



WHAT WE'VE BUILT. WHAT WE'RE SOLVING.



CHAIRMAN'S MESSAGE 2

APPROACH 6

Vision, Mission, Strategy & Principles 7

Stakeholder Engagement..... 8

Affiliations & Investments 9

About this Report & Legal Statements 10

FOCUS AREAS 11

Our People 13

Energy & Climate 18

Operational Impact..... 26

Product Stewardship 35

An Integrated Value Chain..... 46

Governance & Ethics 51

Community Impact..... 56

GOALS & PROGRESS..... 64

Operations..... 65

Product Stewardship 69

Performance At-A-Glance 71



CHAIRMAN'S MESSAGE

What We've Built. What We're Solving.

DOUG OBERHELMAN
Chairman & CEO, Caterpillar Inc.

Since our first days as a company, Caterpillar has designed and built the world's most powerful, innovative and durable machines and engines. Our customers put them to work on projects that help the world grow and develop, supporting sustainable progress and improved living standards for people everywhere.

Sustainability doesn't ever go out of style or focus at Caterpillar, even when we face difficult business conditions. We know it's essential for economic growth – and growth is essential to our business. Whether we are in an up or a down cycle, we seize the opportunity to develop even more efficient solutions for our customers and within our operations.

Although we can point to hundreds of examples in our 90-year history and in the global challenges we're helping to solve today, I will highlight only a few of them here.

What We've Built

Sustainable progress requires energy, but even today, 1.1 billion people in the world lack access to the benefits of reliable electricity. As a global energy consumer and major manufacturer of energy conversion and power-generation products, Caterpillar is uniquely positioned to leverage innovation to meet the world's growing energy needs.

Our products bring traditional, renewable and alternative energy options to urban, rural and remote communities. We have hundreds of distributed power generation systems operating all over the world. These systems improve energy access while emitting fewer greenhouse gases (GHG) than traditional power grid systems. We provide combined heat and power systems and combined-cycle power systems that can double the efficiency of power generation when compared with conventional power grids.

Our energy solutions also include hydropower, methane from landfills, microgrid solutions and backup generators to supplement wind power. Cat® products have helped construct hydropower dams in every region of the world, including the Hoover Dam in the United States, the Bhakra Dam in India, the Yacyreta Dam in Paraguay and Argentina and the Owens Falls Dam in Uganda – just to name a few.

In the world's mining industry, Cat® machines dig, haul and transport the copper, iron ore, gold and other commodities necessary to construct the things that keep communities connected – from bridges to railways to smartphones. Our products and services also help our mining customers to be more efficient and safer on their jobsite, reducing fuel consumption and identifying operator fatigue.

Cat machines create new and repair existing infrastructure, which improves access to energy, clean water, schools and hospitals. Infrastructure also supports trade and makes it possible for a worker to get to their job. In the United States, Cat products have helped build more than 77,000 miles of highways since 1944. Our machines helped widen the Panama Canal in the 1960s and are at work widening the Canal again now. Cat machines helped construct the German Autobahn, the Kansai International Airport in Osaka, Japan, and the BR 101, the major coastal highway that runs the length of Brazil and is part of the Pan-American Highway.

Watch this video for more on sustainability at Caterpillar from DOUG OBERHELMAN





CHAIRMAN'S SUSTAINABILITY AWARDS

The Chairman's Sustainability Awards recognize team projects that demonstrate our mission of sustainable progress and assist us in achieving our 2020 Sustainability Goals. Honors are bestowed in two areas. The Product/Service/Solution Sustainability Award recognizes the project or solution that best delivers excellence in the three dimensions of sustainability – economic growth, environmental stewardship and social responsibility – for our business and our customers. The Process Sustainability Award recognizes operational or business process excellence – including collaboration with dealers, customers and suppliers – that best demonstrates pursuit of sustainability. In 2015, its fifth year, the awards program attracted 45 nominations from 16 different divisions in more than a dozen countries.

In 2015, an Advanced Components & Systems Division team was awarded the Product/Service/Solution Sustainability Award for its 'TripleThreat: Increasing Customer and Caterpillar Value through Sustainable Solutions' project. A team from the Wear, Components & Aftermarket Distribution Division was awarded the Process Sustainability Award for its project that not only delivers financial savings and contributes to environmental benefits, but also builds engagement and awareness in sustainability and social responsibility throughout the facility.

We have also built a valuable business, and contributed to resource conservation, since we began remanufacturing engines in 1973. For more than 40 years, we have been a big part of what is now called the Circular Economy. Through remanufacturing we return our products to same-as-when-new condition; this reduces the use of additional raw materials, ultimately enabling us to conserve precious natural resources.

These are examples of the sustainable products and solutions we've brought to our customers. We also have many examples of Caterpillar's sustainability commitment to our people.

From 2014 to 2015, we continued to improve our trend toward world-class performance in safety with a 17 percent reduction in Recordable Injury Frequency (RIF) and a 13 percent reduction in Lost-Time Case Frequency Rate (LTCFR). A safe work environment is our first priority and over the last 15 years, we have improved RIF by about 90 percent. That is fantastic progress! But we know even one injury is one too many – that's why our goal is zero.

Caterpillar's Diversity & Inclusion (D&I) progress has earned several accolades, and our Employee Resource Groups help drive innovation and an environment where every employee feels heard and valued. We're committed to constant learning and improvement and confident D&I strengthens our team.

In addition, Caterpillar employees contribute their time and resources to promote the health and welfare of communities where we work and live. Since 1952, the Caterpillar Foundation has invested hundreds of millions of dollars to transform lives through education, environmental stewardship and emergency relief. Today, the Foundation invests in programs like microfinance and access to clean water and better sanitation, always focused on their mission: alleviating the root causes of poverty.

What We're Solving

Of course, even with this incredible history, our work isn't done. We're still working to solve challenges facing the world's people. We believe it is possible to promote progress and balance economic growth with society's needs and with less impact on the environment. Finding that balance is fundamental to our sustainability commitment.

In 2015, we joined an effort to focus on restoring natural infrastructure – the forests, prairies, farmlands, wetlands and coastal landscapes that play a vital role in supporting sustainable global development. Natural infrastructure improves resilience to natural disasters like storms and floods, improves water quality and removes carbon from the atmosphere to return it to the soil, where it helps plants grow. Cat® products have supported coal mine restoration projects and restored portions of the Florida Everglades.

We were also honored to receive the "Vision for America" Award from Keep America Beautiful – a prestigious recognition for our corporate commitment to sustainability and significant progress toward achieving aggressive sustainability goals.

In 2015, Caterpillar entered a strategic alliance with solar industry leader First Solar to develop and distribute Cat-branded photovoltaic modules for incorporation into microgrid systems that can be utilized anywhere from remote villages to mining operations. This innovative technology will help us provide power to remote places where, before now, it's been either unavailable or unreliable.

We're always innovating and improving to build products that are both valuable to our customers and more sustainable. Examples this year include an upgrade to the Cat® D6K2 grading tractor that improved performance while also reducing fuel consumption, and improvements to the transmission systems of our new generation of medium wheel loaders that result in large fuel savings and less jobsite GHG emissions.

We're applying advanced analytics and digital-driven technologies – like Cat® Connect and MineStar™ – to improve worksite efficiency. This means less fuel used, increased productivity and a safer work environment. We also offer our customers Job Site Solutions, a true collaborative effort focused on improving job site efficiency. Our solutions business model is designed to go “beyond the iron” to increase asset utilization, which is so important for our customers' sustainability goals.

The intersection of sustainability and innovation includes improving our internal operations. New process innovations – like using combined heat and power for alternative energy – are reducing the environmental impact of our manufacturing facilities. For example, as of 2015, Caterpillar has reduced GHG emissions intensity from our facilities by 32 percent compared with our 2006 base year. From 2014 to 2015, our absolute GHG emissions have declined 7 percent. We're constantly pushing to reduce water and resource usage and minimize waste in every facility. Our achievements here are due to the ingenuity and dedication of the skilled men and women who are on the front lines manufacturing our products.

I also believe one of the primary reasons Caterpillar has thrived for 90 years is because we are a company built on values, including sustainability, the value highlighted in this report.

I'm incredibly proud of what we've built and what we're solving. Neither our accomplishments nor our goals are small or inconsequential. Given that we are Caterpillar, that shouldn't surprise anyone.



DOUG OBERHELMAN
Chairman and CEO

VISION FOR AMERICA AWARD RECIPIENT

In November 2015, Caterpillar Inc. was recognized by Keep America Beautiful as the recipient of the national nonprofit's prestigious “Vision for America” Award. This national award recognizes a U.S. company's accomplishments in leading sustainability initiatives in communities across the country. Caterpillar was recognized for our corporate commitment to sustainability and our significant progress toward aggressive sustainability goals.

WHAT WE'VE BUILT. WHAT WE'RE SOLVING.

For 90 years, we've been providing equipment and solutions to help make sustainable progress possible.

INFRASTRUCTURE

Our equipment helps construct the infrastructure our world needs: roads, bridges, dams, railways, hospitals and schools.

NATURAL INFRASTRUCTURE

Cat® equipment helps restore degraded forests, prairies, agricultural lands, estuaries, coastal landscapes and wetlands.

ALTERNATIVE/RENEWABLE ENERGY

From landfill methane to greenhouse exhaust, Cat® generators help convert gas by-products into renewable energy.

ECONOMIC DEVELOPMENT

Our products and solutions help bring power, water and roads – the essentials of a modern economy – to communities around the world.

GLOBAL TRADE AND COMMERCE

From engines that power cargo ships to pavers that construct highways, we help connect the world to facilitate global commerce.

ENERGY EFFICIENCY

We continue to develop new technologies that increase fuel economy and decrease emissions in the operation of our equipment.

ENERGY ACCESS

With distributed generation solutions utilizing diesel and natural gas engines, as well as alternative fuels, we help get power where it needs to be.

1906 Holt Steam Traction Engine digs out 1906 San Francisco earthquake

1930 Caterpillar machines build canals to carry water in South Africa

1931 Caterpillar delivers world's first mass-produced diesel engine

1937 Caterpillar machines work construction of Golden Gate Bridge

1944 Caterpillar machines start construction of 70,000+ miles of U.S. highways

1948 Caterpillar machines go to work on India's Bhakra Dam

1955 Caterpillar outfits U.S. government for Operation Deep Freeze

1960 Caterpillar machines help build Brazil's new capital, Brasilia

1961 500+ Cat® machines begin Mangla Dam in Pakistan

1967 Cat machines begin work on Canada's Athabasca Oil Sands, which continues today

1969 Cat® engines supply power for Apollo moon mission

1973 First Cat® Reman plant opens in Bettendorf, Iowa

1983 In Paraguay and Argentina, Cat machines help build Yacyreta Dam

1992 Caterpillar introduces SoLoNOx Technology for gas turbines

1994 Cat machines work on Kansai International Airport in Osaka, Japan

2001 Caterpillar introduces ACERT™ Technology

2004 Solar launched Mercury recuperated gas turbine

2006 34 Cat machines help complete Saemangeum Seawall in South Korea

2008 Caterpillar announces first electric drive track-type tractor

2012 Caterpillar introduces Cat® 336E H Hybrid Excavator, industry's first hydraulic hybrid

2015 Caterpillar expands renewable power generation offerings in conjunction with First Solar



APPROACH

AT-A-GLANCE



3 Million+

Products at Work
Around the World



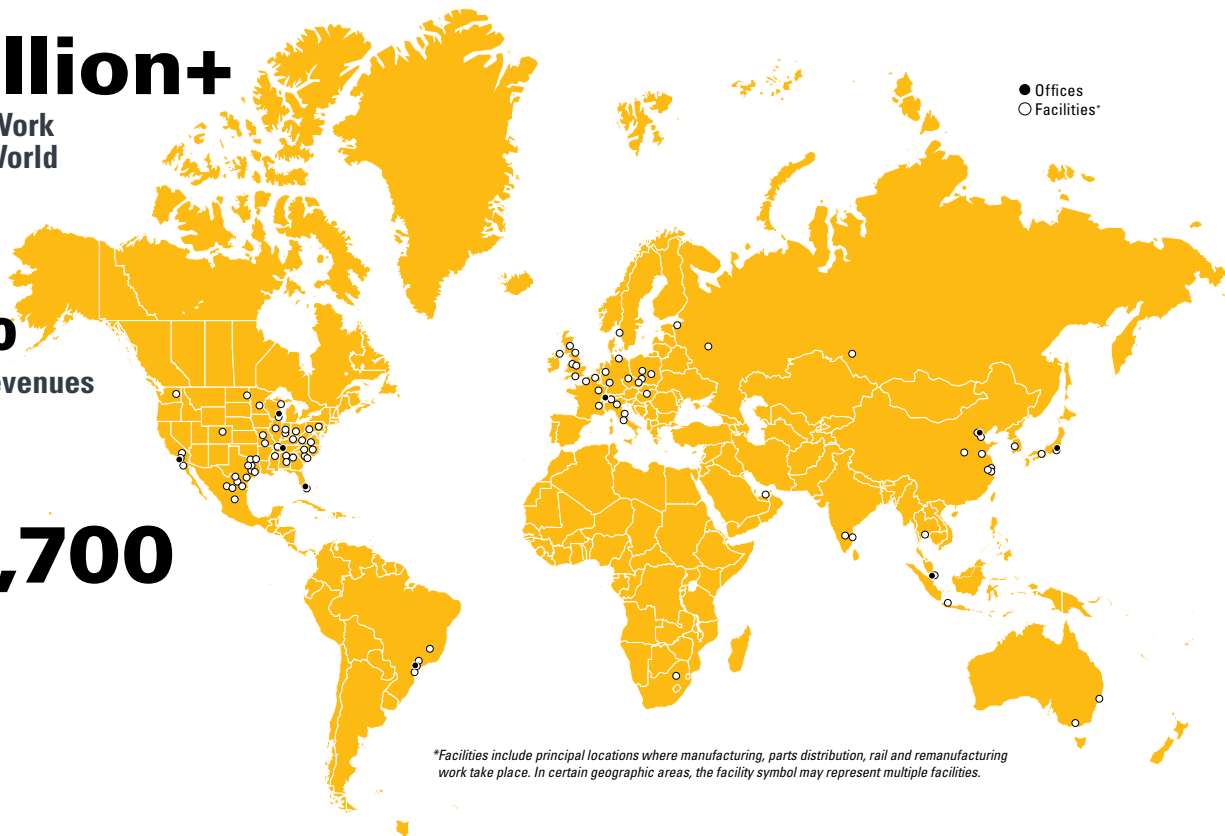
59%

Sales and Revenues
Outside U.S.



105,700

Employees



● Offices
○ Facilities*

*Facilities include principal locations where manufacturing, parts distribution, rail and remanufacturing work take place. In certain geographic areas, the facility symbol may represent multiple facilities.

Product Line



Construction



Mining
Equipment



Diesel & Natural
Gas Engines



Industrial
Gas Turbines



Diesel-Electric
Locomotives



— APPROACH —

VISION, MISSION, STRATEGY & PRINCIPLES

Vision

Our vision is a world in which all people’s basic needs – such as shelter, clean water, sanitation, food and reliable power – are fulfilled in a sustainable way and a company that improves the quality of the environment and the communities where we live and work.

Mission

Our mission is to enable economic growth through infrastructure and energy development, and to provide solutions that support communities and protect the planet.

Strategy

Our strategy is to provide work environments, products, services and solutions that make safe, productive and efficient use of resources as we strive to achieve our vision. We apply innovation and technology to improve the sustainability performance of Caterpillar’s products, services, solutions and operations. We believe sustainable progress is made possible by developing better systems that maximize life cycle benefits, while also minimizing the economic, social and environmental costs of ownership, as reflected in our sustainability principles. We will execute our strategy by working to meet our aspirational sustainability goals.

Sustainability Principles

Sustainability is part of who we are and what we do every single day. We recognize that progress involves a balance of environmental stewardship, social responsibility and economic growth.

Caterpillar Sustainability Principles drive our commitment to make sustainable progress possible.

Prevent Waste (Improve Safety, Efficiency and Productivity):

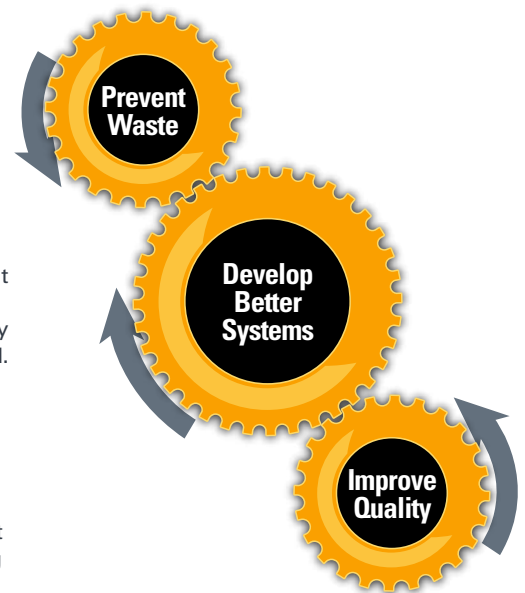
By increasing the safety, efficiency and productivity of processes and products, we reduce cost and minimize the use of materials, energy, water and land. We provide a safe work environment and the tools and training employees need to work safely. We provide customers with products, services and solutions that improve the sustainability of their operations.

Improve Quality (Team, Community, Environment and Operations):

We focus on improving quality for our company, customers, communities, environment and the quality of life for our employees. We use Lean and 6 Sigma to improve our operations and products. Our employees and their families experience a better quality of life when the quality of our company, communities and the environment is maintained. We attract and develop the best teams.

Develop Better Systems (Innovate):

We leverage innovation and technology to maximize efficiency and productivity. We remanufacture, rebuild and recycle to conserve resources for multiple life cycles. We develop products that contribute to communities through infrastructure development and energy access. We develop better systems throughout the value chain, “engineering the whole chain, not just the links,” in order to maximize life cycle benefits.





APPROACH

STAKEHOLDER ENGAGEMENT

A key element of Caterpillar’s sustainability strategy is engagement with stakeholders. Caterpillar’s External Sustainability Advisory Board (Advisory Board) is composed of experts from academia, industry and non-governmental organizations. The Advisory Board members are able to address sustainability broadly and, more specifically, sustainability as it relates to topic areas identified based on anticipated needs and benchmarking of other leading companies. The Advisory Board provides input and counsel on enterprise sustainability strategy, opportunities and challenges, emerging issues in sustainability, progress in implementation and public reporting.

In addition to providing feedback and counsel throughout the year on Caterpillar’s sustainability strategy and initiatives, this council of experts provided their comments on Caterpillar’s sustainability report and progress. Inclusion below indicates the provision of feedback, not the endorsement of the contents of the report.

Stakeholder engagement is also managed through our various business units that are responsible for each topic area. We include demonstrations of these engagements throughout the report. We communicate with and obtain feedback from stakeholders through a variety of means including surveys, in-person interactions, trade organizations and others. This feedback includes a variety of topics and stakeholder groups from customer feedback to human rights considerations.

Internally, the Caterpillar Sustainability Steering Committee provides guidance and support for our sustainability initiatives. This group is comprised of leaders from a number of business units, particularly focused on responsibilities that cross multiple divisions.

Caterpillar’s External Sustainability Advisory Board:

Aidan Davy

Deputy President and Senior Program Director, International Council on Mining & Metals

Stuart L. Hart

S. C. Johnson Professor Emeritus, Cornell University; President, Enterprise for a Sustainable World; Steven Grossman Chair in Sustainable Business, Grossman School of Business, University of Vermont

Thomas Lovejoy

University Professor of Environmental Science and Policy, George Mason University; Senior Fellow, The United Nations Foundation

Kevin McKnight

Chief Sustainability Officer and Vice President of EHS, Alcoa

William R. Moomaw

Professor, Center for International Environment and Resource Policy, The Fletcher School, Tufts University

Steve Skerlos

Thurnau Professor of Mechanical Engineering, Director of Sustainability Education Programs, University of Michigan

Leena Srivastava

Vice Chancellor, TERI University

APPROACH

AFFILIATIONS & INVESTMENTS

Caterpillar Inc., our subsidiaries and the Caterpillar Foundation work with diverse organizations in order to advance economic, environmental and social issues and share best practices across industries. Our affiliations and investments include:

Business Council for Sustainable Energy

Solar Turbines is a member of the Board of Directors of the Business Council for Sustainable Energy, which promotes clean energy technologies as solutions to economic, environmental and energy security challenges.

Business Roundtable

Caterpillar is a member of the Business Roundtable, which supports sustainable development through its member companies in addressing a vast range of environmental, social and economic issues to help ensure a sustainable future. Doug Oberhelman, Caterpillar's Chairman and CEO, is the current Chairman of the Business Roundtable.

Canada's Oil Sands Innovation Alliance

Caterpillar is an associate member of Canada's Oil Sands Innovation Alliance (COSIA), an alliance of oil sands producers focused on accelerating the pace of improvement in environmental performance in Canada's oil sands through collaborative action and innovation.

Conflict Free Sourcing Initiative

Caterpillar is an active member of the Conflict Free Sourcing Initiative (CFSI), which helps companies make informed choices about conflict minerals in their supply chains.

Diesel Technology Forum

Caterpillar is a member of the Diesel Technology Forum, a leading resource and educator on the importance and unique value of diesel engines, fuels, equipment and emissions control technology.

Energy Technologies Institute

Caterpillar is a member of the Energy Technologies Institute, a U.K.-based public-private organization focused on projects that create affordable, reliable, clean energy for heat, power and transport.

Caterpillar is proud to be included on the Dow Jones Sustainability Index. We've been included for 16 years; as sector leader in 2006, 2007, 2008 and 2010; and as industry mover in 2015.

Remanufacturing Industries Council

Caterpillar is one of the founding members and current Chair of the Board of Directors of the Remanufacturing Industries Council (RIC), which endeavors to promote the growth of remanufacturing. The RIC works across industry sectors to support the entire remanufacturing industry through a combination of collaboration, education, advocacy and research.

U.S. Green Building Council

Caterpillar is a corporate member of the U.S. Green Building Council (USGBC), which provides information, tools and training on how to design, build and operate more sustainable buildings. Since 2007, Caterpillar has maintained a policy to build and operate corporate-owned facilities in a sustainable manner.

Woody Biomass Coalition

Caterpillar is a member of the Woody Biomass Coalition, which provides advocacy, education, information and outreach to public and private entities to promote research, development and funding for sustainable woody biomass utilization and markets in the U.S.

World Resources Institute

Caterpillar is represented on the Board of Directors of the World Resources Institute (WRI), an environmental organization that goes beyond research to find practical ways to protect the earth and improve people's lives. Caterpillar is also a member of WRI's Corporate Consultative Group. The Caterpillar Foundation supports the WRI Ross Center for Sustainable Cities, which aims to catalyze the development of smart cities, which promote infrastructure development that is economically and environmentally efficient and serves as a model for sustainable development.



The Caterpillar Foundation invests with these organizations, and others, to support programs that alleviate poverty:

American Red Cross
charity: water
Feeding America
Global Poverty Project
International Youth Foundation
Local Initiative Support Corporation

ONE Campaign
Opportunity International
The Nature Conservancy
United Nations Foundation
United Way
Water.org

LEARN MORE

APPROACH

ABOUT THIS REPORT & LEGAL STATEMENTS

About this Report

At Caterpillar, our sustainability practices are focused on ways to maximize the life cycle benefits of our products while minimizing the economic, social and environmental costs of ownership for Caterpillar customers. Our most recent results are reflected in this 2015 Sustainability Report, and build on the themes and results described in our 2014 report.

In preparing the content for this report, Caterpillar consulted the Global Reporting Initiative G4 reporting framework to serve as an informal guideline. The reporting period is the 2015 calendar year, which is also Caterpillar's fiscal year. Report content represents 100 percent of the products and operations of Caterpillar Inc. and its subsidiaries where we have a controlling financial interest. Where noted, Caterpillar's independent dealer network and supplier network are also represented. Caterpillar and subsidiary brands are listed here: <http://www.caterpillar.com/brands>. Caterpillar's environmental and safety metrics for operations are consolidated based on the [Greenhouse Gas Protocol](#) "operational control" approach. Caterpillar is headquartered in Peoria, Illinois, USA. [Contact us here](#).

Legal Statements

© 2016 Caterpillar All Rights Reserved. CAT, CATERPILLAR, their respective logos, ACERT, BUILT FOR IT, MineStar, Product Link, Solar, VisionLink, "CaterpillarYellow," the "Power Edge" trade dress as well as corporate and product identity used herein, are trademarks of Caterpillar Inc. or its subsidiaries and may not be used without permission.

Forward-Looking Statements Certain statements in this 2015 Sustainability Report relate to future events and expectations and are forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995. Words such as "believe," "estimate," "will be," "will," "would," "expect," "anticipate," "plan," "project," "intend," "could," "should" or other similar words or expressions often identify forward-looking statements. All statements other than statements of historical fact are forward-looking statements, including, without limitation, statements regarding our outlook, projections, forecasts or trend descriptions. These statements do not guarantee future performance, and we do not undertake to update our forward-looking statements.

Caterpillar's actual results may differ materially from those described or implied in our forward-looking statements based on a number of factors, including, but not limited to: (i) global and regional economic conditions and economic conditions in the industries we serve; (ii) government monetary or fiscal policies and infrastructure spending; (iii) commodity price changes, component price increases, fluctuations in demand for our products or significant shortages of component products; (iv) disruptions or volatility in global financial markets limiting our sources of liquidity or the liquidity of our customers, dealers and suppliers; (v) political and economic risks, commercial instability and events beyond our control in the countries in which we operate; (vi) failure to maintain our credit ratings and potential resulting increases to our cost of borrowing and adverse effects on our cost of funds, liquidity, competitive position and access to capital markets; (vii) our Financial Products segment's risks associated with the financial services industry; (viii) changes in interest rates or market liquidity conditions; (ix) an increase in delinquencies, repossessions or net losses of Cat Financial's customers; (x) new regulations or changes in financial services regulations; (xi) a failure to realize, or a delay in realizing, all of the anticipated benefits of our acquisitions, joint ventures or divestitures; (xii) international trade policies and their impact on demand for our products and our competitive position; (xiii) our ability to develop, produce and market quality products that meet our customers' needs; (xiv) the impact of the highly competitive environment in which we operate on our sales and pricing; (xv) failure to realize all of the anticipated benefits from initiatives to increase our productivity, efficiency and cash flow and to reduce costs; (xvi) additional restructuring costs or a failure to realize anticipated savings or benefits from past or future cost reduction actions; (xvii) inventory management decisions and sourcing practices of our dealers and our OEM customers; (xviii) compliance with environmental laws and regulations; (xix) alleged or actual violations of trade or anti-corruption laws and regulations; (xx) additional tax expense or exposure; (xxi) currency fluctuations; (xxii) our or Cat Financial's compliance with financial covenants; (xxiii) increased pension plan funding obligations; (xxiv) union disputes or other employee relations issues; (xxv) significant legal proceedings, claims, lawsuits or government investigations; (xxvi) changes in accounting standards; (xxvii) failure or breach of IT security; (xxviii) adverse effects of unexpected events including natural disasters; and (xxix) other factors described in more detail under "Item 1A. Risk Factors" in our Form 10-K filed with the SEC on February 16, 2016 for the year ended December 31, 2015.



FOCUS AREAS

Caterpillar currently operates in more than 180 countries worldwide and in 2015, generated more than half its annual sales outside the United States. Operating on a global scale requires us to work within a variety of different cultures, governmental systems and economic environments. We acknowledge and respect the diversity of cultures and customs wherever we operate, and maintain a flexible business approach to best serve our customers, dealers and suppliers, while always adhering to Our Values in Action – Caterpillar’s Code of Conduct.

MATERIALITY ASSESSMENT

With the recognition of Sustainability as one of our core Values, we reviewed and updated our sustainability priorities and strategies in 2014 through a “materiality assessment.” A total of 35 sustainability aspects were identified and defined, covering environmental, social and governance considerations. Sustainability aspects were selected based on our existing strategy and goals, peer reviews and criteria in external indices and frameworks, such as the Dow Jones Sustainability Index and the Global Reporting Initiative.

As part of our work in sustainable development, we have identified a set of focus areas that intersect with our business on a daily basis and that guide our thinking as we make day-to-day business decisions. Many of these areas are associated with our 2020 aspirational, operational and product stewardship goals, while others represent areas impacting our business long term and that are important to our various stakeholders. During 2014, these focus areas were validated as part of an assessment that we conducted with stakeholders. In 2015, this analysis was further refined to consider additional stakeholder input. Read more about the assessment below.

Assessment of Aspect Influence on Stakeholders and Business

The engagement process described below included a combination of surveys and a workshop to collect input from a wide range of Caterpillar leaders as well as both internal and external stakeholders.

- An anonymous survey of our customers, employees, stockholders, dealers, suppliers, nongovernmental organizations, trade organizations and academia was conducted. Over 100 of our stakeholders participated, identifying the sustainability aspects most influential to them in their decisions about Caterpillar.
- An anonymous survey was conducted of Caterpillar executive officers, vice presidents and other key directors and managers to obtain insight from our strategic leaders as to the sustainability aspects most important to the success of our business.
- A matrix was developed that incorporated the information collected from both stakeholder surveys. The matrix provided a simple means to compare the perspectives and priorities of Caterpillar leaders with other stakeholders. It also facilitated the identification of aspects where the two groups were in agreement versus aspects where their opinions differed.

Evaluation of Assessment Results

Survey results were plotted on a matrix that was considered in a follow-up workshop to further inform our sustainability strategy and external reporting efforts. The workshop included our External Sustainability Advisory Board – a group representing NGOs, academics and trade organizations that, throughout the year, provides valuable insight to Caterpillar on external sustainability trends, expertise from their respective areas and feedback on strategic initiatives. In addition, the workshop included several Caterpillar vice presidents, selected Caterpillar leaders with sustainability responsibilities, our Sustainable Development team and our chairman and CEO. Insights gained from the workshop were combined with the survey results and matrix and used to refine and prioritize Caterpillar’s “material” aspects. These aspects will be used to inform and direct future activities for strategic improvements.

PRIORITIZATION OF FOCUS AREAS

While stakeholders universally agreed that all 35 aspects identified were important, the process enabled Caterpillar to identify some new and emerging areas of interest to our stakeholders. Specifically, the identified aspects were business ethics and core values, strategy, financial performance of the enterprise, product performance (customer safety, energy efficiency/greenhouse gas and other air emissions, and development for the life cycle), dealer network, innovation management, and employee occupational health and safety. In 2015, we reviewed the aspects identified in 2014 and considered additional feedback from stakeholders. Primarily, we reviewed requests that were submitted to Caterpillar and rating systems such as the Dow Jones Sustainability Index requirements. These stakeholder interactions identified expectations for our reporting that we are committed to reporting, such as inclusion of human rights and the environmental impacts of our manufacturing operations. Although these focus areas are specifically identified in this report, we recognize that priorities will vary by business unit and by region.

FOCUS AREA	“MATERIAL” ASPECTS INCLUDED WITHIN THIS FOCUS AREA
Our People	Employee occupational health & safety
Energy & Climate	Energy and climate policy and programs
Operational Environmental Impact	Energy efficiency, greenhouse gas, water and waste management
Product Stewardship	Innovation management, customer safety, energy efficiency/GHG and other air emissions and life cycle product development
Value Chain	Dealer network
Governance and Ethics	Business ethics and core values, business strategy and financial performance of the enterprise
Community Impact	Human rights



FOCUS AREA

OUR PEOPLE

Our employees have always been the backbone of Caterpillar's success. They provide the innovative and diverse thinking we need to serve our customers. That is why we are committed to fostering a diverse, inclusive and safe environment where everyone can thrive and be successful. By leveraging each individual's unique skills, abilities, experiences and cultural background, Caterpillar people can achieve superior business and personal results. When we seek out and are receptive to different points of view, we foster innovative solutions that can make us all more successful.

Quality is one of Caterpillar's key sustainability principles. Traditionally, this applies to the quality of the processes, products, services, solutions and safety practices throughout the enterprise. But our commitment to quality also applies to the quality of life of our employees and members of the communities where we work.

Additionally, we promote the health and safety of our people with policies and proactive programs that help individuals stay safe, personally and professionally. We develop our products, manufacturing processes, training programs and customer assistance programs to minimize safety risks because the safety of our operations and the unique capabilities of our employees ensure the long-term success of our enterprise.

To continue fostering this environment, we start by leveraging our global reach and living our timeless values, which enable us to build a better world.

Our Global Reach

Achieving Caterpillar's strategic vision requires building the best team by hiring and retaining the best people, which is why we are focused on providing employees with significant and diverse career opportunities. Our global reach provides our people with the ability to move between different locations, business units and product groups during the course of their careers at Caterpillar. These opportunities, along with career development resources, make it possible to have an exciting and meaningful experience with Caterpillar.

Our Timeless Values

In 1974, Caterpillar first published a Worldwide Code of Conduct. Now known as Our Values in Action – Caterpillar's Code of Conduct – the document articulates our commitment to Integrity, Excellence, Teamwork, Commitment and Sustainability. We want to surround ourselves with talented people who love what they do and who want to help others succeed. In addition, Caterpillar strives for a diverse and inclusive work culture that helps bring our best ideas to the forefront. The passion of our employees is infectious and inspiring, as is their emphasis on teamwork. The people of Caterpillar are called to bring integrity, accountability and courtesy to every interaction between our employees, independent dealer network, supply chain and our customers.

Building a Better World

Caterpillar provides the opportunity for employees to be a part of products, services and programs that are helping to build a better world each and every day. This makes a transformational, tangible impact – not only on their own communities, but also on communities around the globe. Together, our employees, customers and products play a critical role in developing infrastructure and creating economic growth throughout the world. Our contributions range from helping provide basic infrastructure like roads, sanitation, airports and power to transforming societies.



FOCUS AREA

OUR PEOPLE

Safety

We are dedicated to the safety of everyone at Caterpillar, including our extended team of contractors, dealers, suppliers and customers. Our commitment to safety begins with the engineering of our products and manufacturing processes, and extends to operator training, job site solutions and the workplace cultures that guide the way we work.

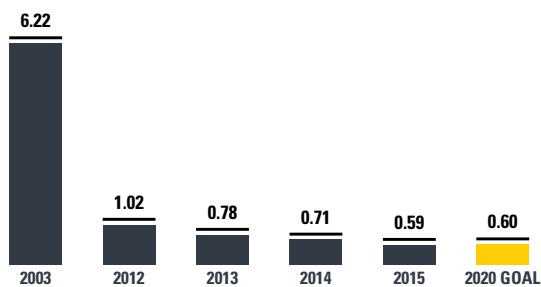
Caterpillar’s Health & Safety professionals play a key role in providing expertise and support to Caterpillar operations around the world. Caterpillar Safety Services supports enterprise facilities, dealers, suppliers and customers by leveraging cultural assessment tools, guiding continuous improvement processes, providing technology to see and mitigate risk and sharing a wealth of free, industry-specific safety resources. The cat.com/safety site provides access to a wide range of interactive online training courses for safety, health and the environment – in full support of our vision: Safely home. Everyone. Every day.™

From 2014 to 2015, we continued to build upon a trend toward world-class performance in safety with a 17 percent reduction in Recordable Injury Frequency (RIF) and a 13 percent reduction in Lost-Time Case Frequency Rate (LTCFR).

Caterpillar’s risk assessment process brings a global focus to safety and ergonomic risk and has resulted in the reduction of risks for thousands of work elements further driving the reduction in ergonomic and other injuries. Initiatives at many of our locations continue to drive our safety results.

RECORDABLE INJURY FREQUENCY (RIF)

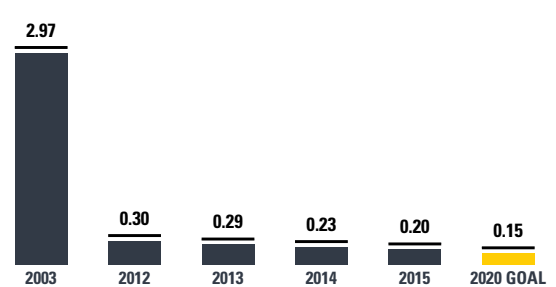
Recordable injuries per 200,000 hours worked



We have improved our Recordable Injury Frequency rate by 90.5 percent from our 2003 base year and 17 percent from our last reporting period.

LOST-TIME CASE FREQUENCY RATE (LTCFR)

Work-related injuries resulting in lost time per 200,000 hours worked



We have improved our Lost-Time Case Frequency Rate by 93 percent from our 2003 base year and 13 percent from our last reporting period.



REVITALIZING A CULTURE OF SAFETY

As we work to reduce our enterprise Recordable Injury Frequency (RIF), there are countless large and small steps we have taken as demonstrated by our progress to date. But even the most dedicated facilities sometimes reach a “safety plateau,” where further improvements become more difficult to achieve. When our Mapleton, Illinois, Cast Metals Organization facility found their safety numbers plateauing at the end of 2012, they deployed facility-wide initiatives to break through to the next level of safety excellence.

In 2015, Mapleton reduced its injury rate by 18.3 percent over the previous year, and injury rates have fallen by 66.3 percent since 2010.

The safety team, aided by the commitment of each of the nearly 600 employees on-site and the Caterpillar Safety Services Zero Incident Performance (ZIP™) Process, undertook a cultural shift in how they address safety, thinking of the program as ‘creating the presence of safety’ rather than ‘the absence of injuries’. Part of this shift involved making the concept of safety personal. An acronym like RIF is not easy to relate to daily work, but seeing and discussing how each injury affects real people in their work and personal life truly drives home the importance of safety. The safety team encouraged this viewpoint by dedicating all-employee meetings to recent on-site injuries and dialogues about how to make safety proactive instead of reactive. In 2015, Mapleton reduced its injury rate by 18.3 percent over the previous year, and injury rates have fallen by 66.3 percent since 2010.

Many of the safety improvements that Mapleton has implemented to break through its safety plateau have been generated by the employees themselves using a “Green Card” program to document and communicate when employees identify, and proactively fix, a safety risk. In 2015, Mapleton employees submitted nearly 5,000 Green Cards representing potential hazards or conditions that they worked on independently or with management to address, and believed could be improved. The facility also uses a “Star Green Card” system to allow department heads to further recognize employees who have gone above and beyond to fix a potential

safety risk. The facility has implemented a full-time Safety Champion position for each department, empowering employees to apply their specific knowledge of shop floor and safety practices to work with department heads to enact health and safety initiatives.

Because safety communication has been fundamental to the success of Mapleton’s efforts, the safety team created a safety improvement video, which is screened throughout the facility and updated each month to reflect the process and facility safety improvements that have been implemented. Often these videos highlight innovative solutions developed and implemented by the employees. Facility Manager Gary Bevilacqua attributes the success of the videos to the fact that it is a communication method that allows a different type of dialogue. “People are starting to talk about safety more openly and listening to the messages on the videos,” he said. “It’s generating awareness and more individuals are coming forward with new ideas and aren’t afraid to discuss them with their teams.”

Caterpillar Torreón Redesigns Tools for Ergonomic Safety

Across our manufacturing operations, our employees have developed unique processes to create Cat® products. At Caterpillar Torreón, in the Mexican state of Coahuila, our employees have custom-built dozens of hand tools to help them in their daily work. After review by Torreón’s safety team, we determined that a number of those tools would benefit from ergonomic improvements to make them more efficient and protect our employees from injuries. Over the course of six months, the Torreón environment, health and safety team worked with facility employees to evaluate their hand tools using the United States National Institute for Occupational Safety and Health (NIOSH) hand tool checklist, and then standardized and redesigned the tools to improve safety and ease of use. As a result of these improvements, our people are safer and more productive. The Torreón team also estimates that the facility will save more than \$268,000 per year in lost time and workers’ compensation costs.



FOCUS AREA

OUR PEOPLE

Diversity and Inclusion

Diverse and inclusive work environments embrace the values and unique talents, experiences and viewpoints of employees. This approach is aligned with our strategic goal of Best Team. To achieve the Best Team goal, our global Diversity and Inclusion strategy includes:

- Defining a clear set of roles, responsibilities and accountabilities for all employees
- Holding management at all levels accountable for results through defined diversity and inclusion metrics
- Building sustainability by embedding diversity and inclusion into key people processes

Caterpillar’s Diversity and Inclusion progress has earned Caterpillar several accolades. In 2015 alone:

- *DiversityInc* magazine named Caterpillar to the “Top 25 Noteworthy Companies,” “Top 10 Companies for Global Diversity” and “Top 10 Companies for Employee Resource Groups.”
- Designation as a “Military Friendly Employer” in the U.S.
- Placed on the Human Rights Campaign Foundation’s Corporate Equality Index
- Received The Executive Leadership Council’s 2015 Corporate Award recognizing Caterpillar’s journey and ongoing support of diversity, inclusion and achievement in business.

Employee Resource Groups

Caterpillar [Employee Resource Groups](#) (ERGs) not only help drive innovation, but also provide personal and professional development opportunities, help attract talent at recruiting events and help retain this talent through mentoring and networking opportunities. In addition, ERG members frequently reach out to serve the communities where they live and work, demonstrating their support of learning institutions, charitable organizations, crisis relief efforts and cultural and artistic programs, to name a few.

ERGs exist for an approved business purpose and are independent, voluntary and nonprofit by nature. Membership in any ERG is open to all Caterpillar employees interested in supporting the group’s stated mission and objectives. Members of an ERG help sustain an engaged workforce at Caterpillar – as evidenced by members having consistently higher responses on engagement surveys.

Honoring our Diverse Employees

In 2015, four of our employees won awards from diversity-focused groups recognizing the positive impacts they have had on Caterpillar operations. In Little Rock, Arkansas, operations manager Paul Rivera received the Society of Hispanic Professional Engineers Technical Achievement Recognition Award for the safety, quality, velocity, cost and engagement improvements that have been made there under his leadership. Also in 2015, the Society of Women Engineers recognized three Caterpillar employees – Margo Bubb, Stacey DeVecchio and Irma Khan – as exemplary members for their contributions to the industry.



FOCUS AREA

OUR PEOPLE

Talent Development

As a company with hundreds of global locations that serves diverse industries as varied as transportation, construction, oil and gas, mining, marine and forestry, we are in a unique position to offer opportunities and valuable rewards for all our employees. This includes learning opportunities both inside and outside of Caterpillar, targeted leadership, skills or language training and formal benefits such as medical plans that help promote the long-term health and wellness of our employees and their families.

Learning & Development

Caterpillar offers a variety of formal and informal opportunities for individuals to increase skills and knowledge. Some of these opportunities include in-person training, e-learning and other tools so Caterpillar can help sharpen the skills of our employees, dealers and suppliers. Whether an individual is interested in improving skills for a current job, preparing for a future role, or having a long-range career plan in mind, Caterpillar supports the learning journey recognizing the importance of on-the-job-experiences, coaching and feedback, along with formal training and learning.

Leadership Excellence in Accountability and Development

Leadership Excellence in Accountability and Development (L.E.A.D.) is a global leadership program, designed by Caterpillar, for Caterpillar. This program offers a comprehensive leadership development experience focused on educating leaders to effectively develop and guide individuals and teams to achieve business results. The objective of the program is to ensure that leaders, at all levels, are ready to lead with Our Values in Action and hold themselves and others accountable for results.

For leaders with the potential to move to higher leadership levels within the organization, L.E.A.D. has offered additional programs. The flagship program, Digging Deep, provides leaders an opportunity to travel to diverse markets such as China and Brazil, and go beyond classroom learning through participation in action learning projects that address actual business challenges.

Learning Management System

The Caterpillar Learning Management System is a common, easy-to-use tool for employees seeking Caterpillar-provided learning opportunities. The web-based program can be accessed through Caterpillar's intranet and allows employees worldwide to browse the online course catalog, register for information and courses in their local language, launch web-based training, track individual learning history and review learning experiences with their supervisor.

Freedom of Association and the Right to Collective Bargaining

While we believe that fostering a direct relationship with our employees is the most effective way to operate Caterpillar's business, we acknowledge and respect the right of our workers to choose whether or not to join unions and bargain collectively, or work through local works councils, in accordance with applicable laws. In 2015, Caterpillar had more than 130 labor contracts with 50 different labor organizations representing employees in our global workforce.



FOCUS AREA

ENERGY & CLIMATE

Energy is a key requirement for sustainable progress and development around the world. Energy consumption is rising rapidly, driven by worldwide population growth, swiftly developing economies, improving global living standards and the rapidly increasing use of ever more energy-dependent technologies. Global demand for energy is expected to increase significantly over the next 25 years, based on outlooks from the International Energy Agency.

As a global energy consumer and industrial manufacturer, and a major manufacturer of energy conversion and power-generation products, Caterpillar has a fundamental interest in, and understanding of, energy needs around the world. We are providing products with leading integrated technology to various energy markets and leveraging our technology and innovation to meet the world's growing energy needs.

Greenhouse gas (GHG) accumulation in the atmosphere is a major concern in both the public and private sectors because of the potential for these gases to affect climate patterns. As a result, many governmental and intergovernmental organizations are implementing mechanisms in an attempt to reduce GHG emissions. We support intelligent, responsible public policies addressing climate and energy issues.

Additionally, we support the reduction of GHG accumulation through improved GHG management practices. Atmospheric GHG accumulation can occur as a result of inefficient or excessive fossil fuel combustion, poor waste management practices or poor land management practices. Caterpillar is a leader in the development and deployment of innovations and technologies that, through our products, assist in the mitigation of all three of these sources.

For our customers, job site fuel efficiency, which contributes to reductions of GHG emissions, is strongly considered in our new-product development efforts. As a result, breakthroughs have been achieved in the development and implementation of innovations such as combined diesel and electric drives, hybrid systems, continuously variable transmissions, job site optimization technologies and services and alternative fuel utilization.



FOCUS AREA

ENERGY & CLIMATE

Energy Access

Energy is a key requirement for sustainable progress and development around the world. We believe:

- Energy sources need to be developed and used in a sustainable manner.
- There is no one single solution to providing abundant, reliable, secure and reasonably priced energy on a global basis. Political and industry leadership is required to forge consensus and a commitment to providing energy and related infrastructure that address economic development, stability and environmental impacts.
- Market-based, cost-efficient energy solutions are the best way to help meet the world's growing energy demands.
- Access to affordable and dependable energy resources is critical for energy security, economic prosperity and growing economies. Caterpillar supports balanced and comprehensive energy policies for the responsible development and utilization of all energy resources, including traditional sources of energy and expanded use of alternative energy technologies.
- When regulation is necessary, we support regulatory structures that provide a technology-neutral and level playing field that embraces competition and in which Caterpillar, our independent dealers and our customers can operate.
- We support the development and use of strategies and technologies to increase energy efficiency and reduce emissions.

Our Products, Services and Solutions

Caterpillar collaborates with our independent dealers to deliver highly customized and site-specific solutions that result in optimized use of our equipment, with the goal of an improved bottom line for our customers. We offer training to our customer operators on how to use our products more efficiently.

Because energy is a key requirement for development, we focus our efforts on improving efficiency and reducing emissions while increasing energy access. Caterpillar leverages technology to create more efficient power-generation solutions. With distributed generation solutions utilizing diesel and natural gas engines, as well as alternative fuels, Caterpillar is well-positioned to get power where it needs to be. Further, Cat® equipment helps meet the demands of the mining and resources industries to get raw materials where they need to be to create increased access to power.

Caterpillar has implemented hundreds of distributed power generation systems all over the world, which contribute to improving energy access in the developing world while emitting fewer greenhouse gas (GHG) emissions compared with traditional power grid systems. We provide combined heat and power systems, and combined-cycle power systems that can double the efficiency of power generation when compared with the efficiency of conventional power grids. Additionally, our power systems utilize fuels from diverse sources such as gas from landfills, livestock operations, wastewater treatment operations, mine methane, flare gas, syngas and biofuels. These systems provide energy diversity from plentiful (and in many cases, renewable) energy sources.

The Caterpillar Foundation is a proud supporter of the ONE Campaign, an organization that is achieving success in advocating for the bipartisan Electrify Africa Act. This bill will help sub-Saharan African countries modernize their power infrastructure and increase their access to electricity — saving lives, strengthening education, alleviating extreme poverty and accelerating growth and development.

FOCUS AREA

ENERGY & CLIMATE

Energy Access

(continued)

Energy Poverty

One of the biggest differences between a developing nation and a developed nation is reliable access to energy. We support and are committed to increasing that access, helping economies grow and reducing energy poverty where it exists. According to the World Bank, an estimated 1.1 billion people globally do not have access to electricity. Lack of access to modern energy services hinders economic and social development, making it more difficult to provide water purification, sanitation and education. Today, the technology and natural resources exist to rapidly expand energy access, but the challenge is accomplishing this in an effective and efficient manner.

According to the World Bank, an estimated 1.1 billion people globally do not have access to electricity.

Energy diversification – such as coal in combination with carbon capture and storage, new nuclear buildouts, new natural gas reserves, plus renewable energy sources like biogas, wind, photovoltaic or solar, tidal and others – will contribute to an energy portfolio that helps eliminate energy poverty, raises standards of living and propels economic growth with less impact on the environment. Coal is abundantly available and has the scale to meet the primary energy needs of the world’s rising population and expected economic growth over the next several decades.

Also, according to BP, natural gas production has increased more than 15 percent from 2009 to 2014 and more than 1.5 percent from 2013 to 2014, resulting in economic growth for many communities with recoverable reserves. Products capable of using alternative or blended fuels are also increasingly available. Eliminating energy poverty is a vision that can be achieved. The manner in which Caterpillar products and services provide solutions to energy access is broad, diverse and takes many forms as these examples from 2015 demonstrate.

Turning Food Waste into Energy

Food waste is a major problem in the United States and around the world; recent research suggests that as much as one-third of all the food produced is spoiled or wasted instead of eaten. And food that ends up in a landfill generates methane, a potent greenhouse gas. A new project, the Central Florida Energy Garden in Orlando, Florida, turns the problem of wasted food into a three-pronged benefit. Caterpillar’s customer Waltham, Massachusetts-based Harvest Power, couples an anaerobic digester with two Cat® generator sets to produce 5.4 megawatts of combined heat and power – enough energy to power 2,000 homes per year. As this video shows, Harvest Power and its partners – including many of Orlando’s theme parks, hotels and restaurants – are now taking 120,000 tons of organic waste every year and turning it into energy, while also using some of the heat from the process to dry out the left-over organic material for use as fertilizer on local farms.



Reliable Power for Development

There is no more critical component to improving the economic standard of living in developing economies than steady, reliable power. In Tanzania, only 11 percent of the population has access to reliable electricity, which has slowed economic development for decades. Today, however, there are an increasing number of solutions, such as a Caterpillar project with the Wentworth Group in Tanzania to build a gas-to-power project that brings 24/7 power to the people of Mnazi Bay and the city of Mtwara. This video demonstrates how significantly access to energy can impact the social and economic growth of a community.





BRINGING RENEWABLE ENERGY TO ANYWHERE IN THE WORLD



Renewable energy technologies are showing great promise to change how energy is produced around the globe, while addressing basic human needs. In 2015, Caterpillar launched a number of initiatives that will provide reliable, cost-effective and sustainable energy wherever it is needed.

For example, microgrid technologies that couple renewable energy generation with traditional generators and energy storage systems can be deployed to places where the grid is weak, or does not reach. In 2015, Caterpillar entered a strategic alliance with solar industry leader First Solar to develop and distribute Cat branded photovoltaic modules for incorporation into microgrid systems that can be utilized anywhere from remote villages to mining operations. Caterpillar will distribute this innovative technology through our global network of dealers, providing value to our customers by integrating solar energy systems with Caterpillar's trusted expertise in distributed power generation technologies.

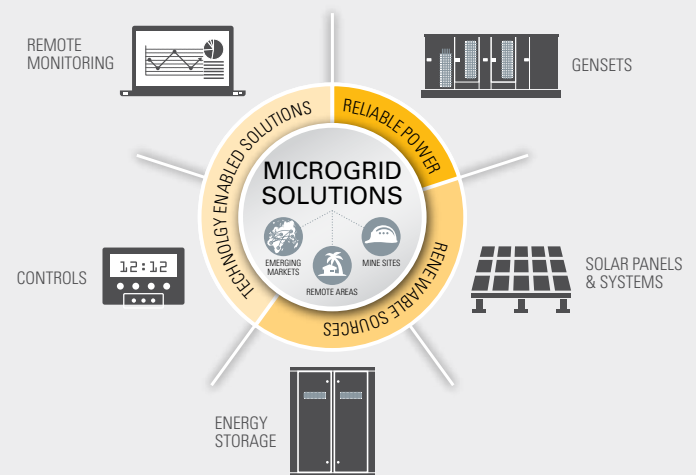
Caterpillar is also leveraging the advanced thin film solar panel technology for our traditional commercial and industrial customer's energy needs in more developed markets such as the United States and China. The thin film solar panel technology has higher energy capture characteristics than traditional solar panels, yielding increased annual energy production for our customers. Integration of these products with traditional standby generator sets allows customers to leverage the benefits of renewable energy even if the grid goes down, providing an even higher level of energy independence.

Another important technology that is rapidly progressing is energy storage systems, which allow customers to capture surplus renewable energy and store it for later use. Caterpillar, leveraging our bi-directional inverter technology developed for mining trucks and hybrid tractors, offers a full range of energy storage technologies, ranging from ultracapacitors for short duration storage to long duration metal-air energy storage products. Recognizing the benefit that energy storage technology can offer our customers, in 2015 Caterpillar invested in Fluidic Energy, the makers of metal-air energy storage technologies. We chose Fluidic Energy for this endeavor because the company's technology offers potentially significant advantages in terms of energy storage cost, depth of discharge, cycle life and safety over some traditional energy storage products.

Leading by example, Caterpillar is first deploying world-class microgrid technologies at some of its own facilities. Many Caterpillar operations resemble the commercial/industrial operations of our customers, so microgrid installations at Caterpillar facilities provide a hands-on educational and training experience for customers

and dealers while simultaneously providing cost and emission reductions for the company. A prime example is the Caterpillar Tucson Proving Ground facility located in Arizona. Caterpillar performs validation testing of its mining equipment at this site, which is comprised of an office building, shop areas and large open-air test areas. Existing Cat® C15 diesel generator sets operate continuously to provide approximately 400kW of electricity to the site, consuming approximately 250,000 gallons of diesel fuel per year. Extending the local utility grid to this remote location is cost-prohibitive, but microgrid technology is now a cost-effective complement to diesel generators alone. We are installing 500kW of solar panels, 500kW of energy storage and a microgrid controller to seamlessly integrate these sources with the existing diesel generators. The system will carry the site load during daylight hours, enabling the diesel generators to reduce power output and shut down. Fuel consumption and exhaust emissions are expected to be reduced by 33 percent and generator maintenance is expected to be reduced by 25 percent, with the resulting cost reductions providing an attractive return on the investment in the microgrid. Real-time performance of the system will be monitored remotely, and will be available for viewing online by select Cat® dealers.

Moving forward, we intend to deploy similar microgrid systems, solar panels and energy storage systems to customers throughout the world – whether in remote villages, mining sites, islands, military installations, telecommunications facilities, or commercial/industrial facilities. By expanding Caterpillar's broad power generation portfolio and solutions, we are reducing customer costs and site emissions, while expanding access to electricity to those in the greatest need. Our goal is simple – to provide our customers and the communities where they work and live a brighter future no matter where they are in the world.





FOCUS AREA

ENERGY & CLIMATE

Climate Policy

Caterpillar supports integrated carbon and climate policies that effectively balance environmental and economic considerations. We understand that the most immediate and measurable benefits will occur through energy-efficiency improvements and corresponding greenhouse gas (GHG) emissions reductions.

In responding to the challenge of reducing our GHG emissions, Caterpillar has formed cornerstone beliefs about carbon and energy-efficiency issues. Caterpillar supports intelligent, responsible public policies addressing these issues. We are:

- Setting aggressive energy efficiency and GHG reduction goals for our operations.
- Investing in energy-efficiency and emissions-reduction technologies for our products that are important to our stakeholders and represent significant areas of opportunity for our business.
- Committing to the development and deployment of advanced technologies that capture and store GHG emissions.
- Supporting policies and mechanisms that harness the marketplace to drive innovation, mobilize investment and facilitate sharing these technologies.
- Encouraging the coordination of domestic and international programs that maximize the use of flexible, proven mechanisms to sequester carbon in soils, plants and ecosystems.

Operating in a Carbon-Constrained World

Despite the divergent proposals under discussion worldwide, Caterpillar believes that technology and innovation play a key role in any successful strategic approach to emissions reduction. We believe that the private sector must take the lead in developing and deploying technology solutions to reduce GHG emissions. Ideally, regulatory structures should provide a technology-neutral and level playing field in which competitive solutions can be developed.

Caterpillar believes in the importance of providing energy-efficient products and technologies for our customers and our facilities, and we advocate for policy solutions that balance environmental stewardship, social responsibility and economic growth. We work with policymakers on developing economy-wide emissions-reduction programs in the United States that work in conjunction with international efforts to reduce GHG emissions.

Businesses will struggle to find solutions if vastly differing approaches to GHG reduction are implemented around the world. That is why we will continue to advocate for a comprehensive, international approach that encompasses emissions-reduction commitments from all major economies.

FOCUS AREA

ENERGY & CLIMATE

Climate Policy

(continued)

Caterpillar has advocated for a comprehensive international approach to reducing GHG emissions for many years. In this context, the 2015 agreement in Paris within the United Nations Framework Convention on Climate Change seeks a broad, harmonized approach to GHG emissions reduction. In addition to our advocacy for a global approach, we advocate for GHG policy change at local, regional and national levels through our Government Affairs teams and our memberships in trade and lobbying associations. We encourage a constructive dialogue and a proactive approach to providing energy safely, efficiently and affordably to the billions of people who inhabit our planet.

Our Operations

Caterpillar has been a leader in setting aggressive GHG-reduction targets for our operations since 2003. We have established an intensity-based GHG-reduction goal that measures the efficiency of our growth. For more details on our GHG reduction efforts, see the [operational impact focus area of this report](#).



Our Products, Services and Solutions

Caterpillar is committed to the success of our customers. As customers increasingly demand greater fuel efficiency and technology that helps them reduce GHG emissions, we are further motivated to help our customers achieve their emission-reduction goals. Their needs provide valuable business opportunities to Caterpillar.

In 2015, Solar Turbines received the San Diego County Air Pollution Control District’s Blue Sky Award in recognition of sustainability improvements in its manufacturing operations and product contributions to greenhouse gas emission reductions.

We continue to invest in research and development aimed at products with fewer direct emissions, improved efficiency and/or improved productivity. In doing so, we help our customers improve their own operations, while also driving our competitors to improve.

Job site fuel efficiency, which contributes to reductions of GHG emissions, is strongly considered in our new product development efforts. By developing products, services and solutions that increase customer efficiency, we are also reducing the emissions that would otherwise have been generated from the use of less efficient products or solutions.

Carbon Research Investments

We recognize the need to reduce GHG accumulation in the atmosphere and also believe carbon can offer productive uses in a variety of applications. We are investing in research and advocating for policies that support these developments in diverse areas such as improved land management, restoration of degraded lands, and carbon capture and storage technologies.

Caterpillar invests in research aimed at carbon capture and storage (CCS) with the U.K. Energy Technologies Institute (ETI). We are a founding member and co-funder of the ETI, a collaboration between industry and the U.K. government to accelerate the development of technologies that address the challenges of climate change and provide affordable energy access. The U.K. is a good base for this program as it has been pursuing the target of an 80 percent CO2 reduction by 2050 for a number of years.

To accelerate the deployment of new, low-carbon energy technologies, ETI has a budget of up to \$75 million per year to fund a portfolio of technology development and demonstration projects across a wide energy spectrum, including distributed energy; offshore wind power; marine power technologies; energy infrastructure; transport, including heavy-duty vehicles; CCS; bio-energy and demand-side management for buildings. As part of its program, ETI has created a suite of modeling tools to understand the elements of such a low carbon energy system and then optimize the system for robustness, lowest cost and other criteria. The modeling work has also guided their strategic investment in critical low-carbon technology development projects. These projects bridge the gap between laboratory scale research and development and commercial deployment of large-scale engineering projects.

In 2015, Caterpillar Oil & Gas accepted an award of excellence from the World Bank Global Gas Flaring Reduction Partnership on behalf of Hess Corporation and GTUIT, a manufacturer of mobile gas treatment systems in which Caterpillar has made an equity investment. Hess is using 15 of GTUIT’s mobile gas capture and natural gas extraction units at well sites in North Dakota’s Bakken oilfield.

FOCUS AREA

ENERGY & CLIMATE

Climate Policy

(continued)

The use of CCS technologies has the potential to significantly reduce emissions from fossil fuel power stations if proven in industrial applications. The ETI carbon capture and storage work includes research on power station-scale technology, evaluating a number of technologies that absorb CO₂ from the power station flue gas and then desorb the CO₂ to be piped to a storage reservoir. Design guidelines for piping and pumping of CO₂ and review of new CCS technologies are being evaluated as technology companies and universities develop them. In addition, Caterpillar supported ETI research to look at mineralization, although energy consumption of this technology is currently too high to justify its deployment in the short term.

Additionally, Caterpillar is a member of the project advisory group for the Midwest Geological Sequestration Consortium. In 2012, the Consortium began a CO₂ storage project in Decatur, Illinois, with a goal to successfully demonstrate large-scale, deep saline geological storage of 1 million metric tons (1.1 million U.S. tons) of CO₂.



SHINING A LIGHT ON THE CLIMATE BENEFITS OF NATURAL INFRASTRUCTURE

Cat® products are used to support infrastructure projects around the world, including natural infrastructure projects such as the restoration of forests, wetlands and other landscapes. We believe that Caterpillar’s expertise across industries puts us in a prime position to drive the global discussion on the importance of natural infrastructure and its restoration. Not only is sustainability one of our Core Values, but over our 90-year history we have also built relationships across a wide range of infrastructure businesses that will be critical to restoring the world’s natural landscapes. Already, Caterpillar has supported a number of major natural infrastructure restoration projects, including Everglades restoration projects in Florida, clean-up work in the wake of Hurricanes Sandy and Katrina and remediating Superfund sites across the United States.

Around the world, governments, industries and individuals are talking about climate change, the threats it poses to our livelihoods and the best ways to address it. The majority of the conversation has focused on the role energy plays in our global carbon footprint. Natural infrastructure – forests, prairies, agricultural lands, coastal landscapes, wetlands and other landscapes – also plays a vital role in managing carbon and supporting global sustainability. In 2015, to complement our existing initiatives focused on reduction of greenhouse gases, Caterpillar spearheaded an effort to raise awareness of the benefits of natural infrastructure.

Caterpillar has supported a number of major natural infrastructure restoration projects, including Everglades restoration projects in Florida, clean-up work in the wake of Hurricanes Sandy and Katrina and remediating Superfund sites across the United States.

Natural infrastructure sequesters billions of tons of carbon for productive use in plants and soils. Scientists say that more carbon resides in soil than in the atmosphere and all plant life combined; there are 2,500 billion tons of carbon in soil, compared with 800 billion tons in the atmosphere and 560 billion tons in plant and animal life. The food, fiber and lumber produced from natural infrastructure provide our nourishment and much of the raw materials for clothing and housing. With the earth’s population expected to grow from 7 billion to more than 9 billion in the next few decades, ensuring the health and productivity of our natural infrastructure will be integral to meet the growing need for food and other basic human needs.



And yet, a recent United Nations report, the State of the World’s Land and Water Resources for Food and Agriculture (SOLAW), found 25 percent of the world’s lands are now considered “highly degraded” as a result of poor management practices. This means that an area roughly the size of North America may suffer from deforestation, desertification, severe erosion and wetland contamination. As a result, communities that depend on these lands may experience less productive farmland, poorer water quality and lower storm resilience. According to Ohio State University’s Carbon Management and Sequestration Center, restoring soils of degraded and desertified ecosystems has the potential to provide an additional 1 billion to 3 billion tons of in-soil carbon storage capacity annually, equivalent to approximately 3.5 billion to 11 billion tons of CO2 emissions.

In November 2015, Caterpillar hosted the first major national summit in the United States of diverse stakeholders who have a part to play in natural infrastructure restoration. The summit brought together leaders from engineering, construction, finance, governments, academia and non-governmental organizations to establish a coordinated effort across these industries to develop and deploy sustainable development solutions. Participants delved into the scientific and business cases for natural infrastructure restoration and brainstormed policies, business models and financing solutions needed to expand the world’s natural infrastructure restoration efforts.

Following the summit, Caterpillar has published a comprehensive [white paper](#) detailing the summit discussions. The paper highlights the recommendations that businesses and governments may consider to increase the effectiveness of efforts to restore natural infrastructure and keep pace with our need for the critical services, including carbon sequestration and resources, that natural ecosystems provide. Through the use of our products for natural infrastructure restoration projects and continuing to increase awareness, this is another way that Caterpillar can continue to build a more sustainable world.





FOCUS AREA

OPERATIONAL IMPACT

Since 2006, our facilities have been working to minimize the environmental impact of our operations.



GHG INTENSITY
↓32%



ENERGY INTENSITY
↓24%



WATER CONSUMPTION INTENSITY
↓30%



ALTERNATIVE/RENEWABLE ENERGY USE
27.1%



WASTE INTENSITY
↑4%



90%
WASTE RECYCLED IN 2015



FOCUS AREA

OPERATIONAL IMPACT

Energy Conservation

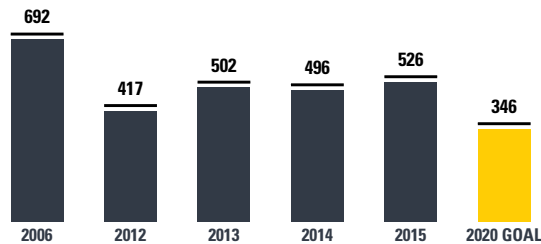
As a manufacturer of heavy equipment, some of Caterpillar’s operations are extremely energy-intensive. But even in our most energy-dense environments, Caterpillar employees have found ways to implement innovative energy systems that reduce our energy costs as well as our environmental impacts.

We have set targets for energy efficiency in our operations since 1998. We currently have a target for the use of alternative and renewable energy in our operations, as well as a target for reducing our energy intensity in operations. Our enterprise energy management team is instrumental in building awareness, encouraging action and developing projects in the areas of energy efficiency and alternative/renewable power generation. Current uses of renewable energy sources were achieved through facilities’ installation of renewable energy sources such as biogas and photovoltaics (PV), as well as their purchase of renewable energy certificates. Our largest contribution to alternative energy consumption is the operation of combined heat and power (CHP) facilities to power several manufacturing facilities. The energy management team is evaluating additional opportunities for replication of CHP at other locations.

Operational energy intensity decreased 24 percent from 2006 to 2015. In addition, our absolute energy consumption decreased 10 percent from 2014 to 2015. This progress represents a continued commitment to investment in more energy-efficient equipment and processes, as well as the implementation of best practices at our facilities around the world. In addition, we have further increased our use of alternative electrical energy sources, namely CHP.

ENERGY INTENSITY

Absolute gigajoules energy use/million dollars of revenue



As we work to achieve our 2020 energy intensity goal, one important facet of our efforts is continually assessing and improving the efficiency of our operations. Systems and facilities that were state-of-the-art for energy efficiency and performance when first installed can fairly quickly be eclipsed by new technologies and best practices.

When AsiaTrak (Tianjin) Ltd. (ATL), a Caterpillar manufacturing facility based in Tianjin, China, assessed its energy use, facility leaders found that energy costs at the 15-year-old facility represented almost 41 percent of total variable costs burden. The company committed to a comprehensive energy-management project for the plant that would reduce costs and encourage sustainability among its employees.

The project consisted of three main components. First, ATL project leaders focused on technology innovation on energy saving. They retrofitted the building to incorporate more natural light using skylights, allowing over 400 lamps to be turned off during daylight hours; replaced 1,200 incandescent

FOCUS AREA

OPERATIONAL IMPACT

Energy Conservation

(continued)

light bulbs with light-emitting diode (LED) bulbs; and implemented a building energy management system that included automated devices across the facility such as thermostats and steam valves. Finally, because technological improvements are only as good as the people operating the equipment, ATL worked to create a culture of energy efficiency among its employees by setting a facility-wide target for energy saving, weekly energy audits and clearly defined roles and responsibilities for energy use at each workstation. By encouraging every employee to suggest energy-efficiency improvements and creating an employee-recognition program, our AsiaTrak facility has made saving energy everyone's job.

The results speak for themselves: In 2015, ATL saved more than \$616,000 in energy costs and avoided more than 6,900 metric tons of GHG emissions. ATL has also received awards and recognition from the local government as a result of its commitment to sustainability performance.

Energy assessments are serving us well in our Advanced Components & Systems Division (ACSD), which employed 10,000 people in facilities around the world. In 2015, the group launched an Environmental Health Process to improve its environmental and health performance, following the successful creation of a broad Global Safety Process in 2012. Energy assessments were a key component of this planned multi-year project. By conducting in-depth analyses of facilities – each one lasting two to three months – the energy assessment teams have empowered leaders at each facility to set common team goals for energy-use improvements, implement low- or no-cost changes to improve energy use, evaluate and prioritize longer term projects and make energy audits an annual event to sustain the gains and drive additional improvement.

The energy assessments ACSD conducted in 2015 identified more than \$650,000 in projected savings from low- or no-cost improvements that facilities plan to implement in the next two years; saved more than \$120,000 by fixing compressed air leaks; and saved \$80,000 in electricity costs by making sure machines that are not being used during off-shifts, weekends and holidays are shut down. ACSD received more than \$20,000 in incentives from internal and external energy-improvement programs in support of the changes they have implemented.

By encouraging every employee to suggest energy-efficiency improvements and creating an employee recognition program, our AsiaTrak facility has made saving energy everyone's job.

Employees at MecTrack, our manufacturing facility in Valsamoggia, Italy, also undertook a series of energy assessments guided by the philosophy that any electricity used without creating value for the company must be eliminated or reduced, while identifying improvements that require minimal investment. By measuring energy consumption, interviewing their colleagues about best practices, conducting "energy waste walks" and simulating suggested changes prior to implementation, the MecTrack team has been able to save \$100,000 per year in electricity costs by eliminating wasted energy. Encouraged by the success of this project, the team plans to undertake a second-generation project in 2016 aimed at saving even more energy by focusing further efforts on compressed air systems.



FOCUS AREA

OPERATIONAL IMPACT

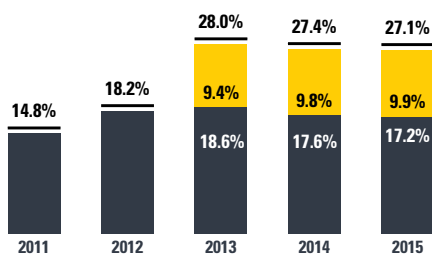
Alternative and Renewable Energy

Across Caterpillar’s global operations, our employees are exploring ways to incorporate alternative and renewable energies to improve our safety, efficiency and sustainability performance. In 2015, 27.1 percent of our electrical energy was from renewable or alternative sources. This includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid-purchased electricity using data obtained from the International Energy Agency.

ALTERNATIVE/RENEWABLE ENERGY¹

Sum of alternative and renewable electrical energy use/total electrical use x 100

Alternative ■ Renewable ■



¹Total includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid purchased electricity using data obtained from the International Energy Agency.

In Mannheim, Germany, a team at our Caterpillar Energy Solutions facility – which has 140 years of experience in designing and manufacturing engines and generator sets – has developed a sustainable way to power the facility with heat and electricity that would otherwise be wasted. The goal was to reduce the electricity and heat purchased from the grid to zero by implementing a combined heat and power system. In addition, the existing test beds were modified, by adding alternators, so that they convert the waste heat into electricity. The facility is now able to use that generated electricity to power not only its operations, but also the test beds themselves, while still generating enough surplus electricity to sell back to the electric grid. To guarantee the smooth operation, an energy management system has been implemented which proactively coordinates the test beds to ensure that no gaps in supply occur. In recognition of Caterpillar Energy Solutions’ success in reusing waste heat and generating energy, the facility earned an award from the city of Mannheim in 2015 as one of the outstanding environmental efforts by large enterprises operating in Mannheim. By selling this alternative energy to the grid, Caterpillar Energy Solutions is also contributing to the Mannheim city goals to increase energy awareness of citizens and improve efficiency in energy provision. Caterpillar Energy Solutions has thus proven that sustainability and productivity are complementary.

In 2015, 27.1 percent of our electrical energy was from renewable or alternative sources.



FOCUS AREA

OPERATIONAL IMPACT

GHG Emissions Reduction

Through 2015, Caterpillar has reduced GHG emissions intensity from our facilities by 32 percent compared to our 2006 base year. From 2014 to 2015, our absolute GHG emissions were reduced by 7 percent. In 2015, several facilities stood out for the success of their efforts in reducing their GHG emissions year over year.

At our Grimbergen Distribution Center (GDC) in Belgium, a team of employees undertook a number of improvements to reduce GHG emissions from the center's daily operations, which together cut GHG emissions by 577 metric tons. Among the solutions the team implemented were optimizing heating in the office and warehouses, using solar panels that generate as much as 60 percent of the facility's electricity needs and consolidating three warehouses into one facility to reduce vehicle miles traveled by nearly 60,000 kilometers (37,300 miles) per year.

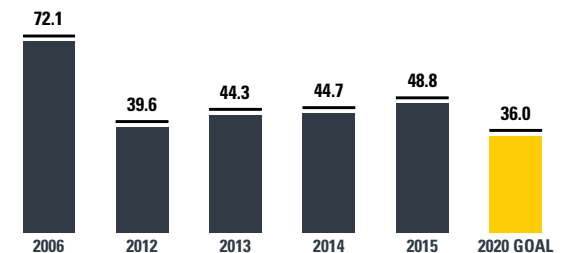
In Japan's Sagami Province, a team at our Advanced Components & Systems Division facility upgraded the 17-year-old steam boilers used to provide heat and power to the building. During the upgrade to more efficient equipment, the team also right-sized boilers to match the machines they power. They strategically located boilers as close to the equipment as possible to reduce waste and used heat that would otherwise have been wasted to warm water at product testing areas. Altogether, these improvements are expected to save more than 1,200 metric tons of GHG emissions annually.

Our Xuzhou, China (CXL) facility houses a number of shot blasting machines used to clean, polish and strengthen metal parts, which consume a great deal of energy. In order to meet engineering requirements, parts need to be processed twice, resulting in twice as much energy being used. To reduce the energy consumption of the machines, the facility made two key improvements, both requiring modifications to the internal programming controller of the shot blasting machines. First, a pause was enabled for positions which required additional shot blasting, thus allowing the parts to be processed in one pass and meet the surface specifications needed for painting. Second, the operation time of the motors was adjusted to allow variable loading, thus saving power and reducing the consumption of steel shot. With these modifications, the time required for shot blasting parts is reduced from 25 minutes to 17.5 minutes. Further, over 560 Mwh of power is saved annually, equal to a reduction of over 400 metric tons of CO2 equivalent emissions in 2015. Based on this successful implementation, the facility is seeking to replicate these improvements to additional shot blasting machines in 2016.

Finally, a team at our facility in Monterrey, Mexico, remodeled four buildings at the facility, adding skylights and translucent wall panels, to maximize the natural light available to employees during the daytime, and to be able to turn off some of the 1,600 lights that previously were required to operate 24 hours a day. After the remodel, electricity use at the four buildings dropped by nearly 50 percent and GHG emissions fell by about 2,000 metric tons per year.

GHG EMISSIONS INTENSITY¹

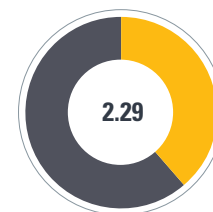
Absolute metric tons of CO2e/million dollars of revenue



¹ GHG emissions intensity reduction goal is based on our combined Scope 1 (direct) and Scope 2 (indirect, market-based) GHG emissions using a 2006 baseline year. Likewise, total absolute GHG emissions are a sum of Scope 1 and Scope 2 (market-based) emissions.

TOTAL ABSOLUTE GHG EMISSIONS

Million Metric Tons



- 0.89 million metric tons Scope 1 GHG emissions (direct emissions)
- 1.40 million metric tons market-based Scope 2 GHG emissions (indirect emissions from purchased electricity, heat or steam)

1.45 million metric tons location-based Scope 2 GHG emissions²

² Location-based Scope 2 GHG emissions are provided in accordance with the GHG Protocol updated Scope 2 guidance.



FOCUS AREA

OPERATIONAL IMPACT

Water Management

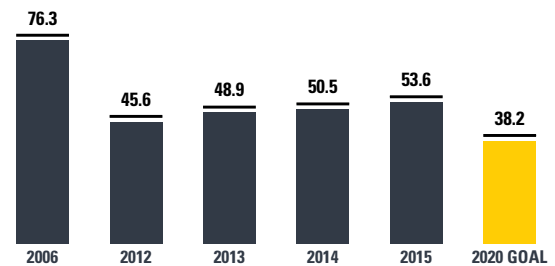
The scarcity of water resources is an issue that crosses cultures, geographies and industries. Today, water scarcity affects around 700 million people, and current trends indicate the problem will escalate. By 2025, two-thirds of the world’s population could be living in water-stressed regions. The implications are so significant that world leaders consistently rank water crises as one of the top risks facing the global population. While our manufacturing operations are not as water-intensive as those of other industries, we nonetheless recognize the far-reaching economic, social and environmental implications that water scarcity may have in the future – and have taken steps to reduce our consumption.

We continue to implement conservation strategies that reduce water use in our operations, explore water-treatment technologies, introduce water-recycling processes at new and existing facilities and train employees about water resources to raise their awareness of the issue. Through 2015, these types of efforts have reduced water consumption intensity, the measure of water consumption normalized by revenue, at our facilities by a total of 30 percent from our 2006 base year intensity. Our 2015 absolute water consumption, including non-contact cooling water from foundry operations, was 3.82 billion gallons of water, a reduction of 12 percent from the previous year.

Around the world, Caterpillar facilities are taking water scarcity and water management seriously, with results that highlight the scale of positive impact that our sustainability work can have. In Illinois, for instance, employees at our East Peoria campus were experiencing increased process equipment maintenance and water quality issues as a result of an aging process water system that draws in water from the Illinois River. When a team tackled the challenge of reengineering and optimization of the process water system, the campus was able to save nearly 100 million gallons of water per year.

WATER CONSUMPTION INTENSITY^{1,2}

Absolute thousand gallons of water/million dollars of revenue



¹ Data prior to 2015 has been restated due to data updates realized from improved accuracy.

² Water consumption intensity does not include non-contact cooling water from foundry operations.

FOCUS AREA

OPERATIONAL IMPACT

Water Management

(continued)

Aligning with Caterpillar Vision 2020, our operations in Batam City, Indonesia, implemented in 2015 a Zero Discharge process for treating and reusing all of the facility’s wastewater. After sending the facility’s wastewater through sewage and effluent treatment plants on-site, as well as a reverse-osmosis filtering system, the Caterpillar team is able to reuse the water for the campus’s landscaping. In a region that is suffering from a prolonged drought, Caterpillar Batam’s Zero Discharge success is saving more than 1 million gallons of water per year, enough to provide water for a local family of four in Indonesia for 24 years.

Water scarcity is also a growing concern in India, with more than half of the country already facing high to extremely high water stresses. At Caterpillar India in Hosur, in the water-stressed state of Tamil Nadu, the facility’s sustainable development council has concentrated on water conservation and management for a number of years to keep our facility’s demand in line with available resources. In 2015, a team in Hosur completed a rainwater harvesting project to replenish the wells that supply the bulk of the facility’s water. The eight rainwater collection tanks, located on roofs and in open yards in close proximity to the wells, have recharged and improved the area’s groundwater supplies, allowing us to continue our operations while also reusing some water for landscaping and reducing soil erosion.



TOTAL ABSOLUTE WATER CONSUMPTION

Billion Gallons

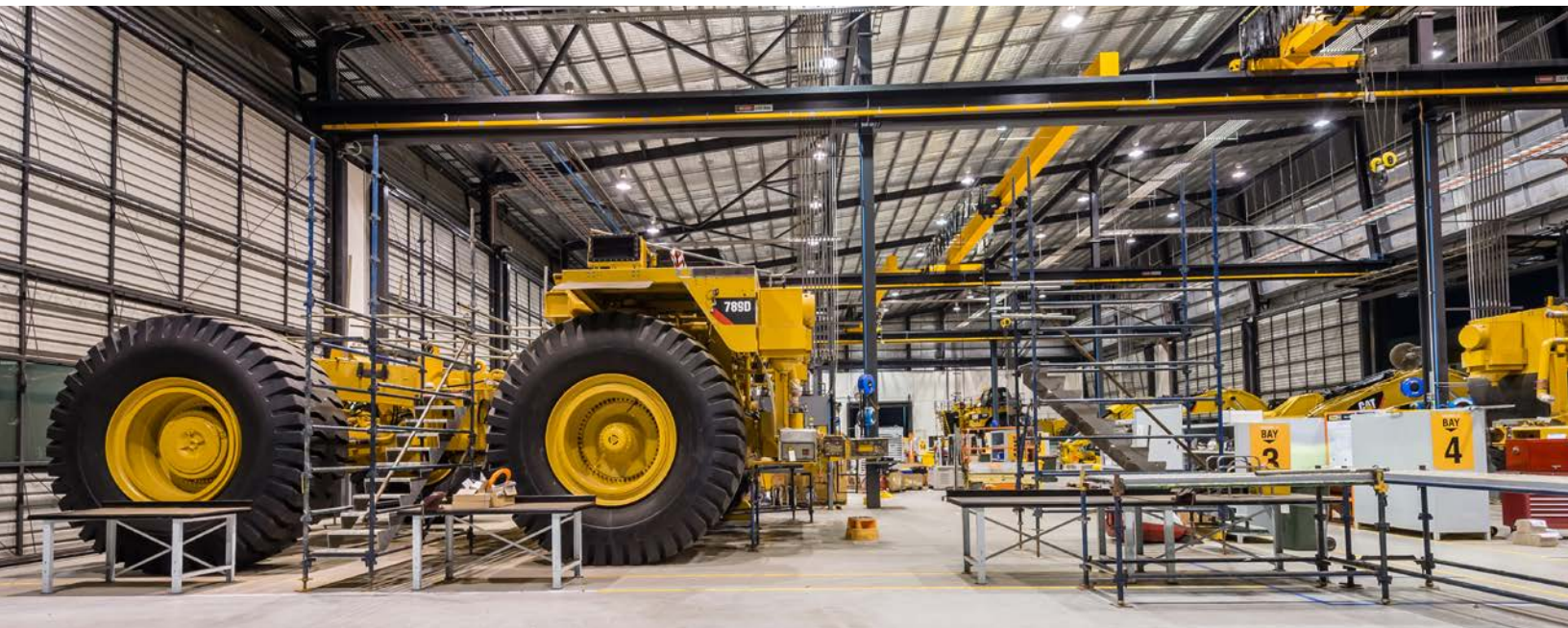


- 1.30 billion gallons non-contact cooling water from foundry operations
- 2.52 billion gallons enterprise water consumption excluding non-contact cooling water from foundry operations

WATER SOURCES



- 34% / non-contact cooling water from foundry operations
- 29% / municipal water
- 22% / groundwater
- 15% / surface water



FOCUS AREA

OPERATIONAL IMPACT

Waste Minimization

Minimizing waste is an important strategy for competing in today's markets. Improving the efficiency of our processes not only reduces costs, but also reduces our utilization of materials, energy, water and land. Our focus on recycling has enabled us to realize an enterprise recycling rate of 90 percent or greater since 2009. Two years ago, we transitioned from a focus on percent recycled to a new goal that is focused on reducing all by-product materials to minimize waste.

By-product materials are generated as waste materials of our production processes. When materials are generated, we focus on remanufacturing, rebuilding, reusing and recycling. The use of the term by-product materials in our 2020 aspirational goal reflects our focus on minimizing waste and effectively managing all that remains. Accordingly, we focus on by-product material reduction strategies that are associated with improved efficiency and quality measures, as these offer the greatest opportunity to enhance cost competitiveness and reduce the potential for short- and long-term impacts.

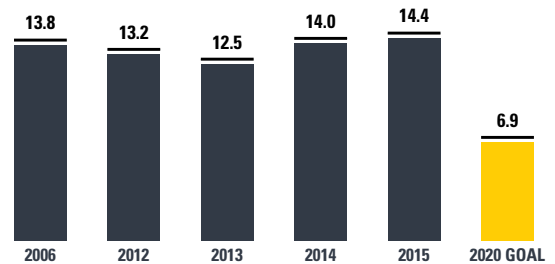
In 2015, we generated a total of 676,000 metric tons of by-product materials, with 90 percent of those materials recycled. Our by-product materials intensity increased 4 percent from our 2006 base year to 2015. However, we decreased our generation of total absolute by-product materials by 12 percent from 2014 to 2015.

By taking a critical look at every phase of our operations, teams have been able to uncover unexpected and high-impact methods to reduce waste while maintaining performance and customer satisfaction. Our undercarriage tracks, for example, have traditionally included a primer coat of paint, followed by a top coat of paint on the finished assembly. The top coat finish primarily serves an aesthetic function – our customers expect that paint to wear off after a period of intensive work-time. Our excavator and undercarriage teams formed a cross-functional team from the U.S., China and Japan that set out to provide a lower cost undercarriage paint solution with a lower environmental impact.

The team conducted side-by-side tests to compare undercarriage tracks that received only a primer coat of paint with tracks that received the primer coat and top coat of paint and found that the benefits of a top coat did not outweigh the costs and waste of providing it. The team then worked with the paint manufacturer to formulate a primer paint that had the performance of a primer, along with the appearance of a top coat finish. By eliminating the application

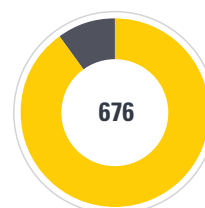
BY-PRODUCT MATERIALS INTENSITY

Absolute metric tons of by-product materials/million dollars of revenue



BY-PRODUCT MATERIALS

Thousand Metric Tons



● 90% / recycled
● 10% / disposed (sent to landfill or incinerated)

FOCUS AREA

OPERATIONAL IMPACT

Waste Minimization

(continued)

of that top coat of paint at our Xuzhou, China (CXL), and Japan (CJL), excavator facilities, the process will save Caterpillar an estimated \$3.8 million per year while eliminating the use of tens of thousands of liters of paint – about 40 percent of which was wasted as overspray. This measure also eliminates the need for facilities to dispose of the hazardous waste from paint overspray and waste paint.

Our team in Desford, England, identified and solved another wasteful aspect of the paint process: disposable plastic caps and tubes used to keep paint out of equipment bores and threads. While EPDM, or synthetic, rubber was the most affordable material from a pure cost perspective, it presented a number of waste and emissions challenges. As a single-use material, discarded EPDM waste averaged 35 metric tons to landfill each year. Additionally, the rubber was manufactured in China and shipped to England, with a correspondingly high GHG impact. A team at Desford sought out more sustainable options and settled on silicon as a durable, reusable replacement.

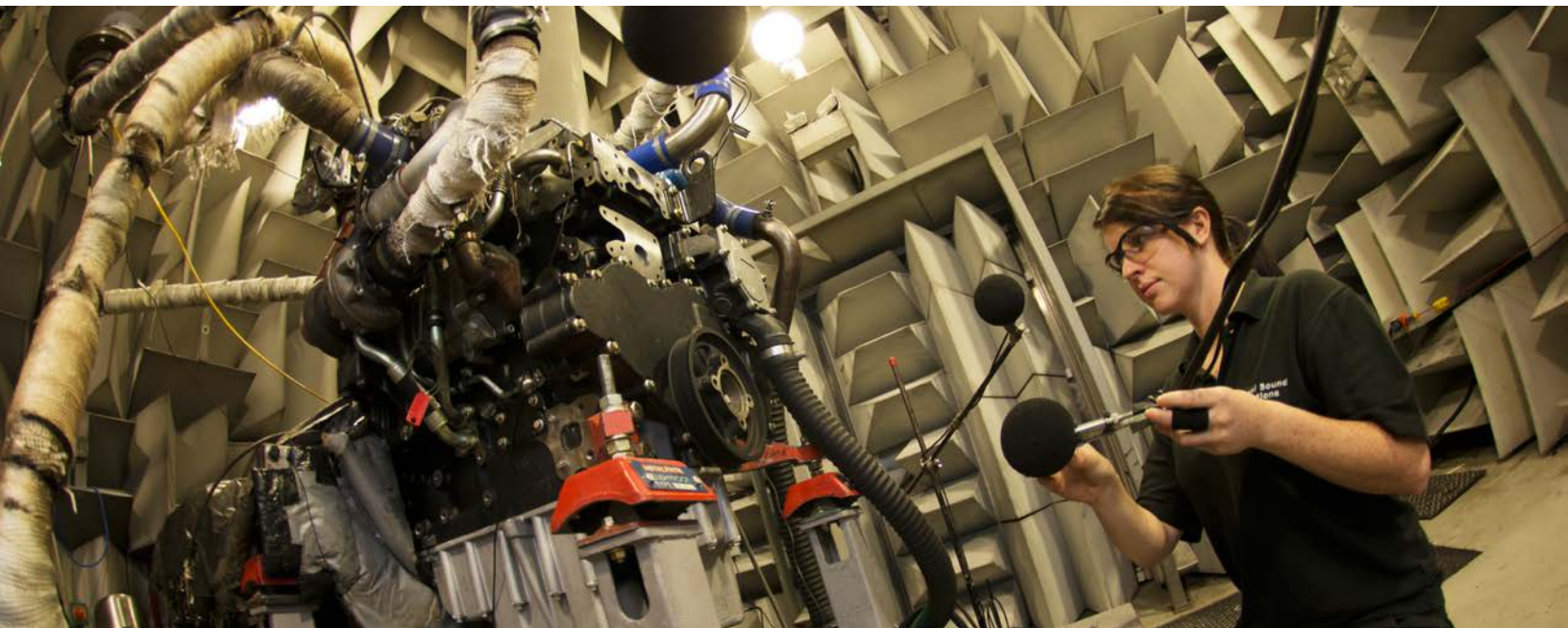
Sourcing silicon from Germany instead of EPDM from China has cut shipping emissions by 95 percent.

Despite requiring the creation of new systems, including sandblasting machines to clean the silicon masking and automated systems to track usage and order new masking when supplies are low, replacing EPDM rubber has had a significant impact on waste at the facility. Sourcing silicon from Germany instead of EPDM from China has cut shipping emissions by 95 percent. In addition, using each silicon masking set 30 times has reduced landfill waste from 34.8 metric tons per year to just 2.4 metric tons and cardboard needed to ship the masking by 93 percent.

A similar mindset came into play in Hosur, India, where our team took Vision 2020 to heart when approaching shipping waste. The packaging for finished products out of our Advanced Components & Systems Division (ACSD) facility was traditionally non-reusable wooden crates and boxes – materials that contributed significantly to the environmental impact of the facility. A team explored the possibility of creating reusable steel packaging to replace single-use wood materials by using 3D modeling to optimize the space used by the new packaging. After a successful pilot project shipping products from Hosur to North Carolina, our United Kingdom and Belgium facilities joined the initiative, and Hosur rolled out the new steel packaging on a large scale. In addition to eliminating 1,700 tons of wood use per year, the project is saving more than \$900,000 per year in materials cost, and the design of the new steel packaging increases our shipping efficiency by more than 30 percent through better stacking and efficient sizing.

While the aforementioned examples illustrate how we address reducing and reusing materials, a project completed this year in Decatur, Illinois, showcases the power of recycling, and how starting small can lead to bigger impacts. In late 2014, the facility rolled out a recycling plan to collect plastics, aluminum and paper on the shop floor. Prior to creating this plan, recycling at this 2,100-employee facility was not standardized and required employee volunteers to monitor recycling bins and deliver materials to recycling pick-up zones. After conducting a site survey and developing work and safety plans, the facility gradually distributed recycling containers across the facility's buildings. After six months, the facility collected almost 6,000 pounds of recyclables, including cans, papers, plastic bottles and plastic zip-ties. The cash savings from landfill fees, as well as rebates from recycling the materials, will be directed to the Decatur facility's charitable contribution fund.

Caterpillar's Morton Parts Distribution Center was a winner of the 2015 Illinois Governor's Sustainability Award. The award recognized several energy, water and waste reduction projects that had been implemented at the Center.

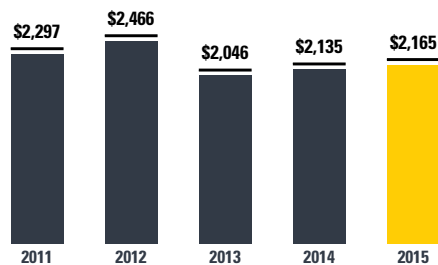


FOCUS AREA

PRODUCT STEWARDSHIP

RESEARCH AND DEVELOPMENT EXPENSES

Dollars in millions



Product stewardship covers the full lifespan of our equipment from the supply chain, to the customer's job site, to remanufacturing. This means taking active steps to reduce potential environmental, health and safety impacts, as well as optimizing operational quality and efficiency throughout the life of the product. We accomplish this in numerous ways, including engineering products to eliminate hazardous substances, utilizing more sustainable energy sources and/or extending a product's life through the use of remanufactured parts or rebuilt machines. Caterpillar also works with customers and distributors to encourage the proper disposal or recycling of end-of-life materials.

Wherever possible, we keep resources in the Caterpillar value chain through a circular flow of materials, energy and water. Our focus on developing better systems optimizes our use of resources, maximizes the total life cycle value of our products and minimizes the cost of ownership for our customers. Viewing our equipment through a total life cycle lens allows us to make sustainable progress for communities, the environment and the economy.

Caterpillar makes management and technical expertise available to regulatory bodies in advisory roles and provides technical assistance as new product standards are developed. These activities include participation, membership and leadership roles in organizations such as the International Organization for Standardization (ISO); industry associations; membership in governmental and nongovernmental delegations to international bodies such as the International Maritime Organization; European Union industry expertise panels; and federal advisory committees chartered under the U.S. Environmental Protection Agency.

Innovation Management

Our Technology Strategy establishes the foundation of Caterpillar's product development innovation. Our strategy includes four themes – Energy and Transportation, Machine and Machine Systems, Automation and Enterprise Solutions and Factory Technology Solutions. Each theme includes customer-focused goals that serve as targets against which progress can be measured. This effort allows us to gain insights into the voice of the customer for our products and assess trends and

Standards Harmonization

Industry consensus standards, including those for visibility, rollover protection structures, braking and sustainability, apply to earthmoving equipment. We are involved on an international level to develop and update global standards through the International Standards Organization (ISO) and chair the technical committee for earthmoving machines. Our global standards and regulations team works closely with organizations like the ISO to enhance machine safety standards worldwide. Caterpillar also provides input to regulatory agencies to help ensure the smooth introduction of new technologies.

FOCUS AREA

PRODUCT STEWARDSHIP

(continued)

impacts they may have on our customers and business. Research activities currently underway within these areas include efforts to reduce customer owning and operating costs, enhance safety, reduce greenhouse gas emissions, increase product reliability and improve productivity.

The technology strategy is governed through a multi-tiered council composed of leaders from all areas of the business, from the executive office level to engineering and technical managers. One responsibility of the council is to ensure consistent and sufficient funding of Caterpillar's technology investments.

While it is important to innovate and explore many new ideas, our technology readiness level process, a consistent framework and language for developing robust technologies, ensures that only those technologies that can be integrated into new products and provide customer value move forward in each stage of the development process. Through ongoing execution using the technology readiness level process in 2015, 33 technologies were transferred from research into New Product Introduction programs.

In 2015, Caterpillar was awarded the Commercial Application of the Year, a Platts Global Energy Award, recognizing the Caterpillar Propulsion Twin Fin technology for increasing efficiency, business advantage and innovation.

We also encourage and recognize innovation through our Chairman's Award process, with recognitions focused on Emerging Innovations, Delivered Innovations and Process/Business Innovations. Each project recognizes teams for new product and process solutions that create a significant positive impact on our customers and our business.

Virtual Bulldozer Testing for Faster, Smarter Innovation

The process of creating innovative products for our customers often requires us to innovate our own practices. One of the forward-looking projects under development is the creation of Semi-Autonomous Tractor Systems (SATS), which will enable one operator to control multiple dozers simultaneously. With more than 100 employees currently developing this system – including more than 30 in software development – access to our complete simulator (test bench) had become a bottleneck to progress on launching SATS. However, the primary option we had for expanding our testing platform involved building an additional full test bench, which includes a full suite of networked computers, a full-time engineer to manage the computers, access to three Cat® D11 tractors in our Tucson Proving Ground, and the associated fuel consumption, maintenance and staff to manage those tractors. Such a significant expansion carried a high financial cost, required machine and fuel usage and also provided more capacity than our team would need for the long term.



A team of engineers from our Advanced Components & Systems Division located in Mossville, Illinois, offered an alternative: by creating a series of "lite" test benches, the SATS developers would be able to spend more time in the software test environment using virtual tractors, while eliminating the need to create a full test bench. These benches are different from most test benches in that they test systems that span multiple machines and site level controls. Each bench cost about \$30,000 to build, an attractive alternative to a traditional \$500,000 full-scale bench. Although the team was initially hesitant to commit to virtual testing, after the first "lite" test bench was completed, the original benefits became clear – as well as a number of unanticipated benefits – and demand for lite benches quickly grew.

The SATS team now has access to seven lite test benches, which have lived up to the team's expectations for low-cost, full-featured test environments. Additionally, our engineers found that the process of testing software on lite benches helped to catch more errors during early testing, which makes the full test using live dozers significantly faster and more efficient. The virtual testing benches have helped increase our software developers' engagement by letting them see more of the full life cycle of the product and being able to directly affect the end product through the design decisions they adopt early. All told, the lite test-bench project has saved an estimated \$5.4 million in expenditures and saved as much as 1,000 gallons of diesel fuel used per day of physical testing in Tucson.



FOCUS AREA

PRODUCT STEWARDSHIP

Customer Safety

Caterpillar's safety culture extends beyond our internal operations to include the safe operation of our products in the field, as well as the safety and health of all individuals who come into contact with Cat® products. This commitment encompasses the design and engineering of our products and extends to operator training and certification, solutions for the job site and the tools and resources to improve the workplace culture which are coordinated through Caterpillar Safety Services. For full details about how Caterpillar Safety Services meets customers at any point of need, visit cat.com/safety.

The Caterpillar Zero-Incident Performance (ZIP™) Process is a program used internally and with customers to focus safety management on leading indicator activities and incident prevention. With the ZIP Process, employees from all levels of an organization, from the front line through management, are actively involved in and accountable for safety. It begins when leaders commit to making a culture change, whereby safety becomes an organizational value equal to productivity, quality and customer service. Then employees lead the transformation by improving or creating safety processes, clearly defining the role each employee will play in making the process successful. Caterpillar has discovered that when the employees who are closest to job hazards have the opportunity to personally build workable safety processes – and are appropriately recognized for their efforts – a culture of safety excellence takes shape and incident rates go down.

Caterpillar's commitment to product safety is embedded in our product development process. This safety commitment begins at the first stage of the new product introduction (NPI) process and involves such tasks as identifying opportunities to integrate new technology in order to enhance product safety. Potential product hazard identification is a critical element of each stage of the process, right up to the disciplined product validation that is completed prior to market introduction.

Our decades of expertise in reducing the hazards posed by fatigue and distraction led to the development of in-cab and wearable technology-enabled solutions that provide heavy equipment operators the power to see, mitigate and manage risk posed by fatigue and distraction. These technologies are most effective when used as part of a robust Fatigue Risk Management System (FRMS) that holistically incorporates a number of layers of protection against fatigue. This process engages our customers' workforce and motivates employees to embrace fatigue-minimizing changes in a way that boosts morale and provides metrics to measure continuous improvement in safety performance. The FRMS includes on-site fatigue assessments, employee training, technology change management, around-the-clock monitoring, and analyzing and optimizing schedules and rosters to minimize safety risks.

FOCUS AREA

PRODUCT STEWARDSHIP

Customer Safety

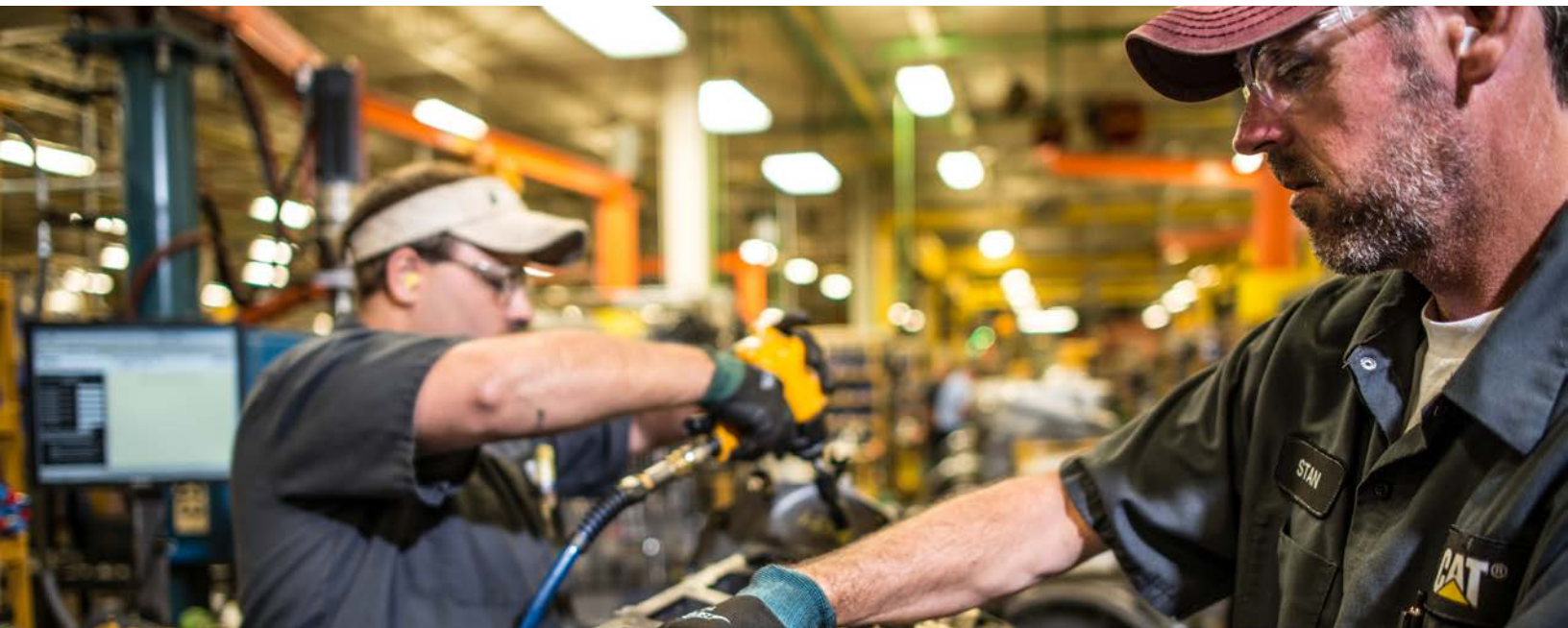
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In 2015, Caterpillar Safety Services worked with the Vigo Coal Company to complete a trial of our Driver Safety System (DSS), a technology-enabled fatigue and distraction monitoring solution for mining and construction applications. The DSS examines the pervasiveness of operator fatigue in daily heavy equipment operations. By using in-cab technology for one week, we recorded 42 separate fatigue events, some of which involved operators falling asleep for five to six seconds at a time. Our team recommended a number of tools to address these risks, including:

- Cat® Smartband, a wrist-worn device that measures sleep quantity and quality;
- Fatigue Avoidance Scheduling Tool (FAST), developed by the U.S. military, that helps supervisors model different shift schedules to determine and avoid fatigue vulnerabilities;
- In-cab cameras with patented eye and head tracking algorithms to detect operator fatigue and distraction in real-time.

These technologies are just one prong of our new solution that gives customers visibility to their safety risk exposure, which can vary greatly based on a number of factors. Once customers are armed with the details and data these technologies provide, Caterpillar consultants work with them to implement organizational changes needed to improve operators' fitness for duty every time they climb into a cab.





FOCUS AREA

PRODUCT STEWARDSHIP

Circular Economy

Caterpillar strives to provide customers with quality equipment that provides the best economic proposition for their business. Our remanufacturing (reman) and rebuild businesses provide customers not only with an immediate cost savings, but also help extend life cycles and use materials more efficiently.

Remanufactured Products and Rebuilt Products

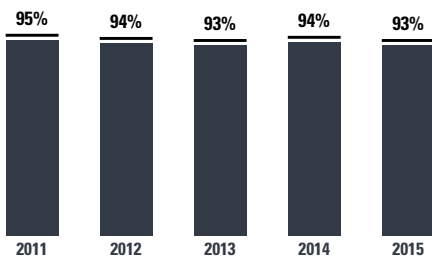
The Caterpillar Sustainable Solutions, Solar Turbines and Progress Rail Services remanufacturing programs provide customers with lower-cost products, shorter downtime and quick, dependable service options.

↓15%

Change in Reman Business
from 2013 base year¹

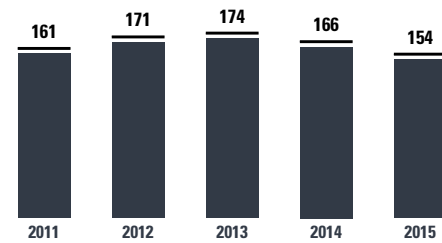
REMAN END-OF-LIFE "TAKE-BACK" PERCENT¹

Actual end-of-life returns/eligible returns x 100



REMAN END-OF-LIFE "TAKE-BACK" BY WEIGHT¹

Millions of pounds of end-of-life material received



↓3%

Change in Rebuild Business
from 2013 base year

¹ Data does not include Progress Rail, Electro-Motive or Solar Turbines.

FOCUS AREA

PRODUCT STEWARDSHIP

Circular Economy

(continued)

Rebuild programs increase the lifespan of equipment by providing customers with product updates for a fraction of the cost of buying a new machine. Rebuild programs include Cat® Certified Rebuilds, component overhauls at Cat® dealers, Solar Turbines rebuilds and Progress Rail Services rebuilds. A complete Cat Certified Rebuild includes more than 350 tests and inspections, automatic replacement of approximately 7,000 parts and a like-new machine warranty. In addition, trained dealer service professionals perform this work using genuine equipment and parts. Caterpillar provides information, data, training and service tools to help dealers make the most appropriate decisions on which parts to reuse in order to achieve expected longevity of rebuilt components. Reuse of components helps us use materials and energy more efficiently.

The remanufacturing and rebuild programs allow customers to maximize the built-in value of their equipment by:

- Ensuring maximum productivity
- Increasing reliability and equipment uptime
- Ensuring cost-effective performance
- Receiving a like-new warranty
- Increasing the customer's return on their investment
- Providing the customer with a variety of repair options to meet their service needs
- Providing the customer with a higher resale value
- Providing the lowest total owning and operating life cycle costs
- Preserving the majority of energy and materials required to make the original component or machine

Given the significant role that remanufacturing and rebuild operations play in our sustainability initiatives, we created a new customer goal in 2013 around this area of the business. Using 2013 as a base year, our goal is to grow remanufacturing and rebuild business sales by 20 percent by 2020.

Increasing Global Access to Remanufactured Products

While global customers have driven demand for remanufactured products, not all customers can benefit from the significant cost and efficiency savings that Cat® Reman products deliver due to import and export challenges. Certain countries – mostly in developing markets – fail to recognize the value of remanufactured goods for the environment and their national economies and place trade barriers around remanufactured products.

There are typically two types of trade barriers. A tariff barrier might include excessive fees or taxes levied by a certain country that significantly increase the customer's cost of choosing a viable remanufactured product. On the other hand, a nontariff barrier might be customs officials categorizing remanufactured goods as "used" goods, which cannot be imported under any circumstance or can only be imported after complying with special inspection, certification, licensing or other onerous requirements. Similar barriers are often faced when customers seek to export their cores and return them to Caterpillar in exchange for a remanufactured engine or component. With the durability, performance, quality and a warranty that is the same as all other Cat® engines and components, Cat Reman products should not be treated as "used" goods. Indeed, this fact has been acknowledged in a number of free trade agreements and other multinational statements such as the Asia-Pacific Economic Cooperation (APEC) Pathfinder Initiative. Countries participating in the global economy should treat remanufactured products the same way new goods are treated.

Caterpillar continues to work with policymakers around the globe to open markets and expand remanufactured options for our global customers, providing them with cost-effective, sustainable options for extending the life of their existing equipment. The company informs and educates government regulators around the world on the sustainable benefits of Cat Reman products.

Recognizing Caterpillar's Commitment to the Circular Economy

Caterpillar has long been dedicated to the most efficient use and reuse of materials – what is sometimes referred to as "The Circular Economy." Because of that long commitment, we are pleased to be recognized as runner-up in the 2016 Circular Awards. Caterpillar was nominated to receive the Accenture Award for Circular Economy Multinational, in recognition of how we have incorporated circular economy principles across our value chain, including product development, human resources, supply chain, dealer network and customer relationships. Our remanufacturing program in particular, was singled out as an innovative implementation of circular-economy principles.



MATERIAL RECOVERY

Caterpillar encourages circular economy principles through our remanufacturing and rebuild businesses. This starts with durable products, many designed to be rebuilt multiple times. Through our remanufacturing and rebuild programs, components and machines are overhauled, rather than simply repaired or replaced. Reuse of parts, still within factory specifications, reduces waste and minimizes the need for additional raw materials necessary to produce new parts. This system is where Caterpillar is making some of its greatest contributions to sustainable development – keeping nonrenewable resources in circulation for multiple life cycles.

For more than 40 years, Caterpillar's remanufactured products have provided same-as-when-new performance, reliability and warranty at fraction-of-new costs, as well as availability that gives customers more options at repair and overhaul time.

An excellent example of how our reman programs deliver value to customers can be found in the island nation of Dominica. There, almost all energy is produced using a combination of gas, diesel and fuel-oil generators. Rimco, the Cat® dealer in the Eastern Caribbean, has put a priority on offering remanufactured parts and components to the local electricity companies and customers. Remanufactured parts are more affordable, helping to manage operating costs, and are more readily available on the market, allowing faster turnaround time in the event of emergency repairs.

For more than 40 years, Caterpillar's remanufactured products have provided same-as-when-new performance, reliability and warranty at fraction-of-new costs, as well as availability that gives customers more options at repair and overhaul time.



For instance, a local energy company uses 11 Cat® generators – primarily Cat® 3516, Cat® 3608 and Cat® 3612 engines – to supply the majority of the island's electricity. During 2015, two of the main generators needed emergency replacement parts, reducing the backup power available and increasing the risk to a disruption in energy supply to the island. Rimco provided remanufactured parts to the energy company, ensuring they could keep the power flowing without interruption.

In addition to giving our customers lower operations and maintenance costs, using remanufactured equipment gives Cat® dealers like Rimco a competitive advantage and has helped the 35-year-old company meet the needs of its customers across the Eastern Caribbean efficiently and affordably.



FOCUS AREA

PRODUCT STEWARDSHIP

Customer Sustainability

Caterpillar helps our customers improve their sustainability performance. As customers increasingly demand greater energy efficiency, we are further motivated to help them reduce their energy use and, corresponding greenhouse gas (GHG) emissions. We collaborate with customers to deliver customized solutions that help optimize energy use and provide training for customer operators on how to use our equipment more efficiently.

18%

2015 reported sales and revenue derived from products, services and solutions that demonstrate an improved sustainability benefit over existing offerings.

Working with our customers to minimize their energy use and GHG emissions increases the value that Caterpillar provides to our customers. By building equipment and providing solutions that use less energy and enable more efficient operations, we lower the cost of operating and owning equipment that is vital to our customers' businesses, boosting profitability and performance.

Caterpillar provides our customers' technology solutions and more sustainable products, helping our customers reduce their own emissions.

Technology Solutions

As the world becomes ever more connected, and our technologies more sophisticated, we are able to create solutions to help the world operate in ways that would not have been conceivable even 15 years ago. One example of this is our ongoing partnership with Uptake, a data-driven analytics and services firm. In 2015, Caterpillar completed a minority investment in Uptake to jointly develop an end-to-end platform for predictive diagnostics to help our customers monitor and optimize their fleets more effectively. This investment developed from early successes of a locomotive project between Uptake and Electro-Motive, a Caterpillar subsidiary.

Our IntelliTrain™ locomotive monitoring and prescriptive repair platform is one of the first tools to emerge from this partnership. Currently in the midst of pilot tests, IntelliTrain offers rail operators instant, automatic monitoring of every one of its locomotives to prevent on-track failures by quickly and accurately diagnosing malfunctions. IntelliTrain also gives rail operators the power to maximize equipment utilization by identifying how much of their rail fleets are in use or available for use. These tools combine to make rail shipping and rail travel more economically and environmentally sustainable for our customers.

Caterpillar's RemoteTask remote control system for Cat® D Series skid steer earned a 2015 Innovation Iron Award from Compact Equipment.

FOCUS AREA

PRODUCT STEWARDSHIP

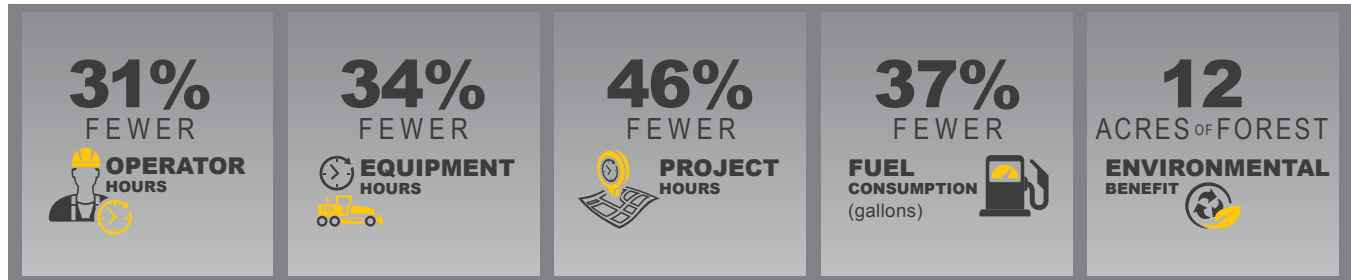
Customer Sustainability

(continued)



Railways are not the only application gaining efficiency thanks to Caterpillar technologies. In 2015, we demonstrated how Cat® Connect technology is transforming roadway construction. In a side-by-side study, we compared two distinct road-building processes – 1) traditional road building, most commonly used today, and 2) a technology-focused approach, using Cat Connect technology. Cat Connect technology includes on-machine hardware and software along with off-machine solutions to automate and facilitate construction. Beginning with the use of an unmanned aerial vehicle (a “UAV” or drone) for surveying and monitoring the project’s progress throughout the earthmoving, grading and paving phases, Cat Connect dramatically reduces the costs and impacts of road building. A three-mile stretch of road built with the help of Cat Connect technology requires 37 percent less fuel and takes 46 percent less time, all while offering a safer working environment for the on-site workers. The fuel reductions also result in CO2 emission reductions, equivalent to the carbon sequestered by about 12 acres of forest according to the U.S. Environmental Protection Agency. In short, Cat Connect technology and services dramatically reduce the costs and impacts of road building. In fact, customers will typically expect to realize their incremental investment in the technology payback in less than one year. Technology enables increased profitability, efficiency and productivity. We are excited to enable Cat Connect technologies and services in order to better serve our customers.

Benefits demonstrated in this project:



We are bringing these same technological improvements to our mining customers, improving their safety performance as well as their efficiency. In Western Australia, the Fortescue Metals Group has become the first company to fully implement the Cat® MineStar™ autonomous mining system in an effort to increase productivity and improve safety at its Solomon mining operations. Fortescue is using Caterpillar technology to help its mines manage everything from fleet assignment and condition monitoring to remote and autonomous control. Fortescue started with six autonomous Cat® 793F hauling trucks in 2013 and as of year-end 2015 is now running 41 autonomous trucks on-site, with a plan to move to 70 autonomous trucks. At a recent Fortescue Investor Presentation day in 2015, they presented results showing a 13 percent improvement in productivity for autonomous trucks over their manned fleet.

The Florida Everglades offer another example of how Cat® equipment gives our customers a leg up on performance and sustainability. Deep in the heart of Florida’s alligator country, highway contractor Dickerson Florida began work on stabilizing 12 miles of canal banks that surround a reservoir providing water to more than 8 million Floridians. On its own, a slope-stabilization project might not have presented many challenges to a seasoned company like Dickerson. But one-third of the project was completely submerged, requiring excavators to be able to see underwater. Using Caterpillar’s GPS-powered AccuGrade™ technology, the excavator operators could maintain consistent grading even when they were working below the waterline and could not see what they were doing. Not only did AccuGrade™ help the project finish ahead of schedule by helping workers improve their accuracy, but it also minimized the amount of time inspectors had to be in the water to confirm the quality of the work.

FOCUS AREA

PRODUCT STEWARDSHIP

Customer Sustainability

(continued)

More Sustainable Products

We work to create innovative new Caterpillar products and solutions that enable better business and sustainability performance; at the same time, we seek continuous improvement on our existing products to meet the same business demands. In the San Diego headquarters of our Solar Turbines division, a team of engineers sought out a replacement material to use in turbines' exhaust diffusers, and struck gold when they discovered CA6NM, a stainless steel alloy originally developed by the U.S. Navy. As a replacement to the high-nickel alloy that is traditionally used in the diffusers, CA6NM is more readily available on the market, more resistant to corrosion and cracking, and significantly easier to manufacture and repair, with a longer service life than existing products. After extensive testing, we began using CA6NM diffusers in some of our Hot End Drive turbines during 2015. When all Solar™ products have shifted to the new diffusers, we will save an estimated \$2.4 million in production costs in addition to the benefit of reducing material usage.



Whether a small part of a turbine engine or an entire machine, our employees are committed to continually improve our equipment. A case in point is the 2015 shipment of our first dual fuel engine for retrofit of Cat® 785C large mining trucks (LMTs). This new engine system can be run on either liquefied natural gas (LNG) with a small amount of diesel fuel, or entirely on diesel, giving our customers even more flexibility in determining which fuel better meets their current needs. Engineers across Caterpillar collaborated to develop the engine powering the Cat 785C LMT as the lead platform to provide dual-fuel solutions to our mining customers. The mine where the Cat 785C LMT is deployed, Simplot's Smokey Canyon Mine in Eastern Idaho, is notable because it is the same mine that first deployed the original diesel Cat® 785 mining truck just over 30 years ago – showing that neither Caterpillar nor our customers ever stop innovating.

As with our mining truck, our Cat® D6K2 finish grading tractor received an upgrade in 2015 that improved performance, while reducing fuel consumption at the same time. A global team from France, the United States, the United Kingdom and India were given the goal to make a smaller engine work with the same performance at the machine level. Together, they developed a number of improvements to the Cat D6K2's powertrain and controls that dramatically cut the machine's fuel requirements with no loss in productivity. The result of all these improvements is that each new Cat D6K2 costs less to build, is 27 percent more fuel efficient in Eco Mode than the Tier3 Cat® D6K model and 37 percent better than our closest competitor.

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Efficiency improvements were also the focus of a team in our Advanced Components & Systems Division in 2015. The team worked with many internal and external collaborators to improve the fuel efficiency of our line of medium wheel loaders. The team focused on four main features of these machines' transmission systems, including the lock-up clutch, oil pump, main relief valve and the Advanced Productivity Electronic Controls transmission control system. The overarching integration of each of these improvements combined to create huge fuel savings. Our customers will save an average of \$2,500 per year in fuel costs, average annual productivity savings of \$5,000, as well as a significant drop in GHG emissions – and Caterpillar is saving more than \$5,500 per year in total costs for each machine. This new generation of wheel loaders is far ahead of our competitors in fuel efficiency, and is an example of how Caterpillar is driving the industry forward in performance and sustainability.



FOCUS AREA

PRODUCT STEWARDSHIP

Job Site Efficiency

Caterpillar recognizes that our customers need to realize the full value of their assets. Our solutions business model is designed to meet that need by going “beyond the iron” to increase asset utilization. Designed and delivered by the Caterpillar Job Site Solutions (JSS) team in partnership with Cat® dealers, these solutions help customers find new and innovative ways to improve their operations and be more competitive in the marketplace. JSS leverages Caterpillar’s financial, technological, application and management expertise to tailor solutions based on the customer’s own needs, typically in the areas of safety, sustainability, equipment, productivity and financials. As a result, every solution is different, scalable and can range from a short-term consulting engagement to a multiyear fleet management and maintenance solution.

Our customers often approach us with a request to improve the financial performance of a job site, but we consistently find that the cost savings unlocked by our solutions team also deliver additional sustainability benefits. For instance, optimizing fleet efficiency not only reduces costs, but it also can determine the maintenance and component replacement needs of individual machines. Better maintenance leads can extend the life of a machine, which, in turn, improves fuel efficiency and avoids the manufacturing and resource-use impacts of purchasing an entirely new machine. The integration of these services is showcasing the three dimensions of sustainability – economic growth, environmental stewardship and social responsibility – for our customers.

In 2015, a pilot program with a large aggregate producer is a prime example. Our customers asked JSS to improve productivity on job sites at two of their mines. We analyzed the job-site data provided by this customer to measure machine performance, material haulage efficiency and equipment life. We also compared performance variance for day and night shift at one of the sites and determined operator productivity could be improved through increased awareness and operator training. As a result, we were able to improve productivity and significantly decrease fuel costs. At one site, we uncovered savings worth more than \$91,000 per year in fuel savings and increased machine productivity by eliminating 69 hours of annual idle time, further saving fuel and labor costs.

Some of those savings came from unexpected places: Reviewing the performance data for each machine on site, the JSS team found two trucks were running at higher than optimal RPM, which through operator training would save nearly 5,000 gallons of diesel fuel each year, including more than 50 metric tons of embedded emissions. Coupled with rebuilding aging equipment and optimizing fleet schedules, the JSS team achieved a 19 percent reduction in operating costs for these sites, including a 34 percent improvement in the fuel efficiency of the operation.

68%

Increase in fleet hours managed by Caterpillar Job Site Solutions (from 2013 base year)

91%

Increase in number of machines covered by services agreements with Caterpillar Job Site Solutions (from 2013 base year)



FOCUS AREA

AN INTEGRATED VALUE CHAIN



Caterpillar is building capability to deliver an integrated value chain. The company that connects its end-to-end business – from customer all the way back through its chain – will gain and maintain industry leadership.

To deliver an integrated value chain we must engineer our value chains just like we engineer our products. It’s an end-to-end approach, encompassing the customer, dealer, product design, logistics and our supply network. When synchronized, Caterpillar maximizes quality, value and speed to the customer.

Our Customer Service Promise

An integrated value chain starts with the customer and it’s more than just gathering customer feedback. It is the deep understanding of the specific features, performance and delivery expectations that are used by our customers in the decision to purchase a Cat product versus the competition. It’s also the first step of how we engineer a value chain.

In early 2014, four product teams piloted the work to redesign Caterpillar’s end-to-end business. By the end of 2015, more than 25 teams have started the journey.

Each engineered value chain is different – just as the businesses they serve are different – but the purpose remains the same, design our chain – like we design our products – end to end in order to maximize quality, value and speed to the customer.

When we apply focus on every aspect of our chain we stabilize our business through the cycles, strengthen our relationship with customers and dealers, increase profitability and ultimately win in the industry.



FOCUS AREA

VALUE CHAIN

Supplier Network

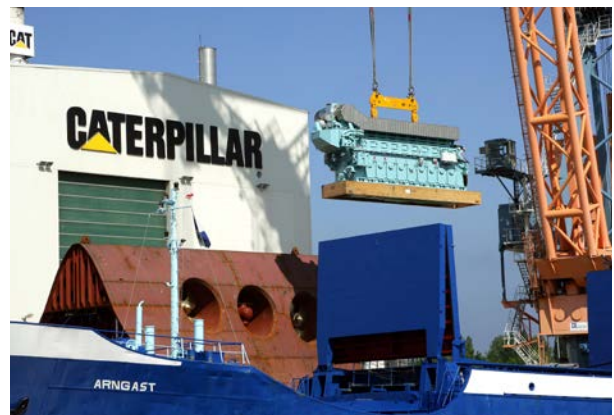
We view our suppliers as an essential link within our value chain and an essential part of our commitment to quality. We look for suppliers who demonstrate strong values and commit to the ethical principles outlined in our Supplier Code of Conduct. We expect suppliers to comply with the sound business practices we embrace, follow the law and conduct activities in a manner that respects human rights.

In 2015, Caterpillar refreshed its Supplier Code of Conduct to add several new provisions, including human rights, innovation and diversity and inclusion. Several other provisions were enhanced, including environmental responsibility and sustainability.

We have a risk management plan that outlines our response to certain risks identified in our supply network. To ensure our impacted suppliers understand our expectations, we request that they respond to our supply network survey or complete a training program. As issues arise, members of our senior management are apprised and suppliers are expected to implement corrective action plans for mitigation or remediation. Any supplier's failure to take corrective actions when required may lead to additional actions, up to and including the termination of our business relationship.

Caterpillar continues to expand the Assurance of Supply Center (ASC) to support our enterprise strategy to manage a world-class supply network. The ASC is a network knowledge service organization and data platform that captures and transforms complex, supply network data from dozens of systems into a suite of simple, but powerful business tools that can be used for every day decisions. Today, thousands of global, internal and external users can monitor supply network performance, drill down to root causes, visualize facility inventory real-time and monitor risks and defects with a few clicks on their tablets or desktops. The centralized visibility to data in the ASC has streamlined communication between Caterpillar and our suppliers, resulting in a dramatic improvement to supplier performance and quality, as well as working relationships. ASC tools have also improved collaboration between work groups, such as logistics and procurement, allowing teams to quickly work together to respond to risks and disruptions (labor disputes, natural disasters, etc.), thereby reducing risk for Caterpillar and our suppliers. New ASC capabilities in network modeling, including nine patent-pending algorithms, make it possible to quickly identify optimal network designs that account for projected geopolitical or economic changes, and then evaluate pros and cons prior to implementation. This technology enables an agile supply network that delivers at the right time and right cost, while reducing waste caused by trial and error or delayed decision making.

Another supply network consideration at Caterpillar is compliance with applicable laws and regulations. Caterpillar works with its suppliers to determine the content in each of the products Caterpillar manufactures or contracts to manufacture. In some instances, Caterpillar is also required to expand its due diligence to determine the origin of certain components. A cross-functional business team develops systems and



FOCUS AREA

VALUE CHAIN

Supplier Network

(continued)

processes for conducting such reviews. For example, systems have been implemented to track the components used to assemble products in the final bill of materials, make inquiries of suppliers and track their responses. Caterpillar monitors metrics that could indicate risks in the supply network. These efforts continue to be important in creating transparency in the supply network.

Supplier Diversity

Diversity within our supply base is important to Caterpillar and we strive to mirror the demographics of the varied markets in which we operate. Our passion for continuous improvement is the driving spirit behind our Supplier Diversity Initiative as we strategically position diverse suppliers (minority-owned small businesses, veteran-owned small businesses and many others) who can provide quality products and services, innovation, cost competitiveness and volume flexibility in support of our business goals.



Our goal is to provide sourcing opportunities to a wide range of diverse business types throughout our enterprise. Seamless integration of these businesses allows for synergies as we assist them in growth and development. In 2015, Caterpillar was again recognized as one of the “Best of the Best” for supplier diversity programs by Black EOE Journal.

A More Sustainable Logistics Network

The Global Supply Network Division (GSND) transportation team moves thousands of supplies and parts around the world to support Caterpillar manufacturing and dealers. In 2015, the transportation team shipped 4.1 million metric tons of parts and machines, managed 690,000 ground shipments and ocean shipments totaling 136,000 twenty-foot equivalent units, and improved our overall on-time delivery performance to over 91 percent across all ocean, air and ground movements. In 2015, transportation improved shipment energy efficiency (GJ/ton-miles) by 12 percent and greenhouse gas emissions intensity (metric tons/ton-mile) by 43 percent, as compared to 2013.

For transportation, sustainability has always been a focal point of how to design shipping networks, optimize transportation modes and configure products for optimal shipping. The group seeks to identify the optimal schedules to increase truckload utilization, which in turn reduces the number of trucks on the road.

Transportation works closely with the packaging teams to determine the best way to stack material on a single truck or in an ocean container. Higher utilization of a single vehicle reduces the number of shipments overall. In one example in 2015, the team reduced 53 metric tons of CO2 emissions, saved 778 GJ of energy and reduced \$57,000 in cost by double-stacking frames for transport.

Going the Last Mile

The last mile of any project, race or journey is often times the most important. At Caterpillar, we’re passionate about the last mile and have developed a strategy to connect this link to the overall value chain.

The last mile is the final step of the journey moving our products from the plant, distribution center or port to the dealer. In the past, this critical process has been completed by our dealers using different transportation processes, vendors and cost structures. However, today we are leveraging the scale and expertise of Caterpillar’s supply network to help our dealers and customers receive their products more efficiently.

Caterpillar now transports product from the production yard to the dealership. Dealers can collaborate with us on when and where they want a machine shipped, check the shipping status online and instantly get information on location and estimated time of arrival.

By including the last mile as part of our overall value chain design, we are delivering products with higher dealer satisfaction, improved delivery performance, visibility and at lower cost.

FOCUS AREA

VALUE CHAIN

Supplier Network

(continued)

A New Approach to Streamlining in Brazil

A team based in our flagship Brazil facility in Piracicaba has begun a four-year effort to make one of our largest facilities more efficient. Rather than following the traditional path of a department-by-department audit to determine savings opportunities, the Piracicaba team mapped the end-to-end costs of operations, for instance measuring the logistics costs for a product that spans ocean shipping through manufacturing, packaging, storing and shipping to customers. By conducting this exercise across the facility's operations, the team has spawned a new mindset about weaving efficiency into every work stream. The project has already created more than \$27 million in savings, including environmental benefits from optimized shipping operations, and expects to increase that in the coming years as the project scales up. The Piracicaba team is also benchmarking their performance with their sister facilities in Brazil to compare and share results and impacts.





FOCUS AREA

VALUE CHAIN

Dealer Network

Our independent dealers serve as a critical link between our company and our customers. We rely on them to collaborate with us in building and maintaining the long-standing customer relationships that have made Caterpillar successful. We value their positive contributions to our reputation and their deep commitment to the customers and communities they serve, and are proud of the outstanding relationships that we maintain with suppliers and dealers through trust, communication and shared rewards.

Cat® branded products and services are distributed through a worldwide network of Cat® dealers (the Cat dealer network), 48 of which are located in the United States and 127 are located outside the United States. The large majority of our worldwide dealers are independently owned and operated, and many of these businesses have been in families for multiple generations. The Cat dealer network brings value to customers through unmatched service, integrated solutions, after-sales support, fast and efficient parts fulfillment and world-class rebuild capabilities. We work with our dealers to provide products, services and support solutions necessary to satisfy customer needs worldwide. Other brands in our portfolio are distributed through their respective channels that optimize customer value in accordance with their brand value propositions.

The Cat® dealer network brings value to customers through unmatched service, integrated solutions, after-sales support, fast and efficient parts fulfillment and world-class rebuild capabilities.

Our distribution model, which has consistently delivered unmatched *local* support, is increasingly measured by *global* standards. The Cat dealer network is one of our biggest competitive advantages, and we take great care to make sure that it continues to uniquely position itself so that our customers succeed into the future. Caterpillar and Cat dealers worked together to define and lay the foundation for a strategy that addresses our mutual challenges and builds the foundation for our next century of progress. This requires a thoughtful transformation within our distribution model, without changing the principles that define our relationship. Together, we have mapped the path forward to achieving the transformation we need around four objectives, collectively known as our “AcrossTheTable” initiative:

- Strengthening the Cat dealer model
- Enhancing customer focus
- Achieving superior economics for Caterpillar and the dealer
- Seizing opportunities while mitigating risks

Our dealers worldwide have been working side-by-side with Caterpillar employees from every area of the company on projects focused on such things as e-business, technology-enabled solutions, service strategy, rental and used equipment strategy and parts logistics. A global team focused on one ideal – ensuring that our distribution network is built for our next century of progress.



FOCUS AREA

GOVERNANCE & ETHICS

Caterpillar’s governance structure provides leadership, accountability and transparency to company business on behalf of our employees and our stockholders. Our corporate governance framework serves the interests of stockholders with the highest standards of responsibility, integrity and commitment. These standards are developed and implemented by our Board of Directors and global management team, who oversee the company’s performance and governance policies.

Caterpillar’s Board of Directors currently has 12 members. This structure enables a diversity of experience without hindering effective discussion or diminishing individual accountability. In 2013, Caterpillar amended its bylaws to require that each director be elected annually by a majority vote. There are currently three standing board committees: Audit, Compensation and Human Resources, and Public Policy and Governance. Each committee, solely comprised of independent directors, has a written charter. Full details on the Board and its committees can be found at <http://www.caterpillar.com/en/company/governance.html>.

Caterpillar has established several corporate governance policies that are intended to reflect Caterpillar’s emphasis on good corporate governance. These include Guidelines on Corporate Governance Issues, Caterpillar’s Code of Conduct, mandatory retirement ages for the Board of Directors and an officer compensation claw back policy. Caterpillar policy also requires 1) former employees of its independent auditors who were senior managers or higher to wait a minimum of three years before becoming eligible for certain management-level positions at Caterpillar, and 2) the rotation of independent audit partners in compliance with the requirements of the 2002 Sarbanes-Oxley Act.





FOCUS AREA

GOVERNANCE & ETHICS

Ethics and Compliance

Caterpillar’s reputation is something we value as much as our products and our customers. In 1974, we introduced our first Code of Conduct. Caterpillar’s current Code of Conduct – Our Values in Action define what Caterpillar stands for and what we believe in, documenting the uncompromisingly high ethical standards that our company has upheld since its founding in 1925. The Code of Conduct helps Caterpillar employees every day by providing detailed guidance on the behaviors that support Our Values in Action – Integrity, Excellence, Teamwork, Commitment and Sustainability. Through our Code of Conduct, we envision a work environment all can take pride in, a company others respect and admire and a world made better by our actions.

Full details on the Caterpillar Code of Conduct can be found at <http://www.caterpillar.com/en/company/code-of-conduct.html>.

Fair Competition

Caterpillar believes that fair competition based on quality, innovation and overall value is fundamental to free enterprise and economic growth. Bribery and corruption can have serious social, environmental and economic consequences – impeding trade, competition, investment and economic growth; and limiting a nation’s ability to reduce poverty and improve standards of living. In some areas of the world where Caterpillar does business, bribery and corruption are significant issues. To drive compliance, Caterpillar has implemented policies and procedures specific to anti-corruption, including policies prohibiting improper payments, regulating the provision and receipt of travel, gifts and entertainment and procedures governing third party due diligence, the provision of business courtesies to government officials and charitable contributions.

We firmly believe that fair competition is fundamental to free enterprise, and in that regard, also have a policy requiring our employees to comply with antitrust laws and abide by our policies on issues regarding competition, including how we interact with our competitors, dealers and suppliers.

We have made compliance with these policies and procedures part of Our Values in Action, and we reinforce these messages through communication at all levels of the organization, and we deliver ongoing employee training throughout our company through a combination of online and in-person training, as appropriate by job function and leadership position in the organization.

Caterpillar was awarded the 2015 Most Responsible Enterprise Award at the 11th Global Corporate Social Responsibility Forum, honoring our sustainability commitments in China.

FOCUS AREA

GOVERNANCE & ETHICS

Ethics and Compliance

(continued)

Information Security

Information security risks in every business sector have significantly increased in the past decade. At Caterpillar, our Information Security Strategy is built around an operating framework comprised of five factors: protect, detect, respond, educate and govern. Various specific business outcomes guide all of our information security efforts, which center on protecting our most valuable information by making risk-based decisions and operating on a secure network. We take a holistic approach to security and maintain information and physical security standards that are current and risk-based. Greater security awareness across the enterprise is evidenced in our employees' ability to spot suspicious emails and report them to our help desks and security incident response teams. This positive employee behavior, coupled with secure technology and detection and response capabilities is helping to secure Caterpillar's future. Caterpillar has a dedicated focus on security and protection of our confidential information.

#28

Caterpillar rank in *Fortune's* 2015
Most Admired Companies



FOCUS AREA

GOVERNANCE & ETHICS

Risk Management

Risk is an inherent part of conducting business, especially for a company like Caterpillar which operates globally. Risk can stem from a variety of factors – from internal issues such as operational inefficiencies or personnel policies to external factors such as the competitive landscape, economic conditions or government regulation.

Caterpillar regularly identifies and monitors business risks through a robust internal management system, and engages in constructive regulation and public policy discussions that benefit employees, customers and stockholders. We manage operational, strategic, financial and compliance risk through two programs: the Business Risk Management (BRM) Program and Caterpillar's Ethics and Compliance Program. The BRM Program helps business units identify, track and mitigate multiple business risks.

Each year, we conduct a comprehensive Enterprise Risk Assessment by reviewing risk information from multiple sources, including business units. To better inform our decision making, Caterpillar evaluates risks using three dimensions (significance, likelihood and velocity) at the business unit and enterprise level.

The results of this BRM risk assessment are incorporated into future action plans to mitigate the identified risks. Compliance risks are also reviewed as part of the BRM risk assessment process and are managed as part of Caterpillar's Ethics and Compliance Program. These risks cover a broad range of issues including legal and regulatory compliance, labor and health and safety.

Every risk identified under the Ethics and Compliance program has an Enterprise Risk Owner who is responsible for managing efforts to mitigate the risk for Caterpillar. They help drive risk management through governance, evaluation, controls, communication and training and compliance audits throughout the world. Through these programs, Caterpillar can better manage risk and gauge the potential impact of various outcomes on our ability to achieve strategic goals.



FOCUS AREA

GOVERNANCE & ETHICS

Public Policy

Government decisions with regard to laws and regulations around the world can have a significant impact on our employees, customers and stockholders. Within all applicable legal parameters, Caterpillar strives to constructively advocate for public policy outcomes that help promote sustainable business conditions for our company, dealers, customers, suppliers and stockholders. The form of advocacy Caterpillar uses may differ depending on the political system and local law.

We communicate the importance of key public policy issues to our employees and other stakeholders, including dealers, suppliers and retirees. In some countries, we may encourage them to express their views to lawmakers – if this practice is consistent with local custom and citizenship rights. Our leaders will also utilize opportunities to interact with government officials directly to advocate our legislative positions.

Finally, we support many organizations and associations that champion public policies that contribute to the success and growth of the business community and manufacturing industry as a whole. We:

- Advocate and seek implementation of policies and legislation that allow Caterpillar, our dealers and customers to succeed.
- Partner with elected officials and policymakers to ensure their understanding on the key public policy issues that impact our business, such as trade, tax, infrastructure and energy.

Where allowable by law, Caterpillar may make corporate contributions to campaigns, individual candidates or political action committees that support public policies that we believe will have an impact on our business. As outlined in Our Values in Action, all corporate contributions are approved by Caterpillar Government Affairs. Full details on these contributions can be found at <http://www.caterpillar.com/en/company/global-issues.html>.

Caterpillar employees in the U.S. also fund and administer the Caterpillar Employee Political Action Committee (CATPAC). CATPAC is funded through voluntary contributions by eligible employees. A Steering Committee comprised of Caterpillar non-officers who represent a diverse mix of U.S. locations and business units oversees all donations made by CATPAC. CATPAC contributions go to federal and state political campaigns and organizations.



FOCUS AREA

COMMUNITY IMPACT

Our success contributes to the social stability of regions around the world. Caterpillar and our employees focus on contributing time and resources to promoting the health and welfare of communities in which we work and live. We conduct our business in a manner that respects human rights. Individually, employees are encouraged to actively engage in activities that contribute to the betterment of society through volunteering time and talents or investing monetary resources in worthwhile community projects and initiatives. In addition, Caterpillar supports the Caterpillar Foundation which has been dedicated to transforming lives in the communities where we live and work around the world since 1952. The Foundation champions programs that support education, environment and basic human needs.



FOCUS AREA

COMMUNITY IMPACT

Economic Development

The Caterpillar organization and our products support economic growth around the world, both in developed countries and emerging markets. From growth economies, where new infrastructure is required, to developed areas where aging networks need improvement, our products help ensure that investments in transportation, energy, telecommunications, waste and water infrastructure produce maximum benefits. We support these investments as key enablers for sustainable development for local communities, economic growth, competitiveness and long-term job creation.

In order to promote economic development, governments have a responsibility to maintain appropriate levels of productive investment in infrastructure while providing a level playing field for suppliers. Leveraging private investment can bring additional sources of funding, provided that investment is supported by fair and predictable policies to maximize the certainty and timeliness of financial returns.

Growth-enhancing infrastructure investments, however, cannot be fully delegated to the private sector, and public financing should continue to comprise the bulk of infrastructure investment. Governments can influence the affordability of infrastructure through the facilitation of permitting, the reduction of administrative burden and the simplification of related requirements. The role of government for infrastructure financing should be based on national needs, including urbanization, commerce and trade policy, transportation, disaster prevention and mitigation, defense and global competitiveness.

Promoting Development through Advocacy

Caterpillar believes that the best means of economic development and the efficient distribution of goods and services is the pursuit of business excellence in a climate of free enterprise, free trade and global competition. Further, such international exchange promotes better understanding across borders and cultures, leading to a more peaceful world. These benefits have been demonstrated by the enormous rise in post-World War II gross domestic product and living standards in countries participating in international commerce. By contrast, many isolated countries have frequently not experienced such advantages.

We believe increased commercial engagement leads to economic gains that raise standards of living, improve the quality of life and promote sustainable development. More importantly, trade liberalization can promote peace and understanding and can be an important contributor to solving the global problems of hunger, poverty and disease. Economic growth through international trade is essential for poverty reduction, but also comes with challenges. Chief among them is the need to balance economic, environmental and social policies to achieve sustainable development. Balanced economic, environmental and social policies provide a common framework for allowing environmental and trade policymakers to engage stakeholders, analyze issues and evaluate policy more efficiently.

We believe increased commercial engagement leads to economic gains that raise standards of living, improve the quality of life and promote sustainable development.

FOCUS AREA

COMMUNITY IMPACT

Economic Development

(continued)

Caterpillar has a long history of advocating for free trade. Our interest comes not from the perspective of any one country, but from our global perspective and with the foundational belief that companies compete best in a free trade environment. Free trade requires us to continually improve our global competitiveness and creates an environment that allows us to better respond to our customers' needs and to grow our business. It offers us the opportunity to source globally and thus compete effectively while providing maximum value to users. Our suppliers, in turn, also have an easier time satisfying our global sourcing requirements. Our employees around the world, and their respective communities, benefit from a higher standard of living, as they have access to more product choices at lower prices. Free trade also allows us to provide more and better job opportunities, because open markets lead to improved competitiveness.

Caterpillar will continue to support policies that enhance competition in the global marketplace and reduce – or better yet, eliminate – trade and investment barriers. We believe that developed countries should adopt policies that allow the benefits of the global economy to be extended to developing countries. To this end, Caterpillar also recognizes that humanitarian and developmental assistance is necessary to fight disease, improve living conditions and combat corruption – all of which can be barriers to free trade and economic growth in the world's poorest countries.

Promoting Development through Employment

While 2015 was a challenging year for Caterpillar, our facilities in more than 61 countries provided quality jobs and opportunities for the people in those locations. At the end of 2015, Caterpillar had about 105,700 employees, which accounts for only a fraction of the jobs directly associated with Caterpillar, primarily represented by our flexible workforce, extended dealer network and supply chain. In addition to the direct economic contributions to the local economies associated with employee, dealer and supplier compensation, indirect contributions occur as a result of spending by the employees, dealers, suppliers and customers who visit our facilities throughout the world.



The importance of manufacturing jobs to the economy – not just in the United States, but worldwide – cannot be overstated. According to the Bureau of Economic Analysis, manufacturing contributed \$2.1 trillion to the United States economy in 2014, an increase from the year before. For every dollar spent in the manufacturing industry, another \$1.48 is added back into the economy – the highest such multiplier for any economic sector that the Bureau tracks. The U.S. Department of Commerce estimates that total hourly compensation for manufacturing workers is about 17 percent higher than workers in nonmanufacturing sectors. In addition, manufacturing jobs translate into additional jobs in other parts of the economy.

Cross-Department Cooperation to Speed Access to the Indian Market

Where regulations slow the free movement of goods and services, we look for ways to reduce trade barriers and provide greater benefits to the markets we serve. In India, where Caterpillar is working to expand its operations, the number and stringency of pollution control regulations for engine emissions are increasing. Engines cannot be sold in India until they have undergone a certification process and have received a type approval certificate from the Central Pollution Control Board, a process which slows the delivery of engines to our customers. Our new engines provide many benefits over older models, and so obtaining faster access to the Indian market became an important priority.

In 2015, Caterpillar's Global Government & Corporate Affairs and Legal Services teams sought an interpretation of the regulations from Indian government authorities in order to streamline the process for obtaining engine type approval. As a result of this successful effort, the lead time required for filing applications for certification was reduced, allowing Caterpillar engines to reach the Indian market more quickly.

FOCUS AREA

COMMUNITY IMPACT

Economic Development

(continued)

Promoting Development through Microfinancing

Another way that Caterpillar impacts economic development is through investments in nonprofits by the Caterpillar Foundation. These grants aid local economic development by providing funds to programs that work to alleviate poverty at the root cause.

In 2015, the Caterpillar Foundation invested in Opportunity International (OI) to improve livelihoods and economic opportunity in three African countries and Colombia. The first set of grants support OI's "Accelerating Access to Quality Education" initiatives in Colombia, Ghana and Uganda. Because lack of access to a high-quality education is a significant barrier to a girl's economic future and perpetuates a cycle of poverty among women, we are supporting OI's loans and training to school proprietors aimed at expanding and improving schools by hiring teachers, building classrooms, adding transportation and upgrading facilities.



As documented by Global Campaign for Education & Results Educational Fund, studies have found significant benefits to providing education to girls and women, including that a single additional year of primary school boosts a girl's eventual wages by 10 to 20 percent. These benefits extend far beyond the individual student: The children of women who finish primary school are 40 percent less likely to die before age five, and better-educated women are more likely to have fewer children and send their children to school as well. Finally, educating young people brings a cascading improvement in development, as they use the knowledge and skills they have

acquired to expand sustainable development in their communities to benefit future generations. Our support of OI will directly affect 167,000 people in Colombia, Ghana and Uganda, including 84,000 girls and women.

With our support, OI will provide 156,000 agriculture loans to smallholder farmers in Ghana, Rwanda and Uganda, and financial and educational training to 133,000 smallholder farmers.

Just as providing education to young people offers both immediate and long-term economic benefits, supporting agricultural loans in Africa offers sustenance and livelihoods to smallholder farmers and their families while also building capacity to meet growing global food demand. In 2015, the Caterpillar Foundation invested in Opportunity International's work with smallholder farmers in Ghana, Rwanda and Uganda. The funds are helping to address that fact that despite

hosting 25 percent of the world's farmable land, Africa produces only 10 percent of the world's food crops and farmers consistently suffer from chronic poverty due to low production, low selling prices and financial management challenges.

OI provides African smallholder farmers with a full range of banking services, financial education and training in good agricultural practices, while also connecting farmers to local crop markets and a safe place to save their hard-earned money. This holistic approach to agricultural support helps address productivity, selling prices and cash flow, putting smallholders on a more equal footing with larger farms, resulting in farming households that are better positioned to educate their children, improve household nutrition and enjoy increased quality of life. With our support, OI will provide 156,000 agriculture loans to smallholder farmers in Ghana, Rwanda and Uganda, and financial and educational training to 133,000 smallholder farmers.



FOCUS AREA

COMMUNITY IMPACT

Human Rights

Caterpillar has a long history of building products and equipment that advance sustainable global economic development and improve standards of living in communities where we operate. Along with helping improve the quality of life in communities around the world, Caterpillar is also committed to protecting and respecting human rights, as articulated in Our Values in Action.



Our Policies

In 2015, we created a new Human Rights Policy to further strengthen our efforts in this area. The policy is guided by the international human rights principles described in the United Nations Declaration of Human Rights (UNDHR) and the International Labour Organization’s (ILO) Declaration on Fundamental Principles and Rights at Work. In drafting this policy, Caterpillar undertook a comprehensive process that included cross-functional business input, feedback from external stakeholders and industry guidance, and review by the public policy and governance committee of Caterpillar’s Board of Directors.

In addition to creating a human rights policy, we aligned with the process outlined in the UN Guiding Principles on Business and Human Rights by conducting a human rights impact assessment. Caterpillar worked with a third party to develop the human rights impact assessment, which considered actual and potential human rights impacts in Caterpillar’s operations, our supply network, our dealer network and our licensed products.

Our Governance and Implementation

The Human Rights Policy was approved by company executives in early 2015. These efforts led us to adjust a number of our enterprise-wide business practices in 2015. In addition, we established a new human rights governance committee that is chartered with the responsibility to manage all human rights issues and requests across the company. The committee reports its metrics on a regular basis through the existing Office of Business Practices process and the public policy and governance committee of the Board of Directors.

Our employees and partners play a key role in informing our strategy and implementation. In this regard, we have begun incorporating human rights into our employee sustainability training — which we will roll out across the company in 2016. We have also incorporated human rights criteria into our enterprise risk management and due diligence processes. We also integrated human rights into our existing grievance mechanism and reporting system.

Human Rights Grievances

In 2015, Caterpillar received 85 requests related to human rights through our formal grievance mechanisms; 96 percent of those were addressed before the end of the year.

In 2016 and beyond, Caterpillar will work to further embed this policy across the enterprise, and continuously evaluate the program as it matures. This work includes completing the remaining changes and additions to our human rights processes, delivering training for employees and reporting on the progress we have made on human rights in our next sustainability report.



FOCUS AREA

COMMUNITY IMPACT

Philanthropy/Social Innovation

Through strategic investments and collaborations, we leverage our unique strengths to make contributions that support poverty alleviation. We collaborate across our value chain to develop programs that provide job training and increase workplace safety. Globally, our employees generously volunteer their time, skills and talents to achieve significant community impact where they work and live.

The Caterpillar Foundation

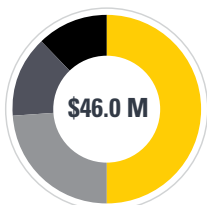
Founded in 1952, Caterpillar has supported the philanthropic work of the Caterpillar Foundation, which has contributed more than \$650 million to help make sustainable progress possible around the world. The Caterpillar Foundation's mission is to eliminate poverty by placing people on a path to prosperity. This builds strong economies and communities. We champion programs that support:

- Environment: rebuilding natural infrastructure
- Education: numeracy and literature, mentoring and leadership and workforce readiness (including Science, Technology, Engineering and Math)
- Basic Human Needs: energy access, food, shelter, water, disaster relief

When we look at places our philanthropy can make an environmental impact, we do not need to look much farther than the backyard of our Peoria, Illinois, headquarters. In recent decades, the Upper Mississippi River region has lost more than 75 percent of its wetlands, which provide wildlife habitat, flood protection and water filtration – not to mention the associated economic and recreation activities to people throughout the Mississippi River basin.

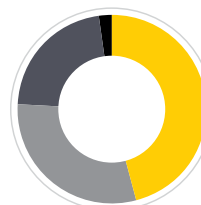
In 2015, the Caterpillar Foundation continued our support of Ducks Unlimited with a grant to support wetlands conservation efforts in the Upper Mississippi River basin. With our support, Ducks Unlimited will be able to protect more than 17,000 acres of wetlands habitat, which will reduce flood damage costs to the region by \$500,000, reduce sediments and agricultural runoff flowing into the river and protect the commercial fishing operations and recreational opportunities that generate more than \$1 billion in economic activity in the region each year.

2015 CATERPILLAR FOUNDATION INVESTMENTS IN OUR COMMUNITIES



- 50% / United States & Canada
- 24% / Europe, Africa and Middle East
- 14% / Asia Pacific
- 12% / Latin America

2015 AREAS OF INVESTMENT



- 46% / Basic Human Needs
- 30% / Education
- 22% / Environment
- 2% / Arts & Culture

FOCUS AREA

COMMUNITY IMPACT

Philanthropy/Social Innovation

(continued)

Global Employee Volunteerism & Engagement

The volunteer efforts of our employees distinguish our people and demonstrate they are leaders not only in the workplace, but also in the community. We continuously strive for innovative ways to empower and support our employee volunteers, which is why we are expanding our focus on employee volunteerism and engagement. We are developing and launching new strategies to enable employees across the globe to contribute to the well-being of their communities.



Our Goal: Place 50 million people on the path to prosperity by 2020.

Caterpillar employees and retirees volunteer countless hours every year, contributing selflessly to hundreds of nonprofit organizations across the globe.

In keeping with this focus on employee volunteerism and engagement, Caterpillar piloted its first “Global Month of Service” in China in 2015. Employees from 16 divisions located in eight cities across China participated in the pilot Global Month of Service. Whether it was collecting trash, maintaining trees, drawing pictures for charity, providing donations to support the migrant community, accompanying disabled children on a one-day outing or helping fulfill wishes of vulnerable families, Caterpillar employees and their families and friends generously gave back to their communities. The Global Month of

Service model will continue to expand in 2016 and beyond, ultimately including all of Caterpillar’s global facilities.

In South Queensferry, Scotland, a small team of employees at our Progress Rail Services division translated their passion for wildlife into a project that transformed our South Queensferry Foundry (SQF) into a habitat for wildlife, and redefines what is possible by welcoming wildlife into an industrial site.

The foundry sits on the estuary of Scotland’s Forth River, and the region is home to a number of birds, mammals, reptiles and insects, including species that are found on the Scottish biodiversity priority species list, such as the tree sparrow and the common toad. The Progress Rail team led the project to build more than 40 nest boxes for birds, expand a wildflower meadow on site, restock the site’s pond with native fish and aquatic plants and install cameras to record the wildlife that are drawn to the reinvigorated open spaces. Through a multi-year partnership with the Scottish Wildlife Trust, of which SQF is a corporate member, our team is conducting an annual census of wildlife and plant species found on the site; the first year’s census identified dozens of new flora as well as nine new bird species on the site for the first time.

While the SQF biodiversity project is unlike any others that made our Environmental Excellence list, it shows the impact that our dedicated and passionate employees can bring to Caterpillar’s work. The SQF project has already raised the company’s profile in Scotland and brought members of the community and regional dignitaries to the site to witness the impacts we have had by welcoming wildlife into the factory’s ecosystem.

Caterpillar supports a culture of employee volunteerism and engagement.

U.S. Voluntary Contributions

Our employees not only volunteer their time to worthy causes, they also contribute their financial resources. Caterpillar has joined with our employees to support giving in two ways – through our Caterpillar Employee United Way Appeal and through a Matching Gifts Program managed and matched by the Caterpillar Foundation.

Since the 1950s, Caterpillar has had only one corporate solicitation to employees – the Caterpillar Employee United Way Appeal. All employee contributions raised through this solicitation are distributed back to the United Way agencies of their choice, along with a dollar-for-dollar match from the Caterpillar Foundation. Each local United Way then invests in programs in the community. This is a great way for Caterpillar employees to invest in local charities, with each local United Way helping assess community needs, identifying programs delivering measurable outcomes and working to eliminate future needs by creating long-term solutions. In 2015, a total of more than \$13 million was donated to the United Way, a record amount composed of \$6.5 million in employee contributions, and an equal amount matched by the Caterpillar Foundation.

The Caterpillar Foundation is proud to offer the Matching Gifts Program to support the monetary contributions that U.S. employees, retirees and directors make to worthy causes in the areas of arts and culture, two- and four-year colleges and universities, environment and public policy. The program provides a dollar-for-dollar match on contributions between \$50 and \$2,000 per organization with no limit to the number of organizations per person. Last year, the Foundation matched \$3.2 million through this program. For more details on the Matching Gifts Program, visit www.caterpillar.com/matching-gifts.



SUPPORTING GLOBAL SANITATION IMPROVEMENTS

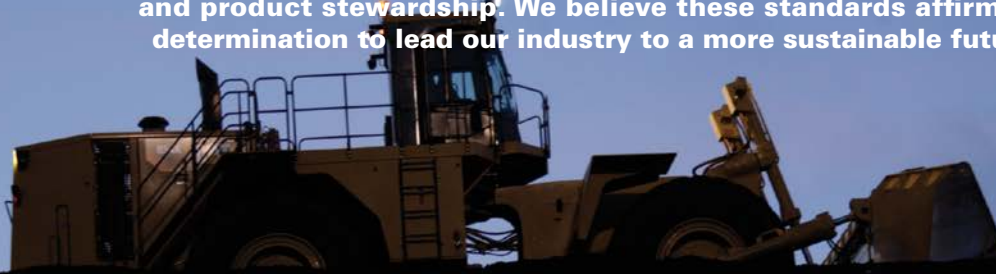
When we seek to meet basic human needs around the world, particularly those of women and girls, sanitation is a high-impact area where we can focus our efforts. In 2015, the Caterpillar Foundation continued our support of The Global Poverty Project (GPP) with an investment to support universal access to sanitation. The grant will help GPP advocate for policies around the world that enable entrepreneurship, especially for women, by removing barriers caused by poor and inequitable access to sanitation – such as places to hand wash or use the toilet – and lack of access to basic education. GPP estimates universal sanitation would improve the entrepreneurial potential of women by freeing up more than 200 million hours for women and girls each day, enabling them to achieve an education, have time for paid employment or to run their own small enterprises. Combined, these measures would return an estimated \$220 billion to the global economy annually.

In 2015, the United Nations adopted the Sustainable Development Goals (The Global Goals), a series of 17 goals with 169 targets to be achieved by 2030. Included in these goals were two key aspects of our policy partnership with GPP: the recognition of the need to ensure access to adequate sanitation and hygiene for all, and a commitment to end open defecation, especially for women, girls and those in vulnerable situations. GPP will continue to work on other aspects of our sanitation-policy partnership, including securing a \$10 million per year increase in Water, Sanitation and Hygiene (WASH) aid from the United States government, and urging four new governments or companies to allocate new, additional financial resources to sanitation efforts.



GOALS & PROGRESS

Caterpillar has set aspirational, long-term goals for its operations and product stewardship. We believe these standards affirm our determination to lead our industry to a more sustainable future.



2020 GOALS

2020 GOALS FOR OPERATIONS

SAFETY



Reduce our recordable workplace injury rate to 0.6 and lost-time case rate due to injury to 0.15.

WATER



Reduce water consumption intensity by 50 percent from 2006.

ENERGY



Reduce energy intensity by 50 percent from 2006.

BY-PRODUCT MATERIALS



Reduce by-product materials intensity by 50 percent from 2006.

ENERGY



Use alternative/renewable sources to meet 20 percent of our energy needs.

SUSTAINABLE CONSTRUCTION



Design all new facility construction to meet Leadership in Energy and Environmental Design (LEED) or comparable green building criteria.

GHG EMISSIONS



Reduce greenhouse gas emissions intensity by 50 percent from 2006.

2020 GOALS FOR PRODUCT STEWARDSHIP

SAFETY



Provide leadership in the safety of people in, on and around our products.

PRODUCTS, SERVICES AND SOLUTIONS



Leverage technology and innovation to improve sustainability of our products, services and solutions for our customers.

SYSTEMS OPTIMIZATION



Increase managed fleet hours by 100 percent from 2013.

REMAN AND REBUILD



Increase remanufactured and rebuilt business sales by 20 percent from 2013.

Caterpillar's progress in 2015 toward our 2020 goals is provided on the following pages. Intensity-based goals are measured against company sales and revenues, and a decline in sales and revenues in 2015 directly affected our progress toward these goals. Nevertheless, we continued to focus on efficiency improvements and these efforts contributed to year-over-year performance gains in these areas in 2015 when measured on an absolute basis.

GOALS & PROGRESS

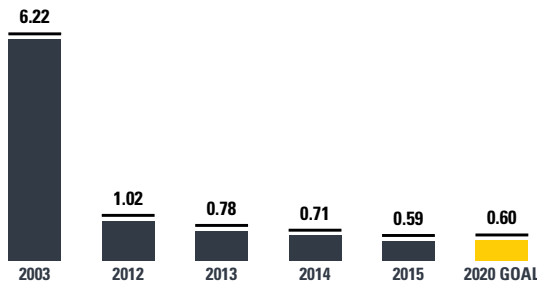
OPERATIONS

Safety



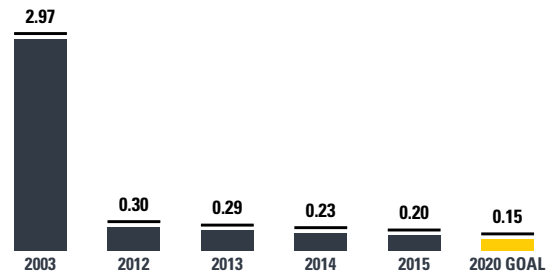
GOAL: Reduce our recordable workplace injury rate to 0.6 and lost-time injury case rate to 0.15 by 2020.

0.59 RECORDABLE INJURY FREQUENCY (RIF)
Recordable injuries per 200,000 hours worked



We have improved our Recordable Injury Frequency rate by 90.5 percent from our 2003 base year and 17 percent from our last reporting period.

0.20 LOST-TIME CASE FREQUENCY RATE (LTCFR)
Work-related injuries resulting in lost time per 200,000 hours worked



We have improved our Lost-Time Case Frequency Rate by 93 percent from our 2003 base year and 13 percent from our last reporting period.

GOALS & PROGRESS

OPERATIONS

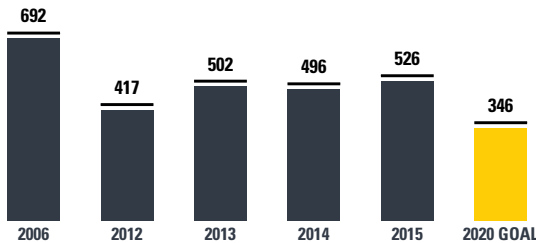
Energy



GOAL: Reduce energy intensity by 50 percent from 2006 to 2020.

526 ENERGY INTENSITY

Absolute gigajoules energy use/million dollars of revenue



Operational energy intensity decreased 24 percent from 2006 to 2015. In addition, our absolute energy consumption decreased 10 percent from 2014 to 2015.

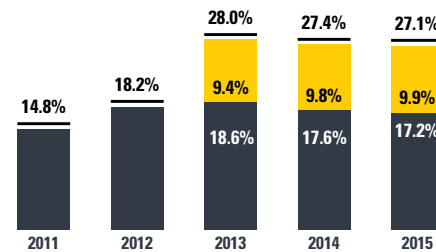


GOAL: Use alternative/renewable sources to meet 20 percent of our energy needs by 2020.

27.1 ALTERNATIVE/RENEWABLE ENERGY¹

Sum of alternative and renewable electrical energy use/total electrical use x 100

■ Alternative ■ Renewable



¹ Total includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid purchased electricity using data obtained from the International Energy Agency.

In 2015, 27.1 percent of our electrical energy was from renewable or alternative sources.

Renewable Energy: Caterpillar defines renewable energy as energy resources that are naturally replenishing over a short period of time and virtually inexhaustible. Power generation examples include wind, solar, hydro, geothermal, tidal, wave, biomass and biogas from anaerobic digestion.

Alternative Energy: Caterpillar defines alternative energy as any source of usable energy that offers substantial environmental benefits compared to the conventional sources of energy that it replaces. Power generation examples include renewable sources listed above, plus landfill gas, coal mine and abandoned mine methane, combined heat and power (cogen, trigen and quadgen), coal with carbon sequestration and localized power generation. Transportation fuel examples include renewable sources listed above, plus pure methanol, ethanol blends of 85 percent or more with gasoline, pure natural gas, natural gas blends of 85 percent or more with diesel fuel, liquid fuels domestically produced from natural gas (compressed natural gas, liquefied natural gas and gas to liquid fuels), propane, coal-derived liquid fuels, hydrogen and electricity.

GOALS & PROGRESS

OPERATIONS

continued

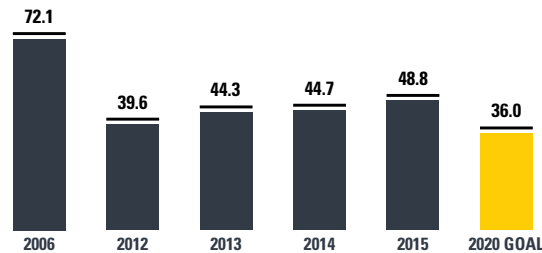
GHG Emissions



GOAL: Reduce greenhouse gas emissions intensity by 50 percent from 2006 to 2020.

48.8 GHG EMISSIONS INTENSITY¹

Absolute metric tons of CO₂e/million dollars of revenue

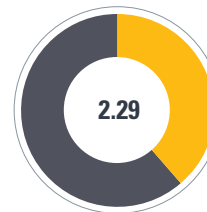


¹ GHG emissions intensity reduction goal is based on our combined Scope 1 (direct) and Scope 2 (indirect, market-based) GHG emissions using a 2006 baseline year. Likewise, total absolute GHG emissions are a sum of Scope 1 and Scope 2 (market-based) emissions.

Through 2015, Caterpillar has reduced GHG emissions intensity from our facilities by 32 percent compared with our 2006 base year. From 2014 to 2015, our absolute GHG emissions were reduced by 7 percent.

2.29 TOTAL ABSOLUTE GHG EMISSIONS

Million Metric Tons



- 0.89 million metric tons Scope 1 GHG emissions (direct emissions)
- 1.40 million metric tons market-based Scope 2 GHG emissions (indirect emissions from purchased electricity, heat or steam)

1.45 million metric tons location-based Scope 2 GHG emissions²

² Location-based Scope 2 GHG emissions are provided in accordance with the GHG Protocol updated Scope 2 guidance.

In 2015, the GHG Protocol provided updated Scope 2 calculation guidance. Our market-based Scope 2 emissions are calculated using the updated Scope 2 Quality Criteria. The following instruments were used in calculating our market-based Scope 2 emissions: Renewable Energy Guarantees of Origin, energy contracts, supplier specific emission rates, Caterpillar owned combined heat and power cogeneration facilities, and, for the remainder of our facilities, grid average emission factors from USEPA's eGRID and the International Energy Agency's data. For 2015 calculations, Caterpillar did not use residual mix factors.

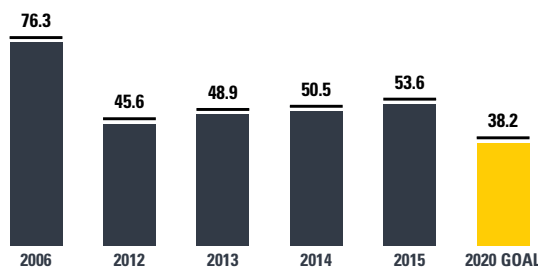
Water



GOAL: Reduce water consumption intensity by 50 percent from 2006 to 2020.

53.6 WATER CONSUMPTION INTENSITY^{1,2}

Absolute thousand gallons of water/million dollars of revenue



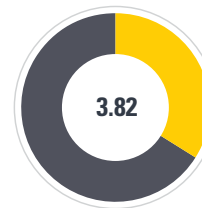
¹ Data prior to 2015 has been restated due to data updates realized from improved accuracy.

² Water consumption intensity does not include non-contact cooling water from foundry operations.

Through 2015, we have reduced water consumption intensity at our facilities by a total of 30 percent from our 2006 base year intensity. Our 2015 absolute water consumption, including non-contact cooling water from foundry operations, was 3.82 billion gallons of water, a reduction of 12 percent from the previous year.

3.82 TOTAL ABSOLUTE WATER CONSUMPTION

Billion Gallons



- 1.30 billion gallons non-contact cooling water from foundry operations
- 2.52 billion gallons enterprise water consumption excluding non-contact cooling water from foundry operations

WATER SOURCES



- 34% / non-contact cooling water from foundry operations
- 29% / municipal water
- 22% / groundwater
- 15% / surface water

GOALS & PROGRESS

OPERATIONS

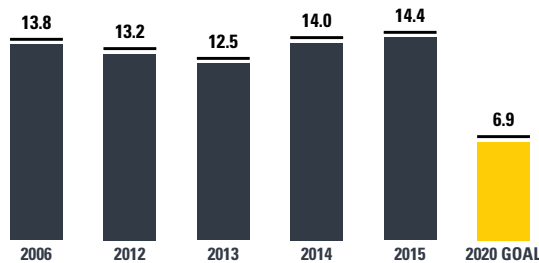
By-Product Materials



GOAL: Reduce by-product materials intensity by 50 percent from 2006 to 2020.

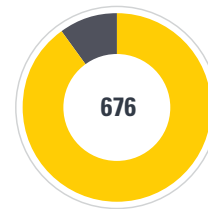
14.4 BY-PRODUCT MATERIALS INTENSITY

Absolute metric tons of by-product materials/million dollars of revenue



676 BY-PRODUCT MATERIALS

Thousand Metric Tons



● 90% / recycled
● 10% / disposed (sent to landfill or incinerated)

In 2015, we generated a total of 676,000 metric tons of by-product materials, with 90 percent of those materials recycled. Our by-product materials intensity increased 4 percent from our 2006 base year to 2015. However, we decreased our generation of total absolute by-product materials by 12 percent from 2014 to 2015.

Sustainable Construction



GOAL: Design all new facility construction to meet Leadership in Energy and Environmental Design (LEED) or comparable green building criteria.

According to the U.S. Green Building Council, 88 percent of the Fortune 100 companies use LEED design and construction criteria. Facilities designed to the LEED criteria are more energy- and resource-efficient than traditional construction. LEED facilities are also designed to create a healthier indoor environment for employees.

In 2015, the following Caterpillar facilities received certification in accordance with the U.S. Green Building Council's LEED BD+C (Building Design and Construction) certification process or comparable criteria:

LEED Silver

- Advanced Components & Systems Division, Monterrey, Mexico

33% Facilities that completed construction in 2015 that met LEED or comparable green building criteria

GOALS & PROGRESS

PRODUCT STEWARDSHIP

Safety



GOAL: Provide leadership in the safety of people in, on and around our products.

Progress: See [Customer Safety](#) for examples of our progress.

Products, Services and Solutions



GOAL: Leverage technology and innovation to improve sustainability of our products, services and solutions for our customers.

Progress: In 2015, 18 percent of Caterpillar’s reported sales and revenues was from products, services and solutions that demonstrated an improved sustainability benefit over existing offerings. This includes remanufacturing, component overhauls at Cat® dealers, power generation using alternative energy sources, customer job site optimization and innovative new products. The components are evaluated each year to adjust for acquisitions, divestitures, offerings that become standard and improvements to data accuracy.

18% 2015 reported sales and revenues derived from products, services and solutions that demonstrate an improved sustainability benefit over existing offerings.

Systems Optimization



GOAL: Increase managed fleet hours by 100 percent from 2013 to 2020.

Progress: Caterpillar Job Site Solutions (JSS) team was formed in 2005 and has grown significantly. JSS offers customers complete solutions that are designed to improve performance on the job site and to increase the sustainable benefits of the work performed.

68% Increase in fleet hours managed by Caterpillar Job Site Solutions (2013 to 2015)

91% Increase in number of machines covered by service agreements with Caterpillar Job Site Solutions (2013 to 2015)

GOALS & PROGRESS

PRODUCT STEWARDSHIP

Reman and Rebuild

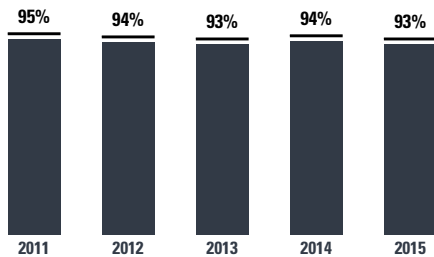


GOAL: Increase remanufactured and rebuild business sales by 20 percent from 2013 to 2020.

Progress: Our remanufacturing and rebuild businesses reduce waste and minimize the need for the raw materials necessary to produce new parts. This system is where Caterpillar is making some of its greatest contributions to sustainable development — keeping nonrenewable resources in circulation for multiple life cycles. Our reman sales decreased 15 percent from 2013 to 2015, while our rebuild sales decreased 3 percent during the same period.

93% REMAN END-OF-LIFE "TAKE-BACK" PERCENT¹

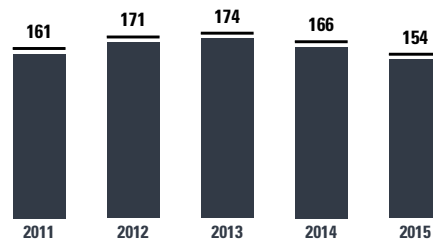
Actual end-of-life returns/eligible returns x 100



¹ Data does not include Progress Rail, Electro-Motive or Solar Turbines.

154 REMAN END-OF-LIFE "TAKE-BACK" BY WEIGHT¹

Millions of pounds of end-of-life material received



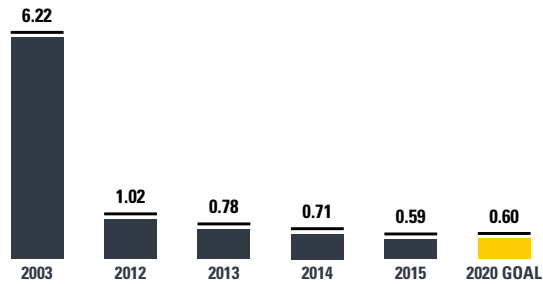
¹ Data does not include Progress Rail, Electro-Motive or Solar Turbines.

GOALS & PROGRESS

PERFORMANCE AT-A-GLANCE

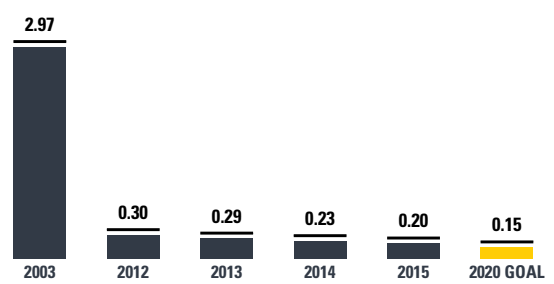
RECORDABLE INJURY FREQUENCY (RIF)

Recordable injuries per 200,000 hours worked



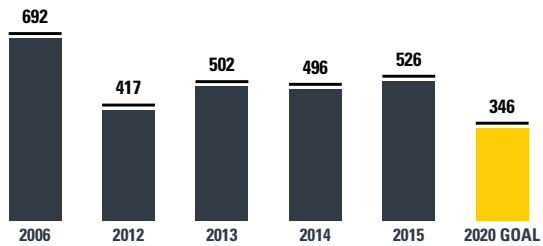
LOST-TIME CASE FREQUENCY RATE (LTCFR)

Work-related injuries resulting in lost time per 200,000 hours worked



ENERGY INTENSITY

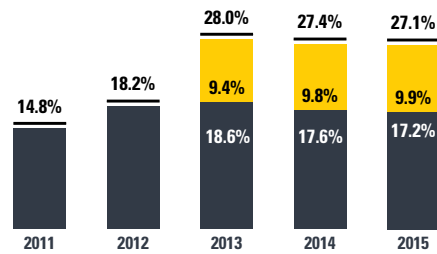
Absolute gigajoules energy use/million dollars of revenue



ALTERNATIVE/RENEWABLE ENERGY¹

Sum of alternative and renewable electrical energy use/total electrical use x 100

Alternative ■ Renewable ■



¹ Total includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid-purchased electricity using data obtained from the International Energy Agency.

² Data prior to 2015 has been restated due to data updates realized from improved accuracy.

³ Water consumption intensity does not include non-contact cooling water from foundry operations.

⁴ Data does not include Progress Rail, Electro-Motive or Solar Turbines.

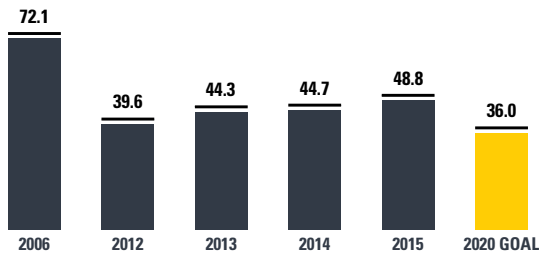
GOALS & PROGRESS

PERFORMANCE AT-A-GLANCE

continued

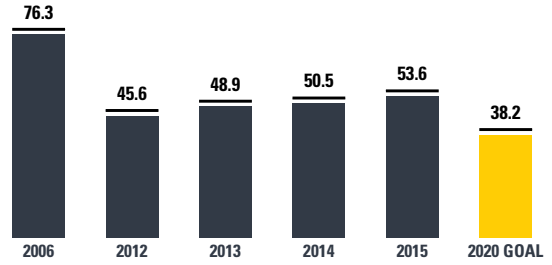
GHG EMISSIONS INTENSITY

Absolute metric tons of CO2e/million dollars of revenue



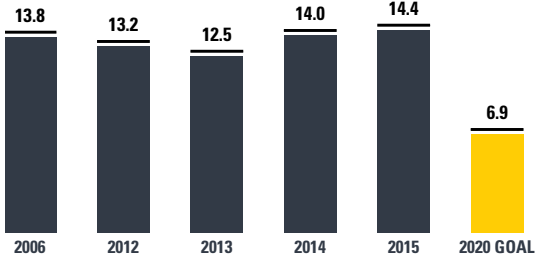
WATER CONSUMPTION INTENSITY^{2,3}

Absolute thousand gallons of water/million dollars of revenue



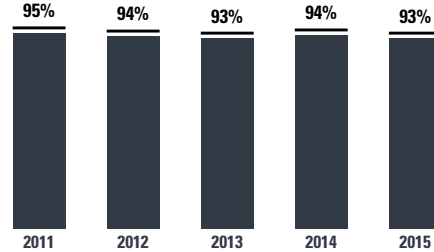
BY-PRODUCT MATERIALS INTENSITY

Absolute metric tons of by-product materials/million dollars of revenue



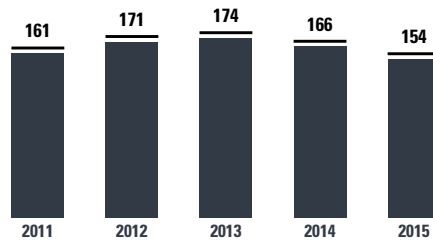
REMAN END-OF-LIFE "TAKE-BACK" PERCENT⁴

Actual end-of-life returns/eligible returns x 100



REMAN END-OF-LIFE "TAKE-BACK" BY WEIGHT⁴

Millions of pounds of end-of-life material received



1 Total includes purchased and on-site generated alternative and renewable energy, as well as calculating the percentage of renewable energy from grid-purchased electricity using data obtained from the International Energy Agency.

2 Data prior to 2015 has been restated due to data updates realized from improved accuracy.

3 Water consumption intensity does not include non-contact cooling water from foundry operations.

4 Data does not include Progress Rail, Electro-Motive or Solar Turbines.