallying the Harley-Davidson community to protect the great outdoors, because the environment is key to our sport of motorcycling.

As part of this effort in 2014, The Harley-Davidson Foundation supported the planting of 130,000 trees in the South Quay Sandhills Natural Area Preserve in Suffolk, Virginia. The first 1,000 of those trees were planted by about 60 Harley-Davidson employees, customers and dealer personnel. In total, donations received through the end of 2014, have planted 244,463\* trees in the U.S. and Brazil through the collaboration with The Nature Conservancy.



In 2015, Renew the Ride will roll out to Harley-Davidson® dealers and riders outside of the U.S. for global activations, including tree planting events and fundraiser rides.

For more information, please visit [www.harley-davidson.com/renewtheride](http://www.harley-davidson.com/renewtheride).

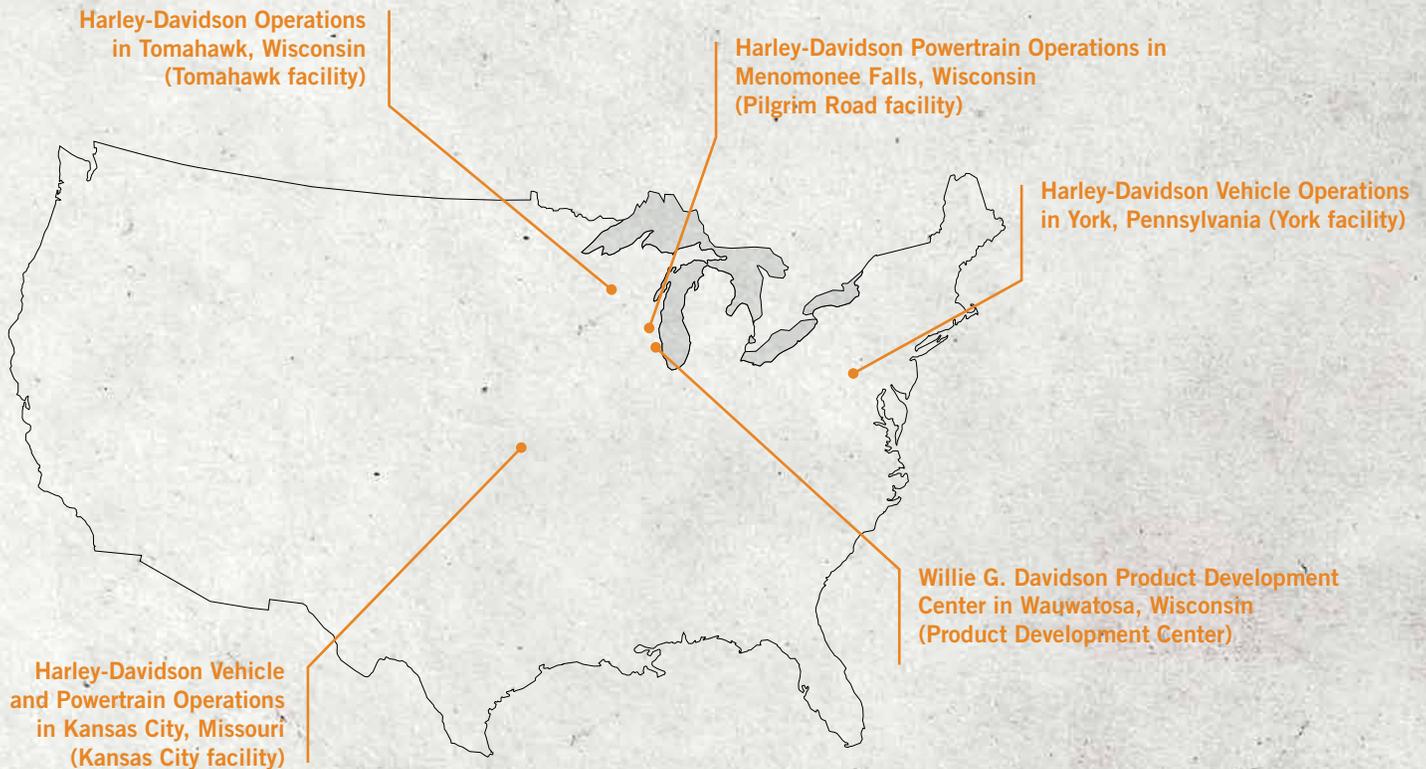
*\*The remaining 129,000 of the trees at South Quay were planted in March 2015 as a result of the 2014 Foundation funding.*

# 4

## ENVIRONMENTAL DATA



Harley-Davidson Motor Company operates four U.S. manufacturing facilities and one research and development facility. Environmental data from these facilities are included in all of the metrics reported here. With this report, we are providing environmental data from 2010-2014 on energy consumption, Scope 1 and 2 GHG emissions, waste generation and recycling, water consumption and environmental compliance (fines and penalties). These facilities account for the majority of our operational environmental impacts and environmental data for these facilities have been tracked since at least 2008.



These facilities manufacture and assemble motorcycle engines, transmissions and components and perform final vehicle assembly. They range in size from approximately 100,000 square feet at the Tomahawk facility to almost 1,000,000 square feet at the Pilgrim Road facility. The U.S. manufacturing and R&D facilities identified above were included in our original emissions calculations, and that scope has been maintained for all of the 2010-2014 data

reported here. While not included at this time in our reported data, Harley-Davidson also operates two lower volume assembly facilities in Brazil and India, and a wheel manufacturing subsidiary plant in Australia. Also not included are the Harley-Davidson, Inc. corporate headquarters in Milwaukee, as well as the Harley-Davidson Financial Services facilities and all sales offices and international subsidiary offices, the majority of which are leased.<sup>1</sup>

<sup>1</sup> Harley-Davidson previously owned facilities associated with Buell Motorcycle Company. These operations were closed in late December 2009 and are included in the GHG data through 2009. International facilities are not yet included in the data. Scope 2 emissions factors for the 2012 and 2013 calculations are from the 8th ed., Version 1.0 Subregion File (Year 2009 data), and prior to that the eGRID2010 was utilized for 2010-2013, Scope 1 emissions factors for CO<sub>2</sub>, CH<sub>4</sub> and N<sub>2</sub>O from combustion of gasoline, diesel and natural gas were obtained from the default list of values in Table 1 of the WRI GHG Protocol, Version 3.0 (Dec. 2007). \*For 2014, factors are taken from the eGrid 9th ed. (2014) Version 1.0 Subregion File (Year 2010 data) and 40 CFR pt 98 Tables A-1, C-1 and C-2.

## ENERGY & GREENHOUSE GASES EMISSIONS

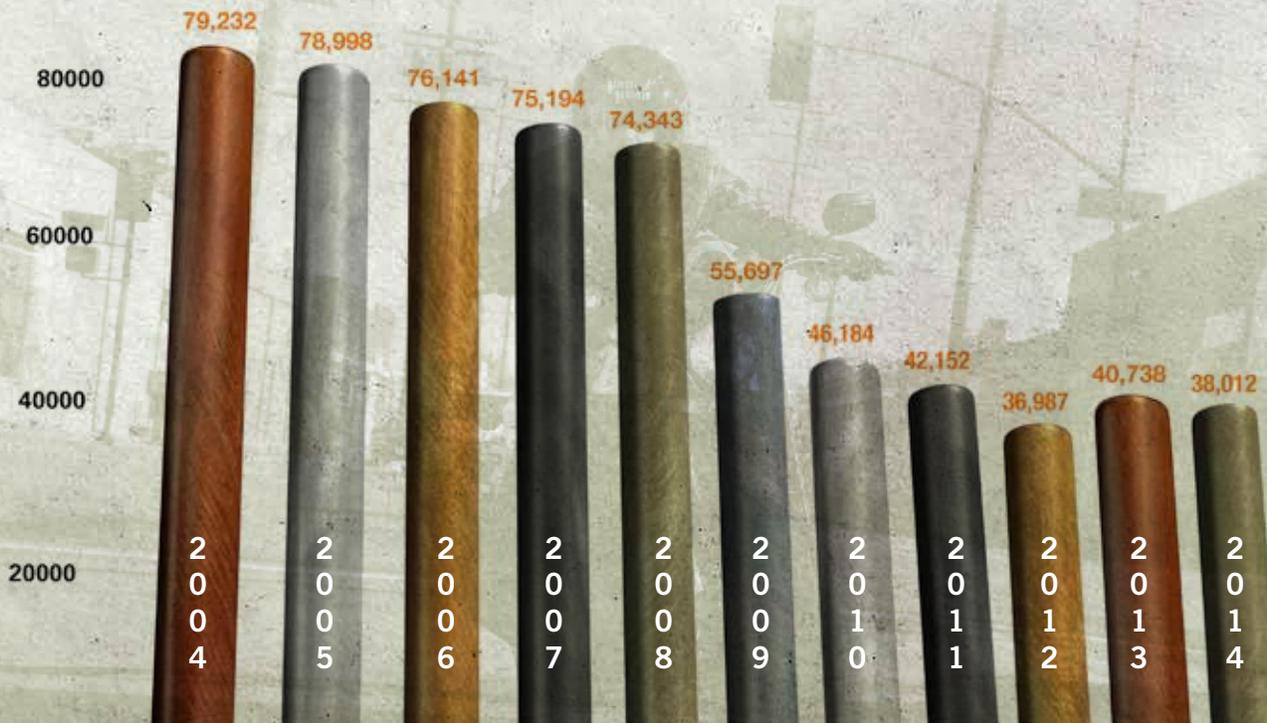
The majority of greenhouse gas (GHG) emissions associated with these Harley-Davidson facilities are related to energy use (natural gas and electricity). In this section, we report the energy consumed (in GJ) by the U.S. facilities identified above and the resulting direct (Scope 1) and indirect (Scope 2) GHG emissions, as further described below. Indirect value chain emissions from transportation, purchased materials, etc. (Scope 3) are not currently evaluated. GHG estimates for emissions from company and consumer use and operation of individual motorcycles are also not included in the information reported here.

Within the organizational and operational boundaries described above, Harley-Davidson reports information on emissions of three GHGs: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), all quantified as CO<sub>2</sub> equivalents (CO<sub>2</sub>e). (Emissions associated with refrigerants (fugitive) and propane (e.g., forklifts, testing backup system) are not calculated; emissions associated with gasoline combustion for final vehicle testing at our vehicle assembly plants are included.)

The primary GHG in our reported Scope 1 data are CO<sub>2</sub> emissions from combustion of natural gas, gasoline and fuel oil. As shown in Figure 1, Harley-Davidson Motor Company decreased its annual GHG emissions from 79,232 metric tons in 2004 to 38,012 in 2014.

### HARLEY-DAVIDSON MOTOR COMPANY SCOPE 1 GREENHOUSE GAS EMISSIONS

CO<sub>2</sub>e



## ENERGY & GREENHOUSE GASES EMISSIONS

### Energy Consumption 2010-2014

(GJ)	2010	2011	2012	2013	2014
Electricity	738,830	702,906	656,285	660,528	690,118
Natural Gas	818,625	746,878	642,258	718,702	748,970
Fuels	8,154	6,853	7,192	5,916	4,769
<b>Total</b>	<b>1,565,609</b>	<b>1,456,637</b>	<b>1,305,735</b>	<b>1,385,146</b>	<b>1,443,858</b>

### Direct (Scope 1) & Indirect (Scope 2) GHG Emissions 2010-2014

(tCO <sub>2</sub> e)	2010	2011	2012	2013	2014
Scope 1	46,184	42,152	36,987	40,738	38,012
Scope 2	127,444	124,318	120,547	120,591	128,926
<b>Total</b>	<b>173,628</b>	<b>166,470</b>	<b>157,534</b>	<b>161,329</b>	<b>166,938</b>

## WASTE GENERATION & RECYCLING

(tonnes)	2010	2011	2012	2013	2014
Total Waste	16,859	14,628	12,373	14,043	14,584
Recycled	13,586	12,148	10,563	12,091	12,494
<b>% recycled</b>	<b>81</b>	<b>83</b>	<b>85</b>	<b>86</b>	<b>86</b>
<b>% to landfill</b>	<b>—</b>	<b>—</b>	<b>13</b>	<b>9.4</b>	<b>7.9</b>

## OTHER ENVIRONMENTAL DATA

### Water Consumption 2010-2014

(m <sup>3</sup> )	2010	2011	2012	2013	2014
Water	482,056	367,193	349,610	387,946	294,599

### Environmental Fines & Penalties Assessed 2010-2014

(US\$)	2010	2011	2012	2013	2014
Fines/Penalties	0	0	0	0	0

# 5

## REGULATORY AND STRATEGIC ANALYSIS



Regulation designed to address climate change, particularly GHGs like CO<sub>2</sub>, is expected to increase significantly in the next five to ten years. While regulations at the state, federal and international levels remain in flux, proposed and final regulations have the potential to affect the motorcycle industry. Notably, in December 2011 at the United Nations sponsored meeting in Durban, South Africa, almost 200 countries agreed to draft a new global emissions treaty by the end of 2015. The three largest emitters of greenhouse gases – the United States, China and India – all agreed to be legally bound to reduce their emissions. Several regulatory bodies around the world have established fuel economy and CO<sub>2</sub> emissions standards for cars. A few have extended this to motorcycles or expressed interest in doing so. For example, the California Air Resources Board (CARB) has expressed a desire to regulate GHGs for motorcycles, and this could occur in conjunction with CARB implementing new standards around 2020.

This section describes pertinent GHG regulations in the U.S., as well as international initiatives in the European Union and Japan, due to their leading impact on regulatory trends.

## U.S. GREENHOUSE GAS EMISSIONS REGULATIONS

No federal legislation limiting greenhouse gas emissions in the motorcycle industry has yet been enacted in the U.S. Past proposed bills have contained vehicle performance standards applicable to motorcycles, along with a cap-and-trade system for GHG emissions. The U.S. EPA has taken direct action to regulate GHG emissions, specifically issuing rules to require permitting of GHG emissions and to restrict GHG emission from new light-duty vehicles and new power plants (motorcycles are not included within these rules).

### U.S. EPA Reporting Rules

In October 2009, the U.S. EPA issued a reporting rule requiring certain sources begin tracking emissions for six GHG pollutants, including carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), and nitrous oxide (N<sub>2</sub>O), beginning Jan. 1, 2011. Currently, no Harley-Davidson facilities meet the requirements for reporting. Similarly no state regulations apply to Harley-Davidson facilities currently.

Engine emissions reporting was required for CO<sub>2</sub> beginning with model year 2011, with CH<sub>4</sub> added for model year 2012 and N<sub>2</sub>O for model year 2013. This reporting is folded into the existing engine emissions certification process under the Clean Air Act (CAA).

### U.S. EPA and NHTSA Tailpipe Rule

The U.S. EPA and the National Highway Traffic Safety Administration have issued a light-duty vehicle rule (the “Tailpipe Rule”) that, while not applicable to motorcycles, was the first federal rulemaking regulating GHG emissions. In October 2012 the second phase of the Tailpipe Rule was issued with 2025 targets for light duty vehicles of 150g/km CO<sub>2</sub> and 50mpg. The model underlying this rulemaking is not readily applicable to motorcycles; however, U.S. EPA data indicate that the contribution of motorcycles to CO<sub>2</sub> from all mobile sources is on the order of 0.1%.

## INTERNATIONAL DEVELOPMENTS

Harley-Davidson motorcycles are sold worldwide and international regulations impact our business. The European Union and some Asia/Pacific and Latin American countries have promulgated and are in the process of implementing CO<sub>2</sub> efficiency and fuel consumption labeling regulations. Also, CO<sub>2</sub> outputs for motor vehicles in grams per kilometer (g/km) are linked to taxation and registration requirements in Spain.

In 2012, the European Parliament and the Council of the European Union reached an agreement on the approval of new regulations establishing GHG labeling (CO<sub>2</sub> emissions and fuel consumption) and more stringent emissions targets for motorcycles. Under the new regulations, certain emissions limits will become applicable in 2016 for new type approvals and 2017 for all vehicles, and other limitations will become applicable by 2020 for all new type approvals and 2021 for all vehicles. Several other markets, including China, India, and other Asian and Latin American markets, are now actively considering following or adapting to the direction established by the EU. Taiwan remains unique and recently updated its fuel economy regulations for motorcycles for 2015-2017. India has initiated preliminary discussions on fuel economy.

## COMMERCIAL RISKS AND CHALLENGES

Because the implementation of a specific CO<sub>2</sub> regulation could occur in combination with additional reductions in currently regulated tailpipe emissions (hydrocarbons and NOx for example), rigorous technical challenges emerge for vehicle manufacturers. Therefore, additional development and research are required to find ways to simultaneously improve efficiency and reduce CO<sub>2</sub> and other emissions. This may require motorcycle manufacturers to develop and adapt the types of advanced technologies employed in the products, requiring new and innovative motorcycle designs.

Concerns over climate change are expected to ultimately lead to further regulation of lower tailpipe emission limits for motorcycles. In addition, energy security and availability and its related costs affect all aspects of Harley-Davidson's manufacturing operations, including our supply chain. This may have an adverse effect on the cost to manufacture motorcycles. We have several facilities with rich histories (some more than 50 years old) in Wisconsin and Pennsylvania that are located in cold weather areas. We have implemented numerous improvements at these facilities to reduce energy use and associated operating costs.

Physical risk to our business operations as identified by the Intergovernmental Panel on Climate Change and other expert bodies include scenarios such as sea level rise, extreme weather conditions and resource shortages. Extreme weather may disrupt the production and supply of natural gas, a fuel necessary for the manufacture of our motorcycles. Supply disruptions raise market rates and jeopardize the continuity of our manufacturing production. Harley-Davidson has taken numerous steps to minimize the risk of production interruptions.

---

Harley-Davidson, Inc. is the parent company of Harley-Davidson Motor Company and Harley-Davidson Financial Services. Harley-Davidson Motor Company produces heavyweight, custom, cruiser and touring motorcycles and offers a complete line of Harley-Davidson motorcycle parts, accessories, riding gear and apparel, and general merchandise. Harley-Davidson Financial Services provides wholesale and retail financing, insurance, extended service and other protection plans and credit card programs to Harley-Davidson dealers and riders in the U.S., Canada and other select international markets.



©2015 HARLEY-DAVIDSON. All Rights Reserved.

Harley-Davidson, Harley, HARLEY-DAVIDSON, the Bar & Shield logo and others are among the trademarks of HARLEY-DAVIDSON U.S.A., LLC.