

LOCAL CITIZEN

**Making Sustainable Progress Possible
One Community at a Time**

2014 SUSTAINABILITY REPORT





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Doug Oberhelman
Chairman & CEO
Caterpillar Inc.

Local Citizen: Making Sustainable Progress Possible One Community at a Time

Caterpillar is the world's largest manufacturer of heavy equipment, so sometimes it's hard for people to make the connection between our business and our commitment to sustainability. For me, it's not hard at all. It's who we are and what we do every day. We protect the health and safety of ourselves and others. We innovate to make our products more efficient and to prevent waste. We support infrastructure development and environmental responsibility.

We are a diverse global team striving to build a better world, one community at a time.

We elevated Sustainability to one of Our Values in Action in 2014, but sustainability is not new to us, not at all. "Making Sustainable Progress Possible" has long been a cornerstone commitment to our customers, stockholders and employees. We have also long known that sustainable progress requires balancing the economic, environmental and social aspects of our business.

This report presents example after example of how we are contributing to that progress and balance. Sustainability drives innovation at Caterpillar – through innovation and technology, we reduce resource consumption, emissions and their associated costs.

Sustainability drives innovation.

In these pages, you'll learn about innovations like Solar Turbines' new SoLoNOx™ technology that reduces NOx emissions from gas turbines; and innovations that combine the best attributes of existing solutions – like Caterpillar Marine's new twin fin propulsion system that is robust, easy to maintain and, because it's compact, doesn't compromise maneuverability or cargo space. This report highlights innovations with the potential to transform an industry – like our Intelligent Compaction system that enables paving machines to achieve desired criteria on a new roadway in as little as a single pass. That increases productivity and safety, and reduces fuel consumption and CO2 emissions.

Sustainability drives innovation in our internal operations, too – like the transportation and packaging process improvements in Building Construction Products facilities around the world. These facilities and their suppliers have worked together closely, and now we have fewer, more efficient shipments. This has increased safety and reduced processing time, CO2 emissions and costs.

Wherever Caterpillar designs, develops, builds and sells, we recognize and respect our responsibility to build a better world. We envision a world in which people's basic needs – including shelter, clean water, sanitation, food and reliable energy – are fulfilled in an environmentally sustainable way. Our facilities, products, services and solutions focus on using resources efficiently as we strive to achieve that vision.

And we do it, one community at a time.

We reclaim, recycle and remanufacture.

In greenhouses, our generator sets not only generate power efficiently; they also use CO2 beneficially to aid plant growth. This means many parts of the world have year-round access to food and flowers that they might not have otherwise. Mining reclamation sites use Cat® equipment to grade and restore land, returning it to its native state. You'll read about a North Dakota site that I visited during the year, where a landscape that not long ago was producing vital mineral ore has transformed again, back into rolling hills, woods and grassy fields.

We are especially proud that, for more than 40 years, we have been remanufacturing our products and parts, restoring them to be as strong and useful to our customers as if they bought them brand new. Over the last 10 years, Caterpillar's worldwide remanufacturing operations have recycled more

▶ **Caterpillar Chairman and CEO, Doug Oberhelman, provides his thoughts on our sustainability commitment and making sustainable progress possible in our communities. [Learn more here.](#)**

The Chairman's Sustainability Awards



Above, left: North Carolina-based BCP Core team members (l to r) Sheila Adams, Wendy Rinaldi, Matthew Drown, William Lucas, Christopher Self and Srinu Turumella. Above, right: PD> team members, (l to r) John Winkler, Mark Tarvin, Allen DeClerk, Paul Corcoran and Liqun Chi

The Chairman's Sustainability Awards recognize teams and individuals who demonstrate our mission of sustainable progress and help us achieve 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 aspects of sustainability – economic, environmental and social performance – for our business and our customers, while the Process Sustainability Award recognizes operational or business process excellence – including collaboration with dealers, customers and suppliers – that best demonstrates pursuit of sustainability. Now in its fourth year, the awards program attracted 37 nominations from 17 different divisions in more than a dozen countries for the 2014 competition.

Every project submitted gives testimony to our commitment to Making Sustainable Progress Possible. One, for example, demonstrates \$15.4 million in cost savings and over 5,000 metric tons of CO2 emissions reductions. Every project is certainly a *win* for Caterpillar, our people and the environment.

In 2014, a Product Development & Global Technology (PD>) team was awarded the Product/Service/Solution Sustainability Award for its Intelligent Compaction project. Read more in Measuring What Matters on page 8. Likewise, a team from Building Construction Products (BCP) division was awarded the Process Sustainability Award for its project that reduces CO2 emissions from logistics processes. Find more about the project in Supply Network on page 52.



BCP extended team, left to right: Stuart Burton (Leicester, England), Ken Snider (Morton, Ill.), Tabitha Booth (Morton, Ill.) and Jeff Gu (Wujiang, China)

than 500,000 tons of materials, keeping them out of landfills or scrap heaps. Our remanufacturing work alone has kept over 1,000,000 tons of greenhouse gas out of the atmosphere. In June, I shared a detailed history of Caterpillar's commitment to sustainability with our shareholders.

[▶ Learn more here.](#)

Sustainability builds communities.

In this report, you'll also read about our continued safety record improvements. Our safety record is among the best of any industrial company today. In 2014, we decreased our Recordable Injury Frequency to 0.71. That's a 9 percent reduction from 2013. I think about how lives are better when injuries are avoided. We started our intense journey to improve safety more than a decade ago, and we'll never let up.

And our employees live in the communities near the Caterpillar facilities where they work, so we are personally interested in preserving and improving those communities. I think our people *are* proud of Caterpillar's work in their neighborhoods, all over the world. We've included just a few examples in this report, including employees in Nashville, Tenn., who provide pro bono legal services and employees in Brazil who are preserving native plants.

The Caterpillar Foundation supports dozens and dozens of efforts like these through grants that are targeted to alleviate the root causes of poverty and provide paths to self-sufficiency and prosperity. Since its formation in 1952, the Caterpillar Foundation has given hundreds of millions of dollars to support sustainable progress for families and communities across the globe.

Sustainable progress is not possible without access to reliable, clean and affordable energy, water, food and shelter. At Caterpillar, we support the development of all of these.

Energy access is fundamental to prosperity.

Caterpillar knows that energy is fundamental to higher living standards and economic growth. We support traditional fossil fuels and technology that will make those fuels burn more efficiently. We are also pursuing innovations that utilize alternative and renewable resources.

Whether it's our industrial engines that support energy production; our machines that excavate and build new dams and power plants; our generator sets that power medical clinics; or our diesel-electric locomotives that transport food and materials across countries – Caterpillar actively leads the world in creating better conditions for economic growth and opportunity.

We are a company built on values; 2015 is our 90th anniversary as a company living and operating according to those values. We are a global team, the best there is, and we will continue to make sustainable progress possible one community at a time.

Doug Oberhelman
Chairman & CEO
Caterpillar Inc.

LOCAL CITIZEN



Local Citizen: *Steven Rodriguez*

Community: *Victoria, Texas*

**How I make sustainable progress possible:
*A 50% reduction in injury frequency***



Built In Quality

Our goal at Caterpillar is to deliver the highest-quality machines for our customers, while manufacturing them in the safest, most efficient way. To help us meet this goal, we introduced Lean manufacturing in 2013, with its foundational principle, Built In Quality (BIQ). BIQ works to ensure that processes are done right the first time, with the right tools, ergonomics and job training with a goal of eliminating unplanned, out-of-process rework to correct defects.

Our hydraulic excavator facility in Victoria, Texas, was part of the series of pilot facilities in which Lean manufacturing was implemented. With BIQ now part of the facility procedures and culture, Steven Rodriguez, team lead, uses BIQ methodology to trace defects back to their root cause and works to eliminate them. “My team was very excited about implementing BIQ,” says Steven. “We’re taking ownership of what we’re doing on the production line. We find out what would make a job easier and we get the manufacturing engineers involved too.” The result? BIQ led to big reductions in production time and in defects. “BIQ has made my life easier,” says Steven. “I do my inspections and, because there are fewer defects, I don’t have to take

my team away from the production line for rework.” Fewer defects means less time on rework and fewer safety incidents.

Specifically, the production line is designed to safely and efficiently build our products the first time, start to finish. Defects are unplanned and therefore typically are addressed through out-of-process rework. Out-of-process rework is often conducted in areas called rework bays, without the job-specific ergonomic design, tools and fixtures associated with regular production lines. Similarly, because this work is out of process, or “one-off,” employees are frequently performing tasks they’ve never performed or performed only a few times. Because of this, reducing the need to address defects through out-of-process rework also decreases the risk of injury. With the help of Lean and BIQ, as well as other safety improvement initiatives, the Victoria facility has had about a 50 percent decrease in recordable injury frequency (RIF), or safety injuries, from 2013 to 2014, resulting in a RIF of 0.82 for 2014. Steven reminds us that quality is important, but worker safety is still our highest priority. “We ask, ‘How can we make it safer for my team so that we all go home to our families at the end of the day?’” he says.

▶ ***Watch to see more on how the reduction in rework helped the Victoria, Texas, facility achieve safety improvements. [Click here.](#)***



Local Citizen: *Debbie Johnson*

Community: *North Little Rock, Ark.*

**How I make sustainable progress possible:
*An engaged safety culture***



Championing a Culture of Safety

Debbie Johnson remembers her first day on the assembly floor of Caterpillar's Earthmoving Division facility in North Little Rock (NLR), Arkansas. "I can remember reminding people to put their earplugs in, and take their time and use the assembly platforms – expressing my concern that they get back safely to their families each day." It was obvious that Debbie needed to be the facility's Safety Champion, a role she has filled for the past three-and-a-half years.

In 2014, Debbie was awarded the Caterpillar Safety Star for her outstanding performance as Assembly Operations Safety Champion in creating a safer environment for all employees. The Safety Star is a program to recognize employees who have contributed in a significant way to their facility's safety initiatives.

When Debbie began as Safety Champion, she built upon the safety principles that had been well presented and emphasized during her initial assembly training. From the first day of the NLR Caterpillar operation (the days of digging dirt and assembling cabinets/desks), the Leadership Team built a foundation of Safety First. Building on the basics of this well-developed plan, we sought to establish a more visible and sustainable safety culture. She recalls, "In May of 2011, the operations group manager called me into his office and gave me a list of about 15 brief items. He said, 'This is my vision for safety. Let's start on a plan for safety.'

Debbie began to develop methods for achieving that vision, along with standards that could be used to identify, define and measure goals along the way. She also joined a team that helps identify root causes of incidents and implements actions to reduce the possibility of repeated hazards. "I make it my personal goal, each day," she says, "to make a positive impact on an individual, bringing them to the realization of the impact they have on their individual lives and the lives of others, just by making safe and rational decisions."

The challenge was to develop processes that would encourage participation, produce visible results and maintain a solid foundation of continued involvement. "We had to recognize that, even though we had a personal commitment to developing and maintaining a prestigious, sustainable safety culture, it would take the education, willingness and engagement of all individuals to actually make it happen."

Accordingly, Debbie set out to foster a contagious safety culture with the help of Caterpillar Safety Services and the Zero-Incident Performance (ZIP™) process. The facility recordable injury frequency results reflect the impressive progress on safety culture over that time – improving 89 percent from 2011 to 2014. And she continues to develop and introduce ways to increase the visibility, efficiency and sustainability of the safety culture at North Little Rock. "It is really satisfying to be linked, in some way, to basically everyone in the facility. We are dedicated to expressing the importance of taking individual responsibility for safety and to ensuring that Caterpillar families and friends know of our commitment to keeping one another safe."



Local Citizen: *Allen DeClerk*

Community: *Mossville, Ill.*

**How I make sustainable progress possible:
*A 70% increase in productivity***



Measuring What Matters

Insufficient compaction of soil in earthworks construction ends up costing big. Poor stiffness of soil, sand and aggregates (the building blocks of roads, building pads and bridge abutments) costs taxpayers billions of dollars per year in reconstruction and damage to vehicles. Additionally, roadway construction deficiencies contribute to the \$180 billion in annual costs to maintain the 4 million miles of U.S. roadways. Those poor road conditions are often tied to the materials they are sitting on.

In conversations with earthworks construction customers, Allen DeClerk, marketing consultant in Caterpillar's Advanced Components and Systems Division, heard the same point expressed again and again. The Intelligent Compaction (IC) systems on customers' compaction machines that monitor the level of compaction and tell the operator when sufficient compaction is achieved were greatly limited. IC methods only worked on high stiffness granular materials, and then only when the machine was operating in a vibratory mode.

Material on many work sites, however, includes sand or clay, or requires non-vibratory compactors. "On these sites," says Allen, "customers were forced to use manual measurement methods, essentially leaving the operator and site foreman 'flying blind' until work was halted for an inspection with special equipment." Furthermore, the time, cost and safety risk associated with inspection meant typically less than 1 percent of the total compacted area was actually measured for quality assurance. Clearly, better technology was needed to verify that design requirements were being met for the full range of materials used in road construction.

Allen began researching IC measurement methods for large static soil compactors. Of the measurement technologies evaluated, the power-train-based machine drive power (MDP) measurement method was chosen for continued development. Allen was the primary research engineer who set up the machine systems and worked closely with the customers to evaluate the measurement system. "Caterpillar's MDP system

works on the principle of rolling resistance," Allen explains. "For example, rolling a loaded wheelbarrow over concrete is much easier than pushing it through soft garden soil. This is because the concrete is stiffer and has higher load-bearing strength. This load-bearing strength of the soil is exactly what MDP measures, providing a truer indication of quality than conventional systems, which measure the reflected energy of a compactor's vibrating drum to estimate soil stiffness."

The benefits of MDP to the customer are substantial. "On specific customer projects, we have seen productivity increases in the compaction process, and corresponding CO2 emissions reductions, of up to 70 percent," Allen says. "When the customer uses the technology to better control their process, they have a better assurance that they are going to pass whatever verification is needed." The machine-based system has the added benefit of measuring 100 percent of the material being compacted, versus 1 percent or less with traditional, manual measurement methods. This results in a more uniformly compacted fill that ultimately leads to improved service life of the constructed asset.

"I am extremely proud of the whole team that worked to bring the technology to market," says Allen. "For me, the most satisfying aspect of this project was uncovering a customer need that was not widely recognized at the time, and leading the industry with an innovative solution to meet that need. Seeing the technology from research through production will be the high point of my career."

Local Citizen: *David Stansel*

Community: *San Diego, Calif.*

**How I make sustainable progress possible:
*A 60% reduction in NOx emissions***



Knocking Out NOx Emissions

David Stansel has spent a lot of time rolling along remote Canadian roads to conduct field trials of the combustor liners for Solar Turbines' SoLoNOx™ gas turbines. His mission was in cooperation with a Solar customer who operates gas transmission lines throughout Canada, involving scores of gas turbines from many manufacturers.

David, now group manager of SoLoNOx™ sustaining combustion engineering, was in Alberta to learn how the Mars ABC combustor liner performs in places where the temperatures fluctuate greatly. "In the summer we saw moose and deer, miles of grain fields and forests. In the winter, the place was bitter cold and covered in snow – perfect for demonstrating product performance and robustness at conditions we never see in our San Diego headquarters," says David. "The operators told us about the reliability and trouble-free operation of our equipment, which is a key product requirement, along with the improved local air quality that is helping to preserve the beauty of these remote locations."

The SoLoNOx system uses lean-burn technologies to reduce NOx emissions. SoLoNOx turbine systems convert fossil fuels into useful work or electricity. By improving combustion technology, Solar is able to do this with a much smaller impact on the environment in the form of NOx emissions and without the need for additional exhaust gas control measures. The SoLoNOx system has been installed on more than 3,000 turbines, and most of Solar's current engine models can be equipped with the improved system.

"It's a pretty significant accomplishment that the new system emissions levels are expected to be better than 60 percent below previous levels," says David. "I am gratified to visit customers and hear about how reliable the new system is; it just works right."

The engineering behind the technology, however, was not without its challenges. One technical challenge was to keep the metal walls of the combustor liner cool enough while minimizing the amount of cooling air that would flow into the combustion space and disrupt the chemical reactions. The solution turned out to be a combination of a thin layer of ceramic coating on the hot side of the metal wall and the process of completely cooling the backside of that wall. The team leveraged experience from previous efforts and conducted extensive heat transfer calculations and tests to achieve the final design.

"I love being able to deliver what customers desire," David says. "We have a great team that accomplished a really successful program. We feel good knowing we are making a difference and helping our customers to make a difference too. There is also a sense of satisfaction in knowing that our hard work results in fewer NOx emissions."



Local Citizen: *Mattias Hansson*

Community: *Gothenburg, Sweden*

**How I make sustainable progress possible:
*A customer-reported 30% gain in
fuel efficiency***



Propelling More Value Toward Customers

For an inventor, perhaps the biggest thrill is for your design to perform even better than you imagined. Mattias Hansson knows the feeling. He is a naval architect and one of three inventors, including Bjørnar Helgesen, SMG, and Bjørn Moving, OMT, who together in close cooperation, designed and developed Caterpillar Marine's new twin fin propulsion concept, which brought home the 2014 Technical Innovation Award from the Seatrade Maritime Awards in Dubai. "It was challenging to introduce something new that didn't exist in the market, as well as to develop new processes," says Mattias.

The twin fin system was initially developed as a solution to make vessels operating in Arctic conditions less vulnerable to damaging the propulsion system. For modern offshore vessels, thrusters and propellers are the most common diesel electric propulsion system. As vessels are increasingly deployed in more remote and harsh operating environments, however, wear and dynamic loads too often lead to unexpected breakdowns. Repairs usually require heading to dry dock, resulting in significant downtime and costs.

Conventional diesel-electric or diesel mechanical propulsion systems can be more reliable than thrusters and propellers. In this case, however, the gear, shafts and machinery take up valuable space inside the vessel,



while retrofitting is difficult and time-consuming. Mattias and his team were able to devise a solution that combined the best aspects of both traditional propulsion systems. "Originally, we were only looking for the safety and protection angle – to protect the twin fin propulsion system in harsh conditions," says Mattias. In combination with the compact hydrodynamically optimized and tailor-made fins, we also realized that we could utilize larger, slow-turning propellers operating at high-pitch setting in order to increase the total propulsive efficiency. On top of that, we could minimize the mechanical losses in the components by using a short drive shaft having only one stern tube bearing. Depending on the vessel's draft limitations, the fins can be shaped and positioned based on the calculations/simulations either above or preferably below baseline, allowing even larger propellers. With the wide Cat® and MaK™ engine system portfolios, we are able to find the optimum solutions to increase the total efficiency on the entire vessel.

Twin fin will be tailored, in close cooperation with our clients, depending on the vessel requirements, purpose and operational profile. The system provides an efficient concept that features a built-in condition monitoring system and a closed-water lubricated stern tube solution. Major equipment is accessible from inside the vessel to avoid dry-docking, and the combined effect is that the fins provide extra cargo space and increased buoyancy as well as improved maintenance capability. Because all equipment is contained within the external fins, twin fin is applicable to both new builds and retrofits, where it replaces existing propulsion.

Propelling More Value Toward Customers *(continued)*

The first twin fin installation was a retrofit on a seismic survey vessel earlier in 2014, replacing existing azimuth thrusters. The ship reported no reliability problems, a 30 percent gain in fuel efficiency and performance improvement of 84 percent in bollard pull thrust during seismic conditions. These benefits are expected to boost the customer's revenue by approximately \$3.3 million per year. Through prefabrication, the retrofit could be accomplished within a 45-day yard stay and with minimum conversion of existing equipment. The customer reports this is approximately one-third of the time taken for comparable retrofits of propulsion. We look forward to retrofitting a sister vessel.

Mattias and his team couldn't ask for better results. "Caterpillar and our partners have done a great job performing at the highest level, turning this concept into reality to maximize uptime, minimize overall running costs and provide a solution that minimizes life cycle costs for our customers and improves the environmental footprint."

▶ ***For more about the new twin fin concept and Polarcus seismic vessel retrofit. [Click here.](#)***

Local Citizen: Maheswaran Govindan

Community: Tamil Nadu, India

**How I make sustainable progress possible:
The elimination of 3,000 metric tons of
CO2 emissions**



Black Belt Delivers Blow to Energy Waste in Thiruvallur

6 Sigma Black Belt Maheswaran Govindan had his work cut out for him. As project lead and change agent for a major electric power conservation project at Caterpillar in Thiruvallur, India, Maheswaran and his team were charged with finding better ways to monitor and significantly reduce the facility's overall power consumption.

The team began by evaluating a day in the life of the facility. "It was soon apparent that the potential for energy reduction improvements was not confined to a single area, but could be implemented across the entire facility," says Maheswaran. He and his team reviewed the value streams and targeted the inefficiencies. One finding: power usage was not well correlated with work schedules, which are based on fluctuating demand. In addition, they found unnecessary energy consumption by water pumps, air compressors, security lights and other equipment during nonproduction hours.

Armed with their findings, the team used statistical modeling and analysis to identify improvement opportunities in energy conservation. "We implemented everything – from volume-based work schedules, shift operations and office usage to minimized lighting requirements to reductions in power consumption to increased utility equipment efficiency," explains Maheswaran.

The results were dramatic. By the end of 2014, these initiatives had already avoided 3,000 metric tons of CO2 emissions and saved the plant more than \$234,000.

The positive results from his team's hard work speak for themselves, but Maheswaran is especially gratified to see that the impact of the project runs even deeper. "What brings me perhaps the most satisfaction is the cultural change these adjustments have made in the energy conservation approach of the entire team at Thiruvallur."



Local Citizen: *Roelf Koster*

Community: *Rotterdam, Netherlands*

**How I make sustainable progress possible:
*A 90%-plus energy utilization efficiency***



CHP Greenhouses Make Growing Even Greener

Today, more than 24,700 acres of vegetables and flowers are growing under glass roofs in greenhouses in the Netherlands, and, increasingly, combined heat and power (CHP) power plants with gas engines generate the energy they need. CHP is an efficient approach to generating electric power and recovering useful thermal energy from the engine waste heat simultaneously, and recovering CO2 emissions for use as a plant nutrient.

CHP greenhouse power plants with gas engines first took hold in the Netherlands, and then in neighboring Belgium, in the 1970s and 1980s. Now, Roelf Koster, sales manager at MWM Benelux B.V., a wholly owned subsidiary of Caterpillar Energy Solutions GmbH, helps growers beyond the Netherlands to produce tomatoes, peppers, cucumbers, flowers and more in greenhouses that are more efficient than ever before. In the last five years, MWM Benelux delivered CHP plants for greenhouses to growers in Germany, Greece, Ireland, Russia and Spain.

Greenhouses are typically a family business and frequently decisions are made by the grower and their family at their kitchen table. Roelf has spent numerous hours consulting and in commercial negotiations with greenhouse owners, and he has learned much about greenhouse operations, crop growing, crop marketing and installation techniques for all equipment in the greenhouse. This knowledge is necessary



for fully understanding the complex energy needs of a greenhouse crop. "This is a very exciting business to be in," says Roelf. "While we try to standardize our product offering, in practice every CHP project is almost 'custom-made' to fit a specific greenhouse in a specific location, so delivering a solution for these unique technical and commercial needs of a particular greenhouse grower is very rewarding."

The needs of growing plants are relatively simple. Besides sunlight, growing plants need warmth, water, nutrients and CO2 to thrive. Traditionally, growers run natural gas boilers to heat water and keep the roots of their plants warm, and use electricity from the grid to run grow lamps, pumps and other equipment. With CHP systems, MWM is helping change the model of how modern greenhouses function.

Bearing little resemblance to a typical farm, modern large greenhouses are, in reality, complex, high-tech factories that produce food and other crops. A natural gas Cat® or MWM™ generator set produces electrical power for the greenhouse needs, and any excess electricity can be sold to the utility company and fed back to the grid. The extra heat from the engine is collected to keep the greenhouse warm and heat water that is also stored in large tanks to continue warming the plants throughout the night. Meanwhile, the CO2 in the exhaust from the generator set – traditionally emitted to the atmosphere – is purified and cycled back into the greenhouse air to fertilize the plants during the day. In addition to the benefits from CHP, if there is enough rain, in modern greenhouses the rainwater can be 100 percent recycled, so growers use only the water that falls on their roofs. The water is continuously used and reused, cleaned and cleaned again, for all these applications. What

CHP Greenhouses Make Growing Even Greener *(continued)*

was once considered waste is now useful inputs – yielding efficient energy production and CO₂ fertilization.

The benefits of CHP systems and CO₂ fertilization with gas engines in greenhouses are clear – less waste and lower heating, electricity and CO₂ production costs, to name a few. Modern CHP systems with gas engines deliver total energy utilization efficiencies of over 90 percent. In greenhouses, the potential yield is very efficient, as well – for example, a greenhouse tomato grower can obtain about 15 times more pounds per acre than would be possible in an open field. That's more food in less space – and it can be grown locally year-round, even in the coldest winter. Typically, vegetables and flowers from a greenhouse are exceptionally consistent in shape and size and have clean surfaces free from outside dust and insects. As the security of the food supply becomes an increasing concern, this level of efficiency and product quality is a benefit for greenhouse growers and consumers.

For Roelf and others involved in promoting CHP generation in greenhouses, it's satisfying to be part of an industry that's making a difference. Roelf notes, "Natural gas-driven CHP plants use our precious natural resources in an efficient way. It is, indeed, best-in-class energy conservation."

Though he finds the customer relationship-building part of his job to be most satisfying, Roelf also appreciates its role in making sustainable progress possible. "For a growing population, our activities make sense!" As Mauricio Lopez, a marketing professional in our North American organization notes, "It's great, as a Caterpillar employee, involved in greenhouse CHP projects, to open my refrigerator and show my family the results of my work. It's even greater to know that our CHP equipment helps to produce these shiny, great-looking, delicious tomatoes and mini-cucumbers, while also efficiently generating power and using CO₂!"

Local Citizen: Brad Tilly

Community: Peoria, Ill.

**How I make sustainable progress possible:
The reclamation of 730 acres**



Restoring Mining Fields to Nature

Pheasant, grouse, deer and an occasional soaring eagle are among the diverse wildlife that make their home in the 730-acre Coal Lake Wildlife Management Area near Underwood, North Dakota. Public access to the area allows local hunters, fishermen and other outdoorsmen to enjoy pristine Coal Lake, surrounded by woody ravines, wetland and native grassland habitats, as well as fields of crops and hay.

Twenty years ago, this land was a very active part of what is still a significant coal mining operation. Today the coal mining in this area is complete and, as a result of the detailed reclamation project in their long-term mine plan, Caterpillar customer Falkirk Mining Company, a subsidiary of the North American Coal Corporation, in partnership with its customer, Great River Energy (GRE), has reclaimed the mined land and has donated it back to the people of North Dakota in a similar or better condition than before they mined it back in the 1990s.

North Dakota, with its coal mining operations and its thriving oil and gas production in the Bakken region, is a focal point in the U.S. boom in energy independence. With a fleet of Cat® machines supported by Cat® dealer Butler Machinery, Falkirk delivers approximately 8 million tons of coal annually to GRE's nearby power plant — a co-op that uses coal to generate electricity that serves several states, as far away as Minnesota and Wisconsin.

Cat® equipment is involved throughout the entire mining process, including the reclamation work. Brad Tilly, Caterpillar's North American Coal Global Account manager, is proud to be part of this thriving customer team that includes many Cat® dealers around the country.

"Our relationship with North American Coal and Falkirk is really strong," explains Brad. "We're very interested in providing the best experience to Falkirk and North American Coal, and we know that they're interested in making sure it's a good relationship for Caterpillar and our dealers."

In the mining process at Falkirk, Cat® equipment is used to remove topsoil and subsoil and preserve it for land reclamation. The coal lies under the remaining overburden, about 60 to 120 feet under the surface. After the coal is removed and the mining in a particular area is completed, the steps are reversed to replace the native soil layers, seed the area, and reclaim the land. Although grading the replaced soil to a flat surface would be much easier, many additional hours and special care are taken to preserve the trees and to sculpt the land back to its approximate original topography. That's where the superior handling of Cat® machines and advanced technology makes a tremendous difference in restoring the land to same-or-better condition than before mining took place.

Restoring Mining Fields to Nature *(continued)*

In 2014, this reclaimed piece of land became part of a specific win-win solution for the region. When two highways were widened in the 1970s, the North Dakota Department of Transportation (DOT) agreed to offset that land use by managing the highways' right of way as wetlands and wildlife habitat, essentially closing over 8,000 acres to haying. The decision by Falkirk and GRE to donate the 730 acres to the DOT allowed the agency to take the final step in a plan to return the right of way land to the farmers who live along the highway, essentially exchanging the donated land for its equivalent.

Caterpillar is committed to supporting all of our customers as they provide jobs and produce energy. But we're always looking for ways to help our customers. As Brad notes, "At Caterpillar, of course we have machines and parts, and the dealer provides the service, but I think we go a step beyond."

▶ ***Watch and learn more about the Coal Lake Wildlife Management Area and Caterpillar's role in reclaiming mined land. [Click here.](#)***

Local Citizen: *Monica Salles*

Community: *Piracicaba, Brazil*

**How I make sustainable progress possible:
*The protection of endangered forests***



Bridging Gaps in the Brazilian Rainforest

An investment in environmental sustainability is likewise an investment in our quality of life. That's the message that Monica Salles, Caterpillar Corporate Responsibility consultant, communicates often in her work with the ConBio Campo Largo project in southern Brazil. The objective of the two-year initiative is to preserve green, urban areas and protect endangered forests in Brazil, as well as improving public understanding of conservation. Funding is provided through a \$500,000 grant from the Caterpillar Foundation, and the program is executed via a partnership between the Pan American Development Foundation (PADF), a hemispheric development organization and SPVS – Society for Wildlife Research and Environmental Education (Sociedade de Pesquisa em Vida Selvagem e Educação Ambiental), a traditional Brazilian conservation organization.

ConBio operates in the Atlantic Rainforest biome, which ranges along almost all of the Brazilian coast and into portions of Paraguay and Argentina. "This biome has almost disappeared," says Monica. "Less than 7 percent of the original biome remains, much of the area in small, degraded patches."

Connecting the local Campo Largo community with its urban green areas is key to ConBio's success. The project brings together a network of students, teachers, property owners and employees from Caterpillar.



Then it provides educational activities that emphasize the importance of maintaining biodiversity and its relationship to quality of life. What emerges is a collective sense of ownership and responsibility for environmental management and conservation of these vital spaces, as well as the tools and skills they need to do something about it.

Monica enjoys her role in bringing people together and empowering them to make a difference. "There's a lack of media coverage around positive environmental initiatives," she says. "We see news about every environmental disaster, but positive news about good practices, like those addressing conservation of biodiversity, are rare. So it's important for us to support environmental education and conservation of our native plants and species."

The good news for Campo Largo is evident in a better quality of life for all members of the Atlantic Rainforest, both flora and fauna. In improving the quality of the ecosystem, the project enables improved air quality, pollination, more fresh water and the return of animals, birds and plants to green areas where key native species like the Araucaria evergreen are being preserved.

Bridging Gaps in the Brazilian Rainforest (continued)

Caterpillar knows that environmental sustainability doesn't end with a project – it's a philosophy and a core value. Caterpillar executives demonstrate this when they visit Campo Largo. Nobody leaves without planting a tree. "I'm proud to be a part of this project," Monica concludes. "When I see Caterpillar and the Caterpillar Foundation support projects that work toward the common good and a more sustainable future for all, it confirms our legacy of being good citizens wherever we are."

FAMILY DAY IN BRAZIL GROWS TO INCLUDE TREE PLANTING



Our EMD locomotive manufacturing facility in Sete Lagoas, Minas Gerais, Brazil, turned a family day event into an opportunity to plant native trees. Minas Gerais lies in one of the most biodiverse regions of Brazil, including savanna, semidesertic and rocky highlands areas. Employees and their families took part in "Our Green House," helping to plant some of the more than 100 seedlings to enhance the grounds. The trees also provide shady areas for Caterpillar employees to enjoy. In addition to planting trees, the day gave employees' families the opportunity to watch presentations about Caterpillar, as well as tour the facility and the interior of a locomotive.

Local Citizen: Frank Li

Community: Beijing, China

**How I make sustainable progress possible:
Higher productivity in the supply chain**



Developing Suppliers with a Long-Term Mindset

When Frank Li moved to procurement for Caterpillar Asia Pacific, most of his suppliers were smaller-sized facilities. Fifteen years later, some of these suppliers are leaders in the region, while others are becoming world-class suppliers. Frank views this as the best part of his job. “In working with our supplier base, I see them grow every day. I’ve seen great results from working with local suppliers – Caterpillar and the local community both benefit from the suppliers’ success.” And suppliers benefit from our success. But to achieve this, collaboration is critical.

As segment manager for fabrications and non-metallics, Frank identifies training and development opportunities from the supply base and then works with various teams within Caterpillar’s Global Supply Network Division to identify solutions. Examples include the Caterpillar Production System for Suppliers (CPS4S), which teaches suppliers how to integrate the same efficiencies that Caterpillar does in its facilities; lean principles; scheduling training for welding or painting; 6 Sigma Black Belt or Advanced Product Quality Planning (APQP) training for staff and first-line supervisors; and a Leadership Excellence in Accountability and Development (L.E.A.D.) core program for core supplier senior managers.



Frank provides coaching to the supplier base as well, often during regular supplier performance reviews and site visits. In the past few years, the nature of that coaching has shifted. “Previously our main effort was to train suppliers on quality control and technical compliance,” Frank notes. “Now they know how to make a qualified part, understand computer-assisted design and have basic quality-control tools. What they need now is coaching on the ‘soft’ side – employee development, leadership and project management.” He adds, “As our suppliers grow, and our expectations grow for them to supply regionally or globally, they need to ensure they have the right people management systems in place, and they need to be able to replicate their processes consistently in multiple facility locations.”

In addition, labor costs are increasing and environmental regulations are becoming stricter in China. Efficiency must improve in order to increase production with the same resources. Since it was introduced to suppliers in China four years ago, CPS4S has helped them use current resources to reduce waste and be more efficient.

That’s also long-term thinking. China’s development has been so rapid that many manufacturers have focused on the short term. In contrast, Frank encourages suppliers to look ahead, and that philosophy has paid off. “Throughout the slowdown that China has been experiencing over the last few years,” Frank observes, “we have maintained stability in our supply chain because, right from the beginning of our relationship, we teach our suppliers to plan ahead for the long term. They’ve learned from experience that they and their communities have room to grow with Caterpillar.”

OUR APPROACH

MISSION

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

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 an environmentally sustainable way and a company that improves the quality of the environment and the communities where we live and work.

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 sustainable development goals.

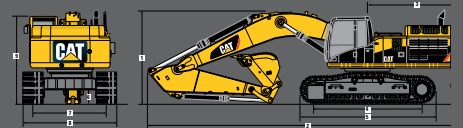
Business Overview

For 90 years, Caterpillar Inc. has been making sustainable progress possible and driving positive change on every continent. Customers turn to Caterpillar to help them develop infrastructure, energy and natural resource assets. With 2014 sales and revenues of \$55.184 billion, Caterpillar is the world's leading manufacturer of construction and mining equipment, diesel and natural gas engines, industrial gas turbines and diesel-electric locomotives. The company principally operates through its three product segments – Construction Industries, Resource Industries and Energy & Transportation, and also provides financing and related services through its Financial Products segment.

3+ MILLION UNITS

ANY JOB SITE



MAJOR PRODUCT GROUPS INCLUDE:

ARTICULATED TRUCK COMPACT TRUCK & MULTI-TERRAIN LOADER DRAGLINE DRILL ELECTRIC ROPE SHOVEL ENGINE GENERATOR SET HIGHWALL MINER	HYDRAULIC EXCAVATOR HYDRAULIC SHOVEL LOCOMOTIVE MARINE PROPULSION SYSTEMS MOTOR GRADER OFF-HIGHWAY TRUCK ON-HIGHWAY TRUCK PIPELAYER SKID STEER LOADER TRACK EXCAVATOR	TRACK LOADER TRACK-TYPE TRACTOR TUNNEL BORING TURBINE WHEEL DOZER WHEEL EXCAVATOR WHEEL LOADER WHEEL TRACTOR-SCRAPER WORK TOOLS AND ATTACHMENTS
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MAJOR AREAS AND INDUSTRIES SERVED

- AGRICULTURE
- CONSTRUCTION
- CUSTOMER SERVICES
- DEMOLITION AND SCRAP RECYCLING
- ELECTRIC POWER GENERATION
- FINANCING
- FORESTRY
- GOVERNMENTAL & DEFENSE
- INSURANCE
- LANDSCAPING
- LOCOMOTIVE & RAILWAY
- MAINTENANCE AND REPAIR
- MARINE
- MATERIAL HANDLING
- MINING
- OEM SOLUTIONS
- OIL & GAS
- PAVING
- PIPELINE
- POWER PLANTS
- QUARRY, AGGREGATES AND CEMENT
- REMANUFACTURING
- RENTAL
- SAFETY
- TECHNOLOGY & SOLUTIONS
- TRAINING
- WASTE

GLOBAL TEAM

visit www.caterpillar.com/brands



TO VIEW OUR PORTFOLIO OF BRANDS



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 2014 Sustainability Report, and build on the themes and results described in our 2013 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 2014 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 supply chain 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 (GHG Protocol) "operational control" approach. Caterpillar is headquartered in Peoria, Ill., USA.

Key sustainability aspects

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."

Identification of relevant aspects

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.

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 was conducted of our customers, employees, stockholders, dealers, suppliers, nongovernmental organizations, trade organizations and academia. 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.

About this Report (continued)

Validation 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, our internal Sustainability Council, 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 aspects

While stakeholders universally agreed that all 35 aspects identified were of importance, the process enabled Caterpillar to prioritize the nine aspects described below. These aspects primarily focus on the impact of our products while in use by our customers, the operation and success of our business, and the safety of our employees and customers. Although these aspects are specifically identified in this report, we recognize that priorities will vary by Business Unit and by region. We are committed to continuing to report on other aspects as well – in particular, the environmental impacts of our manufacturing operations.

About this Report (continued)

Caterpillar Key Aspects

Key Aspect	Definition	Report Content
Business Ethics and Core Values	<i>Provide a global culture guided by business ethics and Caterpillar's Values: Integrity, Excellence, Teamwork, Commitment and Sustainability, including a Code of Conduct to avoid instances of corruption, unethical behavior, bribery, extortion and anti-competitive behavior.</i>	<ul style="list-style-type: none"> • Governance & Ethics
Strategy	<i>Establish an overall vision and strategy for the short term, medium term and long term, particularly with regard to managing the significant economic, environmental and social impacts, risks and/or opportunities with respect to Caterpillar's operations and products.</i>	<ul style="list-style-type: none"> • Vision & Mission Strategy • Chairman's Message
Financial Performance of the Enterprise	<i>Maintain healthy economic performance of Caterpillar, including revenue, supply chain, demand for products and services, access to capital, stockholder value and operating costs.</i>	<ul style="list-style-type: none"> • Year in Review: Performance
Product Performance – Customer Health & Safety	<i>Provide for and promote the safety and health of Caterpillar customers' operating products/equipment through product design/engineering, training and solutions specific to job sites.</i>	<ul style="list-style-type: none"> • Product Stewardship: Customer Health & Safety
Product Performance – Energy Efficiency/GHG and Other Air Emissions	<i>Establish more energy-efficient Cat® products and, as a result, contribute fewer greenhouse gas and other air emissions to the environment (e.g., Tier 4, fuel efficiency, fuel diversity).</i>	<ul style="list-style-type: none"> • Product Stewardship: Customer Sustainability • Energy & Climate
Product Performance – Development for the Life Cycle	<i>Develop Cat products using designs, processes, and materials that emphasize quality and ability to be remanufactured, rebuilt, reused or recycled.</i>	<ul style="list-style-type: none"> • Product Stewardship: Circular Flow Materials
Dealer Network	<i>Engage and work with our independent Cat® dealers to enable them to effectively build and maintain customer relationships and improve efficiency and performance of products and services to meet the needs of a global customer base.</i>	<ul style="list-style-type: none"> • Dealer Network
Innovation Management	<i>Develop systems that enable Caterpillar to achieve innovative product and process breakthroughs such as integration of information technology systems (e.g., GPS, remote monitoring, autonomy) and technologies that improve energy efficiency, emission reductions and carbon capture and storage.</i>	<ul style="list-style-type: none"> • Product Stewardship • Feature Stories
Employee Occupational Health & Safety	<i>Provide for and promote the health and safety of Caterpillar's global employees and contractors, as measured by avoidance of recordable incidents/fatalities/lost days/absenteeism.</i>	<ul style="list-style-type: none"> • Workforce Health & Safety



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 the sustainability of 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 team.

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.





The Value of Sustainability Leadership

Compliance with all applicable regulatory requirements is always a minimum expectation for Caterpillar employees. However, if we focus only on meeting requirements imposed by external interests, we may fail to consider innovations that could be more effective. Caterpillar is committed to working with our employees to develop proactive options for enabling sustainable progress. This sustainability report focuses on contributions that employees have made to sustainability leadership that have led to community improvements, environmental benefits and compelling business prospects.

This report demonstrates how multiple benefits can be achieved by operating more sustainably for our stakeholders, including employees, customers, dealers, and the communities and environment where we work and live. These benefits include:

Environmental Stewardship Benefits

- Reduced emissions, by-products and wastes
- Preservation of resources for future generations

Social Responsibility Benefits

- Reduced hazards and enhanced safety conditions
- Better quality of life in our communities
- Improved career opportunities for our employees

Economic Growth Benefits

- Reduced resource use and costs
- Improved life cycle benefits and minimum cost of ownership to our customers
- Improved reputation and market differentiation

We recognize that the constraints placed on our planet's resources are increasing and we are committed to being a global leader, driving sustainable progress. Our products, services and solutions are deployed at the forefront of many of the world's biggest challenges. They are used to construct community infrastructure that improves access to water, sanitation and transportation. They are used to extract all types of resources ranging from minerals to timber, and they are used to restore the lands when extraction is complete. Our power generation products provide energy access to people around the world. Our combined heat and power systems are up to twice the efficiency of conventional power grids. Our products use diverse fuels, including fossil fuels and renewables such as biofuels and biogas generated from landfills, livestock operations and wastewater treatment.

We hope that this report will inspire you to pursue your own sustainability initiatives. Now that Sustainability is elevated to a Value at Caterpillar, we will unleash the talents and passions of our employees all over the world to enable sustainable progress. Doing so will produce great benefits for our communities, our environment and our company, and leave an enduring legacy that we all can be proud of.

Finding ways to address our planet's constraints that are both good for business and good for our communities can be an overwhelming challenge. Some of the problems may take a very long time to fix. That's precisely why Sustainability is ***the power of endurance***.



External Advisors & Comments

Our thanks to the advisory council of experts who 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. Comments below are advisory in nature and do not necessarily reflect corporate policy.

Luke Danielson

President, Sustainable Development Strategies Group

Bruce M. Everett

Professor of International Business, The Fletcher School, Tufts University

Bradley Googins

Professor, Carroll School of Management; Former Executive Director, Center for Corporate Citizenship, Boston College

“In an era where unpredictable, unthinkable and even unknowable characterize the new operating environments for global corporations, creating sustainable strategies, engaging communities and co-creating breakthrough solutions to social and environmental issues are the hallmarks of successful companies.”

Stuart L. Hart

S. C. Johnson Professor Emeritus, Cornell University; President, Enterprise for a Sustainable World

Thomas Lovejoy

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

“Looking ahead, it is very clear that a sustainable future is not just about protecting current ecological assets and managing them sustainably; it also must encompass restoration. Restoration of ecological systems brings multiple benefits, including climate change mitigation, and represents a significant business opportunity for Caterpillar.”

Mark B. Milstein

Clinical Professor of Management and Director, Center for Sustainable Global Enterprise, Cornell University

William R. Moomaw

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

William A. Wallace

Lead Designer, Institute for Sustainable Infrastructure, Envision™ Sustainable Infrastructure Rating System; Past President and Member of the Governing Board, Engineers Without Borders – USA

“Caterpillar is in an excellent position to help communities adapt and become more resilient in the face of increasingly scarce resources and a changing environment. In these times, Caterpillar needs extraordinary flexibility: the capability to continually realign their products, services and supply chains in response to these new, and frankly daunting, challenges.”

Durwood Zaelke

President, Institute for Governance & Sustainable Development

“I am very pleased that Caterpillar has elevated Sustainability to be one of its core Values. This level of dedication will benefit both the corporation and the communities where it operates. All corporations must adhere to an ethic that strives above and beyond the interests of its shareholders if we are to create a healthy, sustainable society.”



Affiliations and Investments

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 national security challenges.

bcse.org

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.

businessroundtable.org

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.

dieselforum.org

Dow Jones Sustainability Indices

Included for 13 years; sector leader 2006, 2007, 2008 and 2010.

sustainability-index.com

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.

energytechnologies.co.uk

ONE Campaign

The Caterpillar Foundation invests with ONE, an international campaigning and advocacy organization of more than 6 million people taking action to end extreme poverty and preventable disease, particularly in Africa.

ONE.org

Opportunity International

The Caterpillar Foundation invests in Opportunity International to provide microfinance loans, savings, insurance and training to over 4 million people working their way out of poverty in the developing world.

opportunity.org

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.

remancouncil.org

The Nature Conservancy

The Caterpillar Foundation and the Nature Conservancy formed the Great Rivers Partnership project in 2005, aimed at preserving and protecting the world's great rivers.

nature.org

Tropical Forest Foundation

The Caterpillar Foundation began investing in the Tropical Forest Foundation in 1990. The Tropical Forest Foundation works to advance environmental stewardship, economic prosperity and social responsibility through sustainable forest management.

tropicalforestfoundation.org

United Nations Foundation

The Caterpillar Foundation invests with the United Nations (UN) Foundation, supporting multiple programs. This strategic support includes the Global Alliance for Clean Cookstoves to teach women in Africa about the dangers of traditional cooking and the benefits of adopting clean cooking solutions; +SocialGood, a global community movement made up of innovators, social entrepreneurs and thought leaders from more than 120 countries around the world working together to accelerate positive social change through technology and social media; and the Girl Up campaign and its role in providing American girls a voice in the global conversation about issues that directly affect the lives of girls in impoverished nations.

unfoundation.org

Affiliations and Investments (continued)

U.S. Green Building Council

Caterpillar has been a corporate member of the U.S. Green Building Council (USGBC) since 2007. The USGBC provides information, tools and training on how to design, build and operate more sustainable buildings.

usgbc.org

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.

woodybiomass.net

World Food Programme

The Caterpillar Foundation invests in the World Food Programme, the world's largest humanitarian agency, to fight hunger worldwide, delivering food wherever and whenever it is needed most.

wfp.org

World Resources Institute

Caterpillar is represented on the board of directors of the World Resources Institute, an environmental organization that goes beyond research to find practical ways to protect the earth and improve people's lives. The Caterpillar Foundation supports the World Resources Institute 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.

wri.org



FOCUS AREAS

Caterpillar currently operates in more than 180 countries worldwide and in 2014, 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.

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 key stakeholders. Read more about the assessment on pages 22 to 24.





Workforce

Improving quality is a key sustainability principle at Caterpillar. Traditionally, this applies to the quality of the processes, products, services, solutions and safety practices used throughout the enterprise. However, it also applies to the quality of life for our employees, as well as the quality of life for members of the communities where we operate.

Our employees have always been the backbone of Caterpillar's success. They provide the vision, creativity and hard work required for our businesses to be marketplace leaders. That is why we are focused on providing a workplace that values safety, talent, drive and diversity, and one in which our employees can bring a variety of skills, ideas and experiences together in a supportive environment.

We promote the health and safety of everyone on our property with policies and proactive programs that help individuals safeguard themselves and their co-workers. We develop our products, manufacturing processes, training programs and customer assistance programs to minimize safety risks. We understand and accept the uniqueness of individuals and welcome and value differences, unique talents, skills, abilities, cultures and experiences. The safety of our operations and the unique capabilities of our employees ensure the long-term sustainability of our enterprise.

To help create such an environment, we leverage our global reach, values and transformational impact.

OUR GLOBAL REACH

Executing Caterpillar's strategic vision requires hiring and retaining the best people, which is why we are focused on providing employees with significant and long-term career opportunities. Our global reach provides employees with the ability to move between different business units, locations and products during the course of their careers. These opportunities, coupled with career development resources, make it possible to have a truly diverse and meaningful, long-term career within our organization. The long average tenure of our employees speaks to their satisfaction with career progression.

OUR TIMELESS VALUES

In 1974, Caterpillar first published a Worldwide Code of Conduct. Our Values in Action – Caterpillar's Code of Conduct – 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, our independent dealer network, our supply chain and our customers.

OUR TRANSFORMATIONAL IMPACT

Caterpillar provides the opportunity for employees to feel a part of products, services and programs that make a transformational, tangible impact – not only on their own community, but also on communities around the globe. Our employees, our customers and our products play an indelible role in developing countries and creating economic growth throughout the world. Our contributions range from helping provide basic infrastructure like roads, sanitation, airports and power to developing societies; to widening the Panama Canal and building the world’s superhighways. We play a part in some of the world’s most important transformational projects.

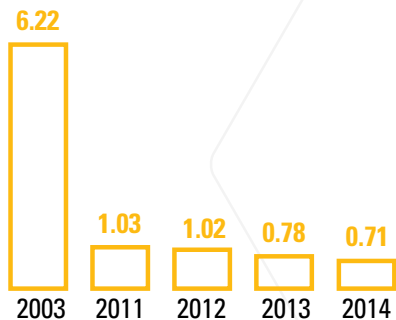
Safety

We are dedicated to the safety of everyone at Caterpillar, including our extended team: 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 Global Health & Safety team plays a key role in providing expertise and support to Caterpillar operations worldwide. Caterpillar Safety Services supports enterprise facilities, dealers, suppliers and customers by leveraging cultural assessment tools, guiding continuous improvement processes and providing a wealth of free, industry-specific safety resources. The *safety.cat.com* 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.™

0.71

Recordable Injury Frequency (RIF)¹
Recordable injuries per 200,000 hours worked



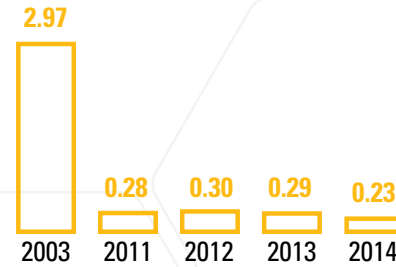
¹ Data prior to 2014 has been restated due to a) data updates realized from improved accuracy and b) updates to goal reporting format.

From 2013 to 2014, we continued to build upon a trend toward world-class performance in safety with a 9 percent reduction in Recordable Injury Frequency (RIF) and a 21 percent reduction in Lost-Time Case Frequency Rate (LTCFR).

In 2008, Caterpillar launched a global risk assessment initiative, focused on safety and ergonomic risk, which has resulted in the reduction of thousands of work elements that, using our standard, were considered high risk to medium or low risk, further driving the reduction in ergonomic and other injuries. Initiatives at many of our locations continue to drive our safety results.

0.23

Lost-Time Case Frequency Rate (LTCFR)¹
Work-related injuries resulting in lost time per 200,000 hours worked



¹ Data prior to 2014 has been restated due to a) data updates realized from improved accuracy and b) updates to goal reporting format.

At Caterpillar’s Material Handling and Underground Division facility in East Peoria, Ill. (EP), the facility focused on improving ergonomics. The facility needed to develop an effective means to evaluate injuries and current processes for ergonomic risk and injury history, and provide ergonomic information to our medical and workers’ compensation groups. Following a very successful pilot program, the ergonomic risk assessment tools developed by EP were added to the global ergonomics tool box, and Global EHS has begun to train other facilities to use the tools.

EP’s achievement began with a preliminary audit to identify triggers built into the daily process. Then, a project team conducted a general survey of work practices, using comprehensive ergonomic assessment tools to pinpoint and analyze the areas where the greatest risk existed and where most injuries were occurring or likely to occur. In 2014, EP rolled out its new ergonomic process, which includes training for manufacturing engineers, assistance for prioritizing areas of the value stream, support for initial assessments, follow-ups and ways to communicate these in clear language to get employees working together toward the goal of zero injuries. Nearly 100 assessments have already been carried out to identify risks. The value of the project is already evident: In 2014, post-pilot, there were zero lost-time injuries in the large-tractor assembly area, and an estimated 37 ergonomic claims were avoided, saving an estimated half million dollars.

With an added emphasis on cascading ergonomic education, it's not surprising that our employees often come up with the best solutions for the production challenges they face every day. At Caterpillar's Work Tools Division facility in Jacksonville, Fla., moldboards, or outsides of buckets, are manufactured by cutting the parts from a large metal plate, and then moved by hand through the forming process, using pry bars and force. As production has increased in recent years, the risk of injury from moving more plates also has increased.

Employees identified a machine that was previously used to push pins into fork frames and asked if they could experiment with a modification. Three weeks and less than \$1,000 later, the innovators had a solution. Now, one operator uses the machine's motor to guide the plate, while the other validates the plate's position. The new process reduced 36 manual movements to six, reduced cycle time by 67 percent and reduced the risk of ergonomic injury dramatically. The cycle time savings are about \$96,000 per year.

Another challenge is keeping Caterpillar workers safe while thoroughly testing our equipment to ensure customer safety. Our Global Engine Development – North America (GED-NA) facility in Mossville, Ill., for example, plays a critical role in testing the performance of diesel engines in secure test cells. Due to the original design of test cells and early engine test build technologies, personnel were required to enter the test cells to make manual adjustments while the engines were running. Although this practice was the industry norm, it presented the potential for injury to those employees inside the test cell in the event of a catastrophic engine or facility system failure. In rare instances this can result in flying debris, fire or hot fluid.

Despite the low probability of such failures, the leadership team set forth to change the practice of entering test cells when engines are running. Situations that required individuals to enter a test cell were first identified. The team determined that the technology designed into the newer engines coupled with improved testing capabilities, such as automated adjustments, thermal imaging cameras, leak detection



capabilities and particulate filter designs, could eliminate the need for operators to enter the test cell while engines are running. The new policies resulted in eliminating the need to enter a test cell, reducing the safety risk for our employees.

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

In addition, Caterpillar's Diversity and Inclusion initiatives are also exemplified in the work of the Caterpillar Foundation. The Caterpillar Foundation supports global endeavors that help drive economic stability, including programs for underrepresented groups, such as helping girls and women leave the path of poverty.

Caterpillar's diversity and inclusion progress has earned Caterpillar several accolades. In 2014 alone:

- *DiversityInc* magazine named Caterpillar to a pair of prestigious lists – "25 Noteworthy Companies" and "Top 10 Companies for Employee Resource Groups."
- Designation as a "Military Friendly Employer" in the U.S.
- Placed on Corporate Equality Index and Dow Jones Sustainability Index

EMPLOYEE RESOURCE GROUPS

To help us embrace diversity and inclusion at Caterpillar, we have established global Employee Resource Groups (ERGs) that are open to all employees. 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 as groups to serve the communities where they live and work, demonstrating their support of the U.S. Armed Forces, learning institutions, charitable organizations, crisis relief efforts, and cultural and artistic programs, to name a few. Members of an ERG also help sustain an engaged workforce at Caterpillar – as evidenced by members having consistently higher responses to questions related to engagement on the Employee Opinion Survey.

Talent Development & Benefits

As a single company with hundreds of global locations, and serving industries as varied as transportation, 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, tuition reimbursement programs, 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.



LOCAL TALENT DEVELOPMENT

In 2014, the Building Construction Products (BCP) Division was recognized for its efforts in developing people in its Athens, Ga., facility and multiple North Carolina facilities. Georgia Lt. Gov. Casey Cagle awarded the Athens facility with the 2014 Business Partner of the Year Award. This award recognized Caterpillar’s collaboration with various technical institutes, including the Athens Career Academy, Broad River Career Academy and Athens Technical College. North Carolina Gov. Pat McCrory awarded Caterpillar the Governor’s Award for Excellence in Workforce Development, Innovative Partnership for its Youth Apprenticeship Program in Sanford, N.C., and Pre-Apprenticeship Program in Clayton, N.C. This award honors organizations for outstanding contributions to the state of North Carolina’s workforce development goals.

CATERPILLAR UNIVERSITY

Our talent development efforts are led by Caterpillar University, which offers classes, e-learning and development opportunities to sharpen the skills of our employees, dealers and suppliers. Established in 2001, Caterpillar University now offers classes to our customers at Cat.com/catu.

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, which offers a comprehensive leadership development program, 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 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, provided leaders an opportunity to travel to growth markets such as China and Brazil, and to 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 repository 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 needs with their supervisor.

TUITION ASSISTANCE PLAN

The continuing education of Caterpillar employees is an important component of providing growth and development, and one that also sustains the company's talent pipeline. We encourage employee development and provide financial assistance for this purpose.

Collective Bargaining

As of Dec. 31, 2014, we employed 114,233 full-time persons of whom 63,419 were located outside the United States. In the United States, most of our 50,814 employees are at-will employees and, therefore, not subject to any type of employment contract or agreement. At select business units, certain highly specialized employees have been hired under employment contracts that specify a term of employment and specify pay and other benefits.

As of Dec. 31, 2014, there were approximately 10,400 U.S. hourly production employees who were covered by collective bargaining agreements with various labor unions, including The United Automobile, Aerospace and Agricultural Implement Workers of America (UAW), The International Association of Machinists and The United Steelworkers. Approximately 7,700 of such employees are covered by collective bargaining agreements with the UAW that expire on March 1, 2017 and Dec. 17, 2018. Outside the United States, the company enters into employment contracts and agreements in those countries in which such relationships are mandatory or customary. The provisions of these agreements correspond in each case with the required or customary terms in the subject jurisdiction.





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 20 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. We are providing products with leading integrated technology to various energy markets and leverage our technology and innovation to meet the world's growing energy needs.

Greenhouse gas (GHG) accumulation in the atmosphere is a major concern for many 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.

Caterpillar has established aggressive energy efficiency and GHG-reduction goals for our facilities. For our customers, job site fuel efficiency is strongly considered in our new-product development efforts, which contributes to reductions of GHG emissions. 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.

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 an environmentally responsible and sustainable manner.
- There is no one single solution to providing abundant, reliable, secure, clean 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 OPERATIONS

Caterpillar has 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. Our current uses of renewable energy sources were achieved through facilities’ installing renewable energy sources such as biogas and photovoltaics (PV), as well as the 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.

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 and 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.

ENERGY POVERTY

One of the biggest differences between a developing nation and a developed nation is 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 International Energy Agency, nearly 1.3 billion people, close to one-fifth of the global population, 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.

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, PV, tidal and others – will contribute to an energy portfolio that helps eliminate energy poverty, raise standards of living and propel 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 during the next several decades. According to BP, natural gas production, in addition, has increased 10 percent from 2008 to 2013 and over 1 percent from 2012 to 2013, 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.

Climate Policy

Caterpillar supports integrated carbon and climate policies that are both environmentally effective and economically sustainable. We understand that the most immediate and measureable benefits will occur through energy-efficiency improvements and corresponding greenhouse gas (GHG) emissions reductions.

The U.S. Environmental Protection Agency (EPA) has recognized Caterpillar with its ENERGY STAR Combined Heat and Power (CHP) Award. The honor followed the U.S. EPA's review of a global research facility in Spring House, Penn., which houses a highly efficient CHP system powered by a Caterpillar generator set, which can supply 60 percent of the annual power needed at the site.

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 efficiency and emissions-reduction technologies 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.

Through these activities, Caterpillar will continue making contributions to efforts designed to reduce GHG emissions.

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.

Business 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.

Although a comprehensive international approach should be the goal, we realize that action must also take place at a local level. Accordingly, 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. At each level, we support legislation that is both environmentally effective and economically sustainable, and 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 now established an intensity-based GHG-reduction goal that measures the efficiency of our growth.

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.

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

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

CARBON RESEARCH INVESTMENTS

Up to 25 percent of the world's land is now highly degraded due to deforestation, desertification, wetlands destruction and soil erosion, among others. The health and productivity of these lands must be

restored to help feed and support the additional 2 billion inhabitants who will occupy the planet by 2050. Carbon is a crucial element for ensuring the health and productivity of vegetation, ecosystems and soils. Consequently, removing carbon from the atmosphere and incorporating it into lands where it can help restore health and productivity offers a significant opportunity for sequestering carbon. The Caterpillar Foundation supports organizations such as the World Resources Institute, the Tropical Forest Foundation and the Nature Conservancy to help improve land and ecosystem health.

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 use of CCS technologies could reduce emissions from fossil fuel power stations by as much as 90 percent.

To accelerate the deployment of new, low-carbon energy technologies, ETI has an \$80 million per year 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. 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.

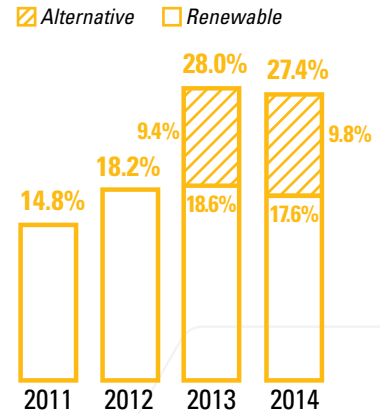
Additionally, we serve as project advisors to the Midwest Geological Sequestration Consortium. From 2012 to 2014, the integrated CO2 storage project in Decatur, Ill., successfully demonstrated large-scale, deep saline geological storage of 1 million metric tons (1.1 million U.S. tons) of CO2. The project is in the three-year post-injection period, with scheduled conclusion in 2017.

Energy Performance

Operational energy intensity decreased 28 percent from 2006 to 2014. 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 combined heat and power. In 2014, 27.4 percent of our electrical energy was from renewable or alternative sources.

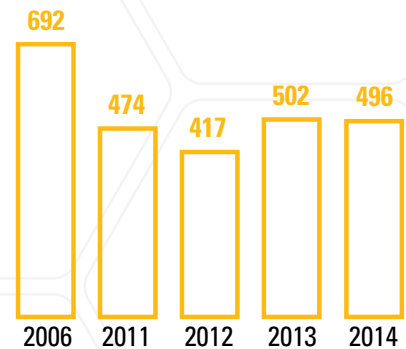
27.4%

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



496

Energy Intensity¹
Absolute gigajoules energy use/
million dollars of revenue



¹ Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

The strides made in areas of energy efficiency and alternative energy have allowed us to rethink and restructure the ways we're using energy in our facilities. For example, as part of an ambitious waste and energy-efficiency project, Advanced Components & Systems Division – Joliet Hydraulics, set a goal in 2014 to reduce power and gas usage by 10 percent over 2013. To decrease chemical and natural gas consumption, the project team recommended that the process steam system be converted to electric, which allowed boilers to be shut down during the summer months. They also ordered a compressed air leak inspection to decrease demand on electrical systems and implemented routine inspections going forward. Regularly scheduled audits of the shop floor help keep adherence to goals on track and identify talking points for communication with employees. The project began in January 2014 and yielded cost savings of about \$212,000 by the end of the year, with nearly 2.4 million kWh and over 1,600 metric tons of CO2 emissions avoided. Natural gas savings in the same period were about \$41,500, with 320 metric tons of CO2 emissions avoided.

We continued to leverage lighting improvement projects throughout the enterprise in 2014. New technologies in lighting are making it possible to provide increased brightness in the workplace *and* to realize greater energy and cost savings. Caterpillar Transmissions in Arras, France, for example, replaced low-performance, energy-consuming lighting with electronic ballast lighting to help achieve energy improvements. The retrofit resulted in a workplace that is twice as bright with nearly half the lights. Likewise, Caterpillar Global Mining in Langfang, China, replaced metal halide lighting with LED lamps that provide over four times the brightness of the original lamps and save over 33,000 kWh each year. And Caterpillar Electric Power Division in Newberry, S.C., performed a comprehensive lighting analysis and determined upgrades were needed. The facility replaced metal halide lights with fluorescent fixtures and occupancy sensors to shut off lights automatically when not in use, reducing their projected operating costs, even with added fixtures, by \$30,000.



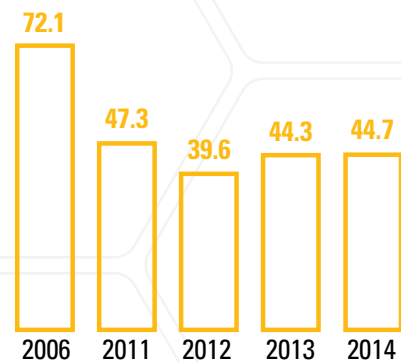
GHG Emissions Performance

Through 2014, Caterpillar has reduced GHG emissions intensity from our facilities by 38 percent compared to our 2006 base year. From 2013 to 2014, our absolute GHG emissions remained constant at 2.47 million metric tons.

Multiple energy management projects have contributed to our success in reducing the greenhouse gas (GHG) emissions of our facilities around the world. Working to achieve our goal of fewer GHG emissions usually leads to ways we can also reduce our energy use and associated costs, with multiple benefits to Caterpillar and the environment. Although Caterpillar Reynosa, S.A. de C.V. in Mexico, for example, had already reduced energy consumption, costs and GHG emissions by nearly half from 2012 to 2013, a project team targeted additional initiatives that could produce similar results for 2014.

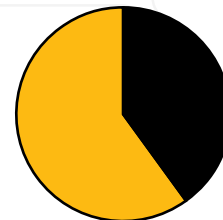
The team began with consumption management – implementing automatic shutoffs for lights, equipment and tools when not in use; posting signage to promote switching off lights in nonproduction areas; and replacing older equipment, such as air compressors and welders, with new, higher-efficiency models. Capacitors were also installed to reduce peak start and stop, as well as stress on belts and pulleys. The next priority was lighting. Skylights and translucent sheets on walls and ceilings replaced high-wattage sodium vapor lamps. All of these improvements added up to dramatic results: the facility reduced, yet again, both energy consumption and GHG emissions by 55 percent and energy costs by 54 percent year over year.

44.7 **GHG Emissions Intensity¹**
Absolute metric tons of CO₂e/
million dollars of revenue



1 Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

2.47 **Total Absolute GHG Emissions**
Million Metric Tons



- 0.99 million metric tons
Scope 1 GHG Emissions
(Direct emissions)
- 1.48 million metric tons
Scope 2 GHG Emissions
(Indirect emissions from
purchased electricity,
heat or steam)

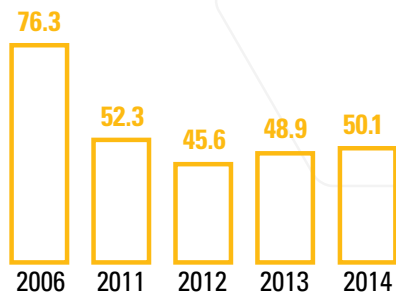


Water Management

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, water security could be an issue for two-thirds of the world's population. The implications are so significant that leaders attending the 2013 World Economic Forum in Davos, Switzerland, cited water scarcity as one of the top two risks currently 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 mitigate our consumption.

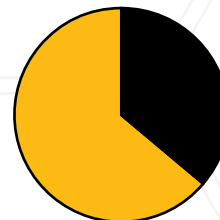
We continue to implement conservation strategies that reduce water use in our operations, explore water-treatment technologies, introduce water-recycling processes at new and existing facilities and train employees about water resources to raise their awareness of the issue. Through 2014, these types of efforts have reduced water consumption intensity, the measure of water consumption normalized by revenue, at our facilities by a total of 34 percent from our 2006 base year intensity. Our 2014 absolute water consumption, including non-contact cooling water from foundry operations, is 4.34 billion gallons of water.

50.1 **Water Consumption Intensity^{1,2}**
Absolute thousand gallons of water/
million dollars of revenue



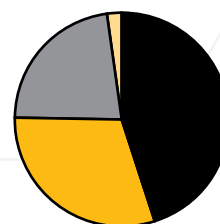
¹ Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.
² Water consumption intensity does not include non-contact cooling water from foundry operations.

4.34 **Total Absolute Water Consumption**
Billion Gallons



- 1.57 billion gallons non-contact cooling water from foundry operations
- 2.77 billion gallons enterprise water consumption excluding non-contact cooling water from foundry operations

Water Sources



- 46% municipal water
- 31% groundwater
- 23% surface water
- <1% other (e.g., grey water)

In areas where water is already scarce, Caterpillar is finding ways to conserve more of it. The state of Victoria, Australia, for instance, experienced a state of drought for more than five years, so it became imperative to collect and conserve as much water as possible. To this end, Caterpillar of Australia Pty. Ltd. in Tullamarine recently completed a long-term project to use rainwater tanks to furnish almost all the non-potable water used by the facility. Total potable water use at the facility has dropped from over 4.5 million gallons in 2006 to 2.0 million gallons in 2014, which is a 56 percent reduction from 2006 usage. The voluntary installation of rainwater tanks aided the efforts of the local water authority to conserve water resources and make them available to the wider community throughout the drought period.

Another important way we're conserving water resources is by using water more efficiently. That was the solution for Caterpillar Hydraulics Advanced Components & Systems Division in Jesi, Italy, which uses ground water for its paint and cooling systems. Before modifications, the facility's wastewater treatment system managed both process water from the paint system and cooling water from machining. However, the cooling water did not require treatment, so a cooling tower was installed to reuse that water in a closed loop. A new wastewater treatment system was also installed and now treats only the water from the paint system. By initiating processes to appropriately manage these two types of water separately, the facility was able to reduce its water consumption by 55 percent from 2012 to 2014.

We also focus on water conservation in our office facilities. In 2014, many restroom lavatory "sink" aerators in our offices in Peoria, Ill., were replaced with low-flow aerators. This improvement is estimated to conserve over 2 million gallons of water per year, resulting in an estimated cost savings of more than \$30,000 per year.





Waste Minimization

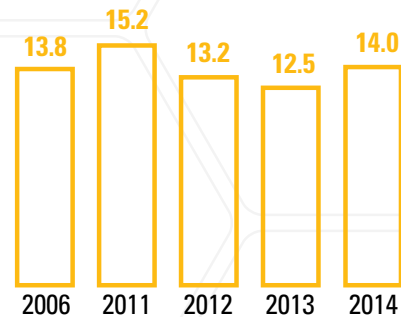
Minimizing waste is an important strategy for competing in today's markets. Improving the efficiency of our products, processes, services and solutions not only reduces costs, but also reduces our utilization of materials, energy, water and land. Throughout the past few years, we have demonstrated great improvements in recycling. Since 2009, our enterprise recycling rate has been greater than 90 percent. Beginning in 2013, we transitioned from a focus on percent recycled to a goal focused on reduction of all by-product materials, or minimization of waste.

Caterpillar focuses 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 2014, we generated a total of 772,000 metric tons of by-product materials, and 90.6 percent of those materials were recycled. Our by-products material intensity increased 1 percent from our 2006 base year to 2014.

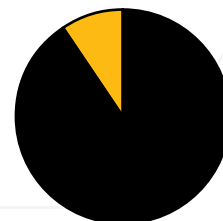
In accordance with our waste minimization goal, we are using fewer materials wherever we can. At the Caterpillar Global Mining facility in Dortmund, Germany, where we manufacture hydraulic mining shovels, we've made material efficiency improvements in the paint process. Previously, an operator mixed paint components manually. Now, a new paint system houses pumps, agitators, filters and lines in a closed mixing system for three paints, two hardeners and solvents. The process ensures proper mixing ratios and minimizes operator exposure to paint and VOC emissions, as well as reducing paint consumption by 41 percent.

14.0 **By-Product Materials Intensity¹**
Absolute metric tons of by-product materials/
million dollars of revenue



¹ Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

772 **By-Product Materials**
Thousand Metric Tons



- Recycled 90.6%
- Disposed 9.4% (sent to landfill or incineration)

BY-PRODUCT MATERIALS MANAGEMENT

In 2013, Caterpillar transitioned away from our zero-waste aspirational goal to a goal focused on reduction of all by-product materials, or minimization of waste. By-product materials are generated as waste materials of our production processes. Where materials are generated, we focus on remanufacturing, rebuilding, reusing and recycling. When more efficient measures are not feasible, treatment/control options can reduce associated environmental impacts and, as a last resort, disposal/discharge in an appropriate and lawful manner may be considered acceptable. 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.

Effective waste management also means getting the most out of the materials we use. For our East Peoria Material Handling & Underground facility, that meant launching a project to increase reclamation of metalworking fluids and extend the life of those fluids. Two separate technologies have been employed. First is a centrifuge designed specifically for processing water-based metalworking fluid that is rotated around to multiple fluid sumps to extract non-soluble lubricants and other contaminants from the systems. Reducing contaminant levels in the metalworking fluids lessens the potential for harmful microbiological growth that can destroy the fluid. The process extends the life of metalworking fluids and reduces the amount of chemical additives required to manage the fluid. Second, a treatment system allows products pumped from the system to be treated and recycled back into the sump. In the past, these fluids were taken to waste treatment for disposal. Using both technologies has extended metalworking fluid life, conserved water and reduced the costs of fluid and water treatment by \$80,000 per year.



Clearly, the best way to minimize waste is to avoid practices that generate it in the first place. That's what we had in mind when designing the Caterpillar Building Construction Products (BCP) Division facility in Athens, Ga. The commitment to develop and use returnable packaging was incorporated into the facility's construction. Packaging engineers worked to develop returnable part-specific racks that maximize shipping efficiency and keep parts safe during travel. Before the new racks were developed, parts arrived at the facility on wooden pallets, often wrapped with yards of shrink-wrap and plastic tie-downs – all of which could not be reused. The returnable packages not only reduce waste, but also maximize the number of parts in each package, as well as the number of packages that can be stacked in a truck. As a result, fewer trucks are needed for transport, resulting in lower emissions, and more than 6 million pounds of pallet waste are avoided each year.



Product Stewardship

Product stewardship covers the full lifespan of our equipment from the supply chain to the customer’s job site. This means taking active steps to reduce possible 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 – 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 ensure 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 reduces our need for resources, maximizes the total life cycle 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.

We establish and adhere to policies and practices that direct us to consider sustainability in product design, engineering and manufacturing in all of our facilities worldwide. In our operations, Caterpillar’s Environment, Health & Safety Assurance framework helps us comply with applicable laws and regulations. Successfully identifying and managing environmental issues helps protect the environment we all live in and is a good business practice.

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 and leadership roles in organizations such as the ISO, industry associations, membership in governmental and nongovernmental delegations to international bodies such as the International Maritime Organization, participation in European Union industry expertise panels and participation in federal advisory committees chartered under the Environmental Protection Agency.

STANDARDS HARMONIZATION

Industry consensus standards, including those for visibility, rollover protection structures, braking and sustainability, are needed for earthmoving equipment. We are involved on an international level to develop 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.

In product development, our Technology Strategy establishes the foundation of Caterpillar's 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. Research activities currently underway within these areas include efforts to reduce customer owning and operating costs, enhance safety and reduce greenhouse gas emissions, increase product reliability and improve productivity.

While it is important to innovate and explore many new ideas, our technology transfer process, the governance model for the strategy, 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. In 2014, through ongoing execution using the technology readiness level process, 25 technologies were transferred from research into New Product Introduction programs.

In 2014, three new awards were added to our Chairman's Award process 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.

In 2014, the Caterpillar Joliet facility and two innovative products from Caterpillar Technical Center in Mossville, Ill. – the Cat® HYDO™ Advanced Hydraulic Oil and Cat® Proprietary Fluid Filters – won the Illinois Governor's Sustainability Award, and the Caterpillar Visitors Center was awarded an honorable mention for its sustainability efforts.

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 – all of which are coordinated through Caterpillar Safety Services. For full details about how Caterpillar Safety Services meets customers at any point of need, visit safety.cat.com.

Caterpillar's commitment to product safety is embedded in our product development process. This safety commitment begins at the first stage of the 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.

We're always looking for new ways to replicate ideas that work. At the same time, we're seeking additional opportunities to improve customer safety. These aspirations came together in a strategic agreement in 2014 between Caterpillar subsidiaries Progress Rail Services and Electro-Motive and the Seeing Machines company, based in Canberra, Australia. The objective was to develop and adapt systems that monitor in-cab operator fatigue and distraction for use in locomotives. The Seeing Machines Driver Safety System is based on patented eye-tracking and analytics that detect operator distraction and fatigue while on the job. Similar technology has already been implemented on Cat® mining equipment. Operator-facing visual, motion and accelerometer sensors provide key streams of data designed to help improve productivity and safety outcomes in those applications. The success of these technologies in challenging mining applications supports the delivery of enhanced safety to our customers and their fleets by helping operators remain alert while behind the controls.

Circular Flow of Materials

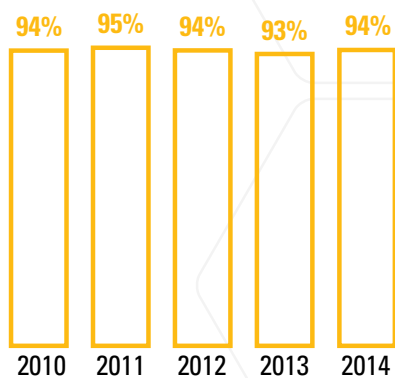
Caterpillar strives to provide customers with quality equipment that provides the best economic proposition for their business. Our remanufacture (reman) and rebuild businesses provide customers not only with an immediate cost savings, but also help us use materials more efficiently.

REMANUFACTURED PRODUCTS AND REBUILT PRODUCTS

Caterpillar encourages sustainable business practices through our remanufacturing and rebuild businesses. This starts with durable products, many designed to be rebuilt multiple times. Through our reman and rebuild programs, components and machines are overhauled, rather than completely replaced. Reuse of parts reduces waste and minimizes 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 parts and components program provides customers an exchange system where they can return an end-of-life component (called “core”) for a remanufactured replacement. For more than 40 years, Caterpillar’s remanufactured products have provided same-as-new performance, reliability and warranty at fraction-of-new costs, as well as availability that gives customers more options at repair and overhaul time.

94% 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.

The Caterpillar Reman, Solar Turbines and Progress Rail Services remanufacturing programs – operating around the world – provide customers with lower- cost products, shorter downtime and quick, dependable service. Caterpillar Reman alone operates facilities in eight countries around the world.

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 reman 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

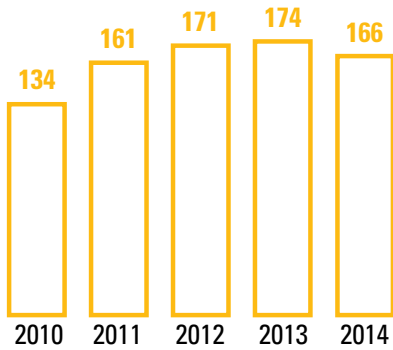
Given the significant role that reman and rebuild operations play in our sustainability initiatives, we created a new customer goal in 2013 around this area of the business. Using 2013 as a base year, our goal is to grow the reman and rebuild business revenues by 20 percent by 2020.

REMANUFACTURING ELECTRONICS

As we continue to expand our remanufacturing business, electronics is a natural place to focus. Caterpillar is designing electronics that hold up under heavy-duty applications to withstand severe vibration, extreme operating temperatures, humidity, corrosion and excessive dust. Drawing on our broad expertise, we introduced a line of remanufactured Electronic Control Units (ECUs) a decade ago. Today, the team at our remanufacturing facility in Nuevo Laredo, Mexico, continues to provide Caterpillar customers with reasonably priced, remanufactured electronic controls that are ready for another life cycle, while minimizing waste and helping to protect the environment.

With the introduction of such worldwide directives as RoHS (Restriction of Hazardous Substances) and WEEE (Waste Electrical and Electronic Equipment) in the European Union, as well as different state laws in the U.S., new electronic products face strict limits on certain substances used in devices as well as in the manufacturing of them. Additionally, parts obsolescence affects many ECUs, further limiting what suppliers can provide at an affordable price.

166 **Reman End-of-Life "Take Back" by Weight¹**
Million pounds of end-of-life material received



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

The remanufacturing process at Caterpillar provides a differentiated solution. In addition to reusing precious materials, remanufacturing also keeps electronic waste that contains toxic substances such as lead, mercury and cadmium from ever reaching landfills. And, what's more, Cat® equipment is designed to last through several life cycles that can be measured in decades rather than months or even years. The ability to provide long-term product support is also a significant driving factor for electronic remanufacturing.

There is considerable confusion, however, on the true definition of remanufacturing, as opposed to refurbishing or repairing in the field of electronics. Refurbishing tests for functionality and restores appearance. Repair is simple, and fixes only a specific problem. Remanufacturing, on the other hand, takes place in a factory environment with 100 percent genuine parts, upgrades to the latest engineering changes and same-as-new warranties to support same-as-new performance.

NOx UPGRADE KIT

Along with our continuing focus on sustainability through remanufacturing, Caterpillar is always looking for ways to rebuild and improve machines and engines still in service. One way we do this is through retrofitting existing lean burn engines to have much lower emissions for high horsepower applications in gas compression. The G3516 Low Emissions Upgrade (LE Upgrade) kit allows operators to economically retrofit existing engines that enable up to a 75 percent reduction in NOx emissions. The power rating for the engine remains the same, and upgrade conversions can be done in the field, eliminating the time and costs of transporting the engine to a dealer rebuild facility. Customers are able to reduce emission levels utilizing existing assets instead of purchasing new engines.

Caterpillar's approach takes an electronic component which has already had one life in the field and applies our broad electronic design experience and processes to put the component back in the field with a guaranteed full second life – at lower cost to the customer and with less waste. It's just one of the ways that Caterpillar is putting sustainability into practice and providing the best value to our customers.

INCREASING GLOBAL ACCESS TO REMANUFACTURED PRODUCTS

While global customers have driven demand for reman products, not all customers can benefit from the significant cost and efficiency savings that Cat® Reman products deliver. Why? Because certain countries – mostly in developing markets – fail to recognize the value of remanufactured goods for the environment and their national economy and place trade barriers around reman products.

1% **Rebuild Business Growth**
Our rebuild sales increased 1 percent from 2013 to 2014.

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 reman 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 equal to that of 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 reman products the same way as new finished goods are treated.



enhance their current diverse energy-generation portfolio of natural gas, coal and wind, while also serving as a reliable and cost-effective means to meet members' growing demand for energy. This type of generation resource also has a fast-start capability, allowing our customer to rapidly respond to market conditions and the growing integration of wind energy.

[▶ Learn more here.](#)

4% **Reman Business Growth¹**
Our reman sales increased 4 percent from 2013 to 2014.

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

Caterpillar has worked with policymakers in several countries to open markets and expand reman options for our global customers, providing them with cost-effective, sustainable options for extending the life of their existing equipment. Caterpillar teams, including Caterpillar Reman and Global Government and Corporate Affairs, continue in ongoing efforts to inform and educate government regulators around the world on the sustainable benefits of Cat Reman products.

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 gas (GHG) emissions of our products. 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.

As the demand for energy grows, there is also an increasing awareness of the need for that energy to be sustainable. This often means different solutions in different locations. In the U.S. midwest, for example, one of the natural choices is wind energy. Because of inherent fluctuations, however, wind energy generation alone is not currently reliable enough to meet demand. Generators may be used as a backup power source to consistently meet demand. Our largest natural gas-fired power plant in the world is bridging this gap. Twelve Cat® G20CM34 generator sets now provide Mid-Kansas Electric Company LLC with 110 MWe of power to

18%

2014 reported sales and revenue derived from products, services and solutions that demonstrate an improved sustainability benefit over existing offerings.

The benefits of natural gas power have encouraged us to continue exploring wide applications for liquefied natural gas (LNG)-fired engines around the world. Among these is the world's first LNG-hybrid power barge – representing a brand-new way to supply alternative power to cold ironing cruise ships during layovers at the Port of Hamburg, Germany. Five new spark-ignited Cat® G3516C marine gas engines installed aboard the barge provide 7.75 megawatts of power while operating solely on LNG, thereby eliminating the need for idling and related emissions of the cruise ships. The barge is owned by Becker Marine Systems' subsidiary, Hybrid Port Energy, and is compliant with the strict Marine Classification Societies requirements, SOLAS, and certified by Bureau Veritas. The engines represent a pinnacle in efficiency and peak performance, providing a customer solution that is not only safe and with fewer emissions, but also one that is cost effective.

While LNG-powered solutions are a natural fit for many Caterpillar customers, those in industrial regions with a rapidly growing economy, such as China, may find that coke oven gas (COG) is an alternate resource. Coke is an essential ingredient for making steel and is the solid product left over from the distillation of coal. COG is normally flared as a waste product, emitting carbon dioxide into the environment.

Some of our customers are using COG for energy, resulting in reduced CO2 emissions compared to traditional flaring. One of Caterpillar subsidiary Solar Turbines' customers, Shanxi Liheng Steel Co., Ltd. (Liheng Steel), has become one of the first companies in China to receive a Certificate of Avoided GHG Emissions from the U.S. Environmental Protection Agency Combined Heat and Power Partnership for its achievement in reducing carbon emissions with its combined heat and power (CHP) system.

The company uses four Titan™ 130 gas turbines to burn COG to produce electricity and uses exhaust heat from the turbines to produce steam. As a result of using this technology, Liheng's 55 megawatt CHP system has avoided CO2 emissions of approximately 301,000 metric tons per year, compared with conventional energy sources and industry practices. This reduction is equivalent to removing 55,000 passenger cars from the roads per year. Since 2005, dozens of Solar's customers have begun using COG for power generation.

One of the many ways we're facilitating sustainable growth around the world is with our revolutionary products – like the hydraulic hybrid technology in Cat® large excavators. The hybrid system offers significantly improved fuel efficiency of up to 50 percent, along with uncompromised performance, reduced operating noise and lower customer owning and operating costs. The foundational technologies (with more than 300 filed patents) are being leveraged across the hydraulic excavator product line. The team is proud of the positive impact the product line will have on fuel efficiency and subsequent GHG emissions.

▶ **Watch as the Cat® 336E H hybrid excavator keeps a light-rail project on track in Silicon Valley, Calif. Learn more here.**

Job Site Efficiency

Several years ago, Caterpillar recognized that our customers are looking for us to do more to help them capture the full value from their assets. So we developed a new solutions business model that goes beyond iron to deliver this value to our customers. Designed and delivered by the Caterpillar Job Site Solutions (JSS) team in partnership with Cat® dealers, 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 ownership and maintenance solution.



CATERPILLAR FOREST PRODUCTS: DELIVERING IMPROVEMENT THROUGH SHARED EXPERTISE

Caterpillar Forest Products' Global Solutions Team (GST) works with forest products companies to help them improve their businesses by improving profitability, sustainability and safety. The team does this by taking a high-level view of a company's operation and bringing the expertise, services and machines needed to improve it.

The team looks at the operation from a system standpoint – the total cost of harvesting or total cost of load and transport, or total cost in the millyard. It's not just about the equipment; it's about providing a complete solution.

The first step is a site assessment. The team analyzes the current operation in light of the company's business goals – how much they need to produce, expansion plans, fleet replacement time frame, etc.

47%

Increase in fleet hours managed by Caterpillar Job Site Solutions (2013 to 2014).

The next step is to analyze the data and develop a proposal. The team generates a system cost model based on the current operation and uses that to pinpoint areas in the system, in the workflow, that could be improved. The proposed system's cost, including fuel and maintenance, is compared with the current system.

When a company implements a GST recommendation and purchases machines, the team’s trainers demonstrate daily maintenance requirements and how to work safely and most efficiently. This phase can include training on Cat® Simulators, a safe method for training new operators that also reduces the customer’s expense for fuel and maintenance on machines used in training.

46%

Increase in number of machines covered by services agreements with Caterpillar Job Site Solutions (2013 to 2014).

In 2014 the team began working with Forest Energies, a timber company in the southern United States, to help improve the company’s harvesting operations. The GST, Cat® dealer Thompson Tractor and Caterpillar engineers worked with Forest Energies to find the best solution for harvesting a tract with terrain as steep as 45 degrees. They presented detailed simulations and cycle time comparisons that illustrated higher production and lower cost per ton that would be achieved by switching to a Cat® 522B Track Feller Buncher with the HF201B head and adding two skidders.

Forest Energies CEO Lenn Morris says, “Their boots on the ground and their expertise have helped us understand how to better use our machines to get more productivity.” For example, Morris tells how optimizing skid trails and training the skidder operator on pulling in the correct gear, depending on the load, have reduced fuel consumption up to 7 percent. He says the Caterpillar team also taught their loader operators to use the Economy Mode. “Every operator we had just put it in Power Mode, no matter what we were loading,” he says. “Now, with their help, we’ve educated our loader operators and we’ve seen a significant drop in fuel consumption.”





Supply Network

We seek long-term business relationships with suppliers that demonstrate strong values and ethics, in concert with those of Caterpillar, and represent that they will comply with all applicable laws and regulations. These include product regulatory standards, environmental and employee safety requirements, wage and labor laws, anti-corruption laws and various export regulations.

The Caterpillar Supplier Code of Conduct formally expresses the values we expect our suppliers will adhere to, and was derived from Caterpillar's Worldwide Code of Conduct.

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 has also developed the Assurance of Supply Center (ASC) to support our enterprise strategy to manage a world-class supply network. The ASC focuses on understanding the current state of tools, systems and processes, and develops projects to close gaps that may obstruct an end-to-end perspective of our supply network. The ASC continues to develop the ability to monitor and mitigate risks surrounding our suppliers' capacities, capabilities and financial positions, as well as monitoring the greater geopolitical environment, vulnerability to any

natural disasters and other risks to the source of supply. This is achieved through advanced visibility, analytics and case management services. The ASC ensures that proper orders are delivered from our supply network, enabling the enterprise to provide world-class delivery performance, high quality and low total cost to meet our customer commitments today and into the future.

In 2014, Caterpillar's intensive focus on supply network management again earned us a prestigious spot on Gartner's Supply Chain Top 25 list. Gartner, an information technology research and advisory company, ranked several global supply networks on peer opinion, return on assets, inventory returns and revenue growth. It's our third consecutive year on the list.

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 2014, Caterpillar was again recognized as one of the "Best of the Best" for supplier diversity programs by *Black EOE Journal*, which partnered with three other diversity publications to evaluate U.S. companies on their

outreach and accessibility to the African-American, Hispanic/Latino, female and veteran populations.

REDUCING CO2 EMISSIONS IN THE SUPPLY CHAIN

Transportation and packaging are an integral part of the supply chain. When utilized effectively, these functions allow Caterpillar to improve efficiencies, maximize velocity and minimize cost, while also reducing CO2 emissions.

A team in our Building Construction Products division has been working to design these benefits into the supply chain during the New Product Introduction (NPI) phase. Four areas have been identified for possible CO2 savings: changes to transportation modes; density improvements; elimination of unnecessary mileage and a reduction in the number of shipments over time.

By moving Small Wheel Loader lift arms from truck to rail, for example, 2,503 tons of CO2 have been eliminated. Likewise, a partnership with a steamship line is matching loads for return trips, which previously contained empty containers.

These and other initiatives are among 92 projects implemented globally by the team. To date, this has led to savings of \$15.4 million, elimination of 7,512 shipments and a reduction of 5,473 metric tonnes of CO2 emissions. Indirect benefits include offsetting fuel and rate increases, improving safety and decreasing transportation capacity requirements.

LOGISTICS

Caterpillar's logistics team moves thousands of supplies and parts around the world to manufacture and service our equipment during the course of its life cycle. We drive sustainability through collaboration with our dealer network and suppliers that embrace sustainable solutions. In 2014, our logistics team reduced its total energy consumption by 130,000 gigajoules and its carbon emissions by 11,000 tons.

We leverage state-of-the-art technology to optimize the loads we transport across land and water. Shipments are analyzed and strategically planned to ensure trucks and vessels are full (to reduce the amount of trips our carriers must make) and determine whether ocean or inter-coastal barges should be utilized to reduce truck and air miles traveled. We also utilize a process (trade lane management) to consolidate machine shipments at port, which reduces the amount of inland miles traveled and improves delivery velocity for our customers.

- Our largest ocean vessel carrier has reduced its carbon emissions by more than 25 percent in the past six years by introducing more fuel-efficient vessels. Also, the majority of our ocean vessel carriers are required to use a low-sulfur fuel.
- More than 90 percent of the miles driven in North America to transport Caterpillar's cargo are with carriers who are partners in SmartWay, a United States Environmental Protection Agency program focused on reducing greenhouse gas emissions and air pollution.
- Our new ground transportation network optimization program has been successfully deployed to more than 2,000 supplier locations and 70 manufacturing facilities.



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 129 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.

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 must 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 “Across The Table” 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.



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, and in compliance with all applicable laws. 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 11 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, stock ownership handbook, mandatory retirement ages for 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.

Ethics and Compliance

Caterpillar's reputation is something we value as much as our products and our customers. In 1974, Caterpillar introduced its first Code of Conduct. Our current Code of Conduct and 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>.

CORRUPTION & BRIBERY

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. We firmly believe that fair competition is fundamental to free enterprise. For this reason, we observe anti-corruption, antitrust and competition laws wherever we do business,

and we reinforce these messages through advocacy and ongoing employee training throughout our company. We have also made enforcement of these standards part of Our Values in Action.

INFORMATION SECURITY

Information security risks in every business sector have increased exponentially in the past decade. At Caterpillar, we focus our efforts on an Information Security Transformation aimed at three objectives: secure technology, secure behavior and watchful eyes. Six 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 security standards that are contemporary 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 always has a focus on security and protection of our confidential information.

Risk Management

Risk is an inherent part of conducting business, and especially so on a global scale. 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 more than 50 discrete 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.

Public Policy

Government decisions around the world can have a significant impact on our employees, customers and stockholders. Where legal, appropriate and constructive to do so, Caterpillar will advocate for public policy outcomes that help promote sustainable business conditions for our company, our suppliers and our 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:

- Monitor state, federal and international government affairs issues.
- 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 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/nl/company/corp-overview/global-issues.html>.

Where corporate contributions are not permitted in the United States, Caterpillar employees also fund and administer the Caterpillar Employee Political Action Committee (CATPAC). CATPAC is entirely funded through voluntary contributions by eligible employees. A Steering Committee comprised of Caterpillar nonofficers 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.





Human Rights

Caterpillar has a long history of building products and equipment to advance sustainable global economic development and improve standards of living in communities where we operate. Our approach and commitment to upholding and respecting human rights is articulated in Our Values in Action – Caterpillar’s Code of Conduct and governed by our Human Rights Policy, which Caterpillar developed in 2015. The policy will also align with expectations in our Supplier Code of Conduct. The policy is informed by 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. The policy is a result of a comprehensive process that included benchmarking with a number of organizations that lead in this area, cross-functional business input and review by the governance committee of Caterpillar’s Board of Directors.

In 2015 and beyond, Caterpillar will work to implement this policy into direct operations and management processes. This includes adopting a formal human rights governance structure, delivering training for employees and reporting on progress made in our next sustainability report.



Economic Development

The Caterpillar organization and our products support economic growth around the world, both in developed countries and emerging markets. The road to sustainable progress often begins with a road, and Caterpillar's products provide critical contributions to the construction of that road. 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.

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 – 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

Our facilities in more than 180 countries provide quality jobs and opportunities for the people in those locations, currently, at the end of 2014, more than 114,000 employees – not to mention the jobs also created within our extended dealer network and supply chain. 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 \$2.03 trillion to the United States economy in 2013, 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 Advanced Manufacturing National Program Office estimates that total hourly compensation for manufacturing workers is about 17 percent higher than workers in non-manufacturing sectors. In addition, manufacturing jobs translate into additional jobs in other parts of the economy, with 2.2 additional jobs created in both direct support and service support capacities for every manufacturing job.

The number of jobs that Caterpillar and its suppliers bring to communities varies by site, and they often vary according to economic cycles. A significant economic impact is created in the communities where Caterpillar facilities operate as a result of not only newly created jobs, but existing employment levels as well.

PROMOTING DEVELOPMENT THROUGH MICROFINANCING

The Caterpillar Foundation invests in organizations through grants. These organizations aid local economic development by providing funds to individuals or groups who might not otherwise have access to traditional financial services to start small businesses. The Caterpillar Foundation has been investing in Opportunity International for more than 21 years, supporting various development efforts in more than 22 countries and impacting over 18 million lives around the world.

Support from the Caterpillar Foundation enables Opportunity International to provide access to financial services and training to help entrepreneurs and their families in the developing world launch and expand successful businesses – even in the face of extreme poverty. We especially see women thrive with access to savings, loans, insurance and business training. Communities flourish as entrepreneurs create jobs.

In Africa, for example, Opportunity International expanded outreach to poor women and their families, significantly increasing the number of loan and savings programs by disbursing over 149,000 agriculture loans to farmers and helping more than 3,000 families obtain school fee loans for their children's education. Educated children can break the grip of poverty. In China, where the Caterpillar Foundation has supported Opportunity International's work for more than a decade, 150,000 jobs have been supported and created. In India, where 900 million people live on less than \$2 a day, Opportunity International has empowered 2.5 million new entrepreneurs, expanding financial services from 170 districts across 18 states in India to more than 275 districts across more than 20 states. The work is also improving access to toilets, safe drinking water and clean energy solutions at the household and community levels in India.

Together, the Caterpillar Foundation and Opportunity International collaboration has improved millions of lives – and our work continues to move the needle against poverty.

The Caterpillar Foundation also invests in Water.org's WaterCredit initiative, which puts microfinance tools to work in the water and sanitation sector. It is one of the most effective and comprehensive programs of its kind to respond to the current U.S. \$12 billion demand for microfinance for water and sanitation in developing countries. Through WaterCredit, Water.org builds upon existing systems of microfinance in these countries to meet this significantly untapped market as a means to secure access to water and sanitation for the poor. The global water and sanitation crisis is pervasive, urgent and debilitating. Nearly 750 million people lack access to any improved water source, while 2.5 billion people do not benefit from hygienic

sanitation facilities. The human toll takes on many forms, including the death of 1,800 children every day. In India alone, more than 92 million people lack access to safe drinking water, while more than 792 million people do not have the dignity of a toilet. Girls and women, who are particularly affected by this issue, often waste more than 180 million hours per day scavenging for water, hindering their capacity to participate in school and income-generating activities.

However, a significant proportion of poor households in these areas have also demonstrated an ability and willingness to pay for access to clean water and sanitation when these services are available. Indeed, in many instances, the world's poor pay on average 5 to 10 times more for their water than their middle-class neighbors who are connected to piped water services. Further, these are also the same disadvantaged communities that are often deemed "unfinanceable" by financial providers due to their lack of assets, affecting their ability to access credit and capital to meet their water and sanitation needs. Through this demand-driven and market-based approach of WaterCredit, poor households gain access to capital that enables them to finance the water and sanitation solutions they need most. Access to water and sanitation allows these families the health, time and opportunity to engage in income-generating endeavors, and a chance to break the cycle of poverty.





Philanthropy/Social Innovation

We contribute to the well-being of communities around the world. From charitable contributions to volunteerism, philanthropy has long been part of Caterpillar’s culture. As Our Values in Action states:

“WE ARE PROACTIVE MEMBERS OF OUR COMMUNITIES.”

As individuals and as a company, we contribute our time and resources to promote the health, welfare and economic stability of communities around the world. We conduct our business in a manner that respects human rights. We encourage all employees to participate in activities that strengthen our communities. Our success should also contribute to the quality of life, prosperity and sustainability of communities where we work, live and serve.

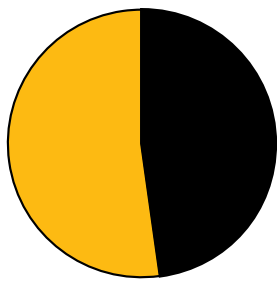
Through strategic investments and collaborations, we leverage our unique strengths to make contributions that support poverty alleviation. We collaborate across our value chain to develop programs that provide job training and increase workplace safety. Globally, our employees generously volunteer their 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 \$600 million to help make sustainable progress possible around the world. The Caterpillar Foundation’s mission is to turn the spiral of poverty into a path to prosperity by investing in those proven to yield the best results – girls and women. We champion programs that support:

- Environment: natural resource management
- Education: literacy and numeracy, STEM (Science, Technology, Engineering and Math), leadership and workforce readiness
- Basic Human Needs: energy access, food, shelter, water, disaster relief

2014 Caterpillar Foundation Investments in our Communities



● 45% U.S.
● 55% International

\$49.6 Million Total

As a change in methodology from previous reporting, these investments do not include administrative costs.

The future of a growing, vibrant Africa is inherent to Caterpillar’s vision of sustainable progress. We have a history of almost 90 years on the continent and operate in 52 of 54 African countries. Caterpillar’s commitment to Africa can also be seen through its support of the Caterpillar Foundation. The Caterpillar Foundation has invested more than \$30 million to enable growth and development through access to clean water, energy and microfinance, with a specific focus on empowering girls and women.

The Caterpillar Foundation made a commitment to invest \$10 million with the ONE Campaign, an advocacy group that fights extreme poverty, to address public policy needs and the lack of access to energy, which is a key factor in making it more difficult for Africa to lift itself out of poverty. The investments are being used toward the group’s vital advocacy efforts and to help bring reliable energy to as many as possible of the 600 million people across Africa lacking reliable access.

A reliable supply of clean and safe water is another fundamental need if a country is to emerge from poverty and prosper. Accordingly, the Caterpillar Foundation is investing nearly \$5 million to bring clean water to three countries in Africa through *charity: water*, whose mission is to bring clean and safe drinking water to every person on the planet. The investment will help bring clean water to hundreds of communities throughout Ethiopia, Malawi and Uganda, where the Caterpillar Foundation has been working with *charity: water* since 2010, 2012, and 2014, respectively. This gift will also serve to support the pipeline initiative, which is committed to developing innovative programs that increase the sustainability of clean water services. “The Caterpillar Foundation has been a key contributor to *charity: water* since 2010. During that time, we’ve funded nearly 14,000 projects to bring clean water to more than 4.6 million people throughout Africa and beyond,” said Scott Harrison, *charity: water* CEO. “We are honored to continue working with the Caterpillar Foundation in such a significant way. Together, we’re putting thousands more people on the path to prosperity.”

Along with water, adequate and safe food is another basic necessity. However, in some developing countries, even when there is enough food, there is a danger in preparing it. Chronic exposure to smoke from wood-fired or kerosene cookstoves is one of the largest, but almost unknown, causes of death in developing countries where traditional cooking practices are common. As cooking and fuel collection largely remain a woman’s responsibility in many African countries, the health and economic effects of household air pollution from traditional cookstoves disproportionately impact girls and women. The Caterpillar Foundation is investing more than \$1 million in energy and cookstoves programs to help address this deadly issue in Ghana, Kenya, Nigeria and Uganda. Through a United Nations Foundation program, the money will provide education about the dangers of traditional cooking and the improvement to health and well-being of adopting clean cooking solutions.

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



Since 1952, the Caterpillar Foundation has been dedicated to transforming lives in the communities where we live and work around the world. We champion programs that support education, environment and basic human needs. Learn more at CaterpillarFoundation.org.

In places where health can be compromised by extreme poverty and a lack of wholesome resources and practices, there is an added human and economic imperative to help ensure that health systems are strong and resilient. Sadly, the Ebola outbreak in West Africa poses an immediate threat to already taxed health systems and threatens the strides that have already been made. Ebola has not only taken thousands of lives – it has also broken down health systems, closed schools, shut down agricultural markets and hampered economic growth. The ONE Campaign is among the best organizations advocating on global health issues and has recently been at the forefront of Ebola policy and advocacy efforts. ONE has responded vigorously to the Ebola crisis, with a particular focus on resource mobilization and donor accountability; communications and advocacy messaging; and social mobilization among its 2 million African members.

Caterpillar supports a culture of volunteerism and employee engagement.

The Caterpillar Foundation made a special donation of \$1 million in 2014, specifically to boost the organization’s response to the Ebola outbreak. Along with the Foundation’s earlier investments in The ONE Campaign’s work to fight extreme poverty and preventable disease in Africa, this investment will help ensure that the Ebola crisis and its damaging effects on global health systems remains a top priority for political leadership and the public. The outcomes will help government officials put healthcare policies and measures into place aimed at protecting the citizens and stopping the spread of Ebola.

The Caterpillar Foundation is dedicated to continue targeting the root causes of poverty, which is key to Caterpillar’s corporate social innovation strategy.

VOLUNTEERISM & EMPLOYEE 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.

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



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 of their choice, along with a dollar-for-dollar match from the Caterpillar Foundation. The individual 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 2014, a total of more than \$12.8 million was donated to the United Way – \$6.4 million in employee contributions, and a \$6.4 million match from 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 \$3.5 million through this program. For more details on the Matching Gifts Program, visit <http://www.caterpillar.com/en/company/caterpillar-foundation.html>.

In 2014, our Product Development and Global Technology employees located in China donated more than \$20,000 to the FIRST Tech Challenge.

LEGAL SERVICES PRO BONO PROGRAM WORKS WORLDWIDE

As the young man looked out over the faces of the attendees at Renewal House's "A Women's Thanksgiving" celebration dinner, he remembered how Renewal House staff helped him and his mother when their lives were in chaos and how, due to the legal assistance provided by Caterpillar's Pro Bono volunteers, he and his mother were able to stay together. Today, his mother is clean and sober. He is on his way to medical school. Now it was his turn to inspire the audience with the possibility of changing their own lives.

His story is one of the many success stories to come out of the Nashville, Tenn., nonprofit organization. Renewal House provides comprehensive residential and outpatient long-term recovery support for women with substance-use addictions, addictions that often manifest in other co-occurring issues such as mental health disorders and entanglements with legal and child-welfare systems. Renewal House is one of the many local collaborations developed in the Caterpillar Pro Bono Program. Since 2007, Caterpillar's attorneys and paralegals have provided legal assistance to the organization, from assisting on individual client matters, such as custody matters, to working with the organization in developing a records management policy, to producing an employee manual, amending their bylaws and helping Renewal House obtain a grant.

Caterpillar's collaboration with Renewal House was one of the first programs undertaken after Jim Buda, Caterpillar Executive Vice President and Chief Legal Officer, charged Deputy General Counsel Mike Sposato with developing a pro bono legal program in 2006. Mr. Buda was passionate about reaffirming our commitment to the communities in which we live and work and supporting employees who provide their service.

Today the Caterpillar Pro Bono Program is active in many locales in the United States, Europe and Asia. Through the program, legal representation is not only provided to low-income clients referred from local legal services organizations or from local nonprofit organizations, but also to the nonprofits themselves. Since its inception, more than 360 division members have provided more than 15,000 hours of free legal services.

In the U.S., Caterpillar's lawyers, paralegals and legal staff regularly undertake a wide range of pro bono matters, including wills, divorce, orders of protection, adoption, 501(c)(3) organization, small claims, debt collection, intellectual property matters and employment issues. Each year, division employees staff numerous legal clinics covering various matters, such as helping immigrants who have been victims of domestic violence obtain U-Visas to preparing powers of attorney and living wills.

Caterpillar also has been successful taking on global pro bono projects. Nearly 70 lawyers and paralegals in 11 countries, for example, conducted extensive research to help draft model legislation that will protect Nepalese women working in "cabin and dance" restaurants from socioeconomic and sexual exploitation. The Supreme Court of Nepal issued a decision decrying the practices and directing the enactment of legislation to address the issue. Other global pro bono projects include the promotion of inheritance rights in Kenya and the Tahirih Justice Center's Forced Marriage Initiative.

In creating a pro bono culture within the division, Caterpillar also works to foster pro bono work in general. For example, we worked closely with leaders in Illinois to change the rules that restricted limited admission in-house counsel from performing pro bono work.


The Caterpillar Pro Bono Program has shown itself to be a great success. Success not only measured by the many awards and accolades received from outside organizations and from within the company, but by the fact that more than 80 percent of Caterpillar's legal professionals participate in the program voluntarily.

Goals and Progress

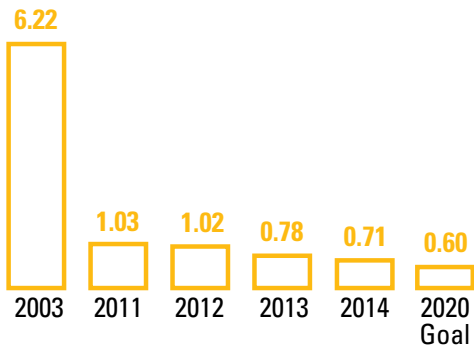
Caterpillar has set aspirational, long-term goals for its operations and product stewardship. We believe these standards affirm our determination to lead our industry to a more sustainable future.



SAFETY

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

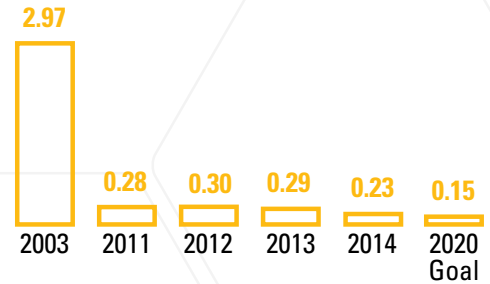
0.71 **Recordable Injury Frequency (RIF)¹**
Recordable injuries per 200,000 hours worked



1 Data prior to 2014 has been restated due to a) data updates realized from improved accuracy and b) updates to goal reporting format.

We have improved our Recordable Injury Frequency rate by 89 percent from our 2003 base year and 9 percent from our last reporting period.


0.23 **Lost-Time Case Frequency Rate (LTCFR)¹**
Work-related injuries resulting in lost time per 200,000 hours worked



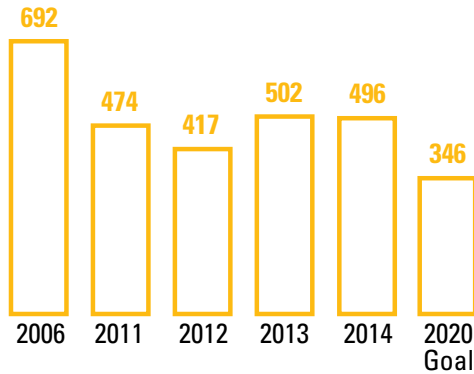
1 Data prior to 2014 has been restated due to a) data updates realized from improved accuracy and b) updates to goal reporting format.

We have improved our Lost-Time Case Frequency rate by 92 percent from our 2003 base year and 21 percent from our last reporting period.

ENERGY GOALS & PROGRESS


 **Goal:** Reduce energy intensity by 50 percent from 2006 to 2020.¹



496 **Energy Intensity¹**
Absolute gigajoules energy use/
million dollars of revenue

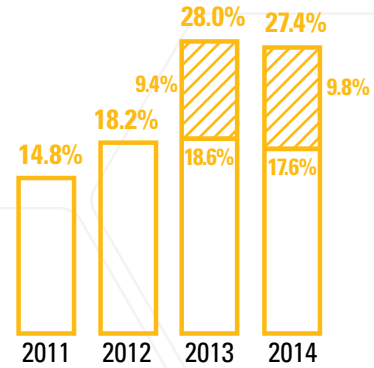


¹ Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

Operational energy intensity decreased 28 percent from our 2006 base year to 2014. 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. Our total absolute energy use for 2014 was 27.4 million gigajoules.

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

27.4% **Alternative/Renewable Energy**
Sum of renewable and alternative electrical
energy use/total electrical use x 100
 Alternative  Renewable




Energy obtained from alternative resources increased from 2013 to 2014. With the combination of alternative and renewable energy sources, we have achieved 27.4 percent energy from alternative or renewable sources.

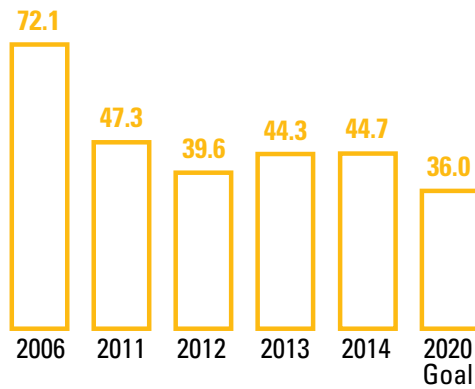
Renewable Energy: Caterpillar defines renewable energy as energy resources that are naturally replenishing over a short period of time and virtually inexhaustible. Power generation examples include wind, solar, hydro, geothermal, tidal, wave, biomass and biogas from anaerobic digestion.

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.

GHG EMISSIONS GOALS & PROGRESS

 **Goal:** Reduce greenhouse gas emissions intensity by 50 percent from 2006 to 2020.¹

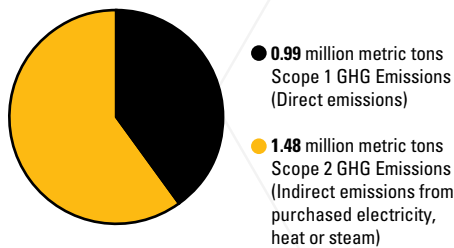
44.7 **GHG Emissions Intensity¹**
Absolute metric tons of CO₂e/
million dollars of revenue




1 Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

In 2014, Caterpillar achieved a reduction in GHG emissions intensity by 38 percent over our 2006 base year. While our intensity increased compared to last year, our absolute GHG emissions remained constant from 2013 to 2014. Our total absolute GHG emissions equaled 2.47 million metric tons for the year.

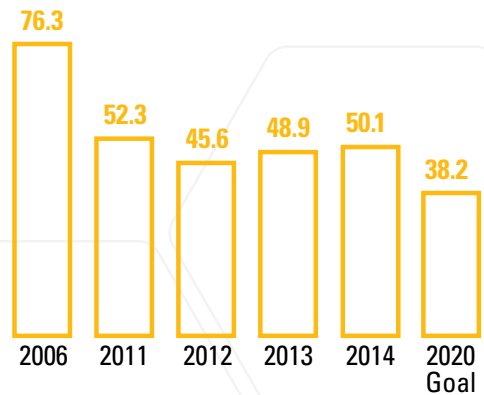
2.47 **Total Absolute GHG Emissions**
Million Metric Tons



WATER GOALS & PROGRESS

 **Goal:** Reduce water consumption intensity by 50 percent from 2006 to 2020.^{1,2}

50.1 **Water Consumption Intensity^{1,2}**
Absolute thousand gallons of water/
million dollars of revenue

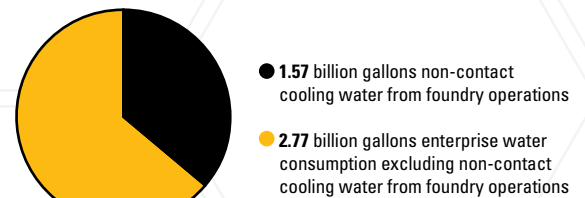


1 Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

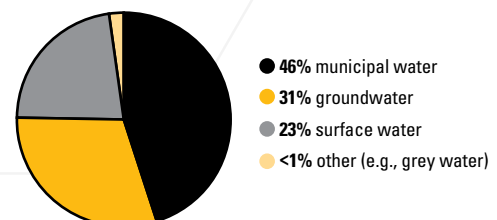
2 Water consumption intensity does not include non-contact cooling water from foundry operations.

Through 2014, we have reduced water consumption intensity at our facilities by a total of 34 percent from our 2006 base year intensity. Our 2014 absolute water consumption, including non-contact cooling water from foundry operations, is 4.34 billion gallons of water.


4.34 **Total Absolute Water Consumption**
Billion Gallons



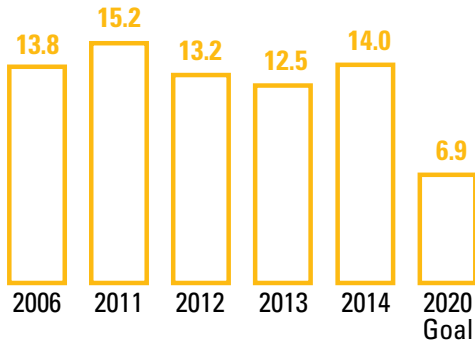
Water Sources



BY-PRODUCT MATERIALS GOALS & PROGRESS

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

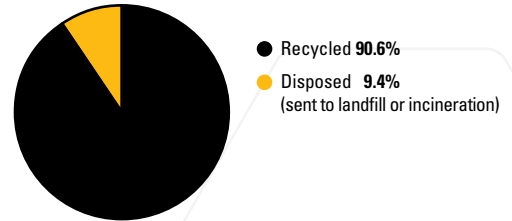
14.0 **By-Product Materials Intensity¹**
Absolute metric tons of by-product materials/
million dollars of revenue



¹ Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.

In 2014, our by-product material intensity increased 1 percent from our 2006 base year. We generated a total of 772,000 metric tons of by-product materials, and 90.6 percent of those materials were recycled.

772 **By-Product Materials**
Thousand Metric Tons



LEED GOALS & PROGRESS

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 2014, 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 Gold

- Track-Type Tractor, Rayong, Thailand
- Caterpillar Financial Center, Nashville, Tenn. (recertification)

LEED Silver

- Caterpillar Corporate Hangar, Peoria, Ill.

LEED Certified

- Caterpillar Energy Solutions, Santa Fe, N.M.

The following facilities were designed and constructed following LEED BD+C or comparable criteria, but were not certified:

- Logistics, Spokane, Wash.
- Underground Mining, Rayong, Thailand

75% Facilities completing construction in 2014 that met LEED or comparable green building criteria. For example:

• **GOLD, Rayong, Thailand – Track-Type Tractor Facility**

This 500,000-square-foot facility, which began production of medium track-type tractors in late 2013, includes an energy-efficient building shell that utilizes a combination of natural and mechanical ventilation and rainwater harvesting for toilets and irrigation systems, among other sustainable construction features. In addition to incorporating energy, water and waste minimization tactics into its operation, the facility’s design supports healthy and energy-efficient practices for employees as well through alternative transportation, preferred parking for low-emissions vehicles and large, open green spaces with native landscaping that requires less irrigation.

• **GOLD Recertification, Nashville, Tenn. – Cat Financial**

The Caterpillar Financial Center is an 11-story, 324,000-square-foot office building in downtown Nashville, Tenn. In March 2009, this property became the first privately owned commercial office building in the state to achieve LEED for Existing Buildings certification. In May 2014, the Caterpillar Financial Center was awarded LEED Gold recertification. Over the past five years, Cat Financial has built a more sustainable culture by implementing a compost/recycle/waste program to position its headquarters to achieve a goal of zero waste by 2020.

• **Certified, Santa Fe, N.M. – Caterpillar Energy Solutions**

Caterpillar Energy Solutions in Santa Fe, N.M. completed a LEED-certified building expansion that nearly doubled the previous manufacturing capacity of the facility. During construction, nearly 95 percent of the waste generated on-site was diverted from landfill to be recycled or reused and the new building materials contained more than 24 percent recycled content. The building was designed for energy and water efficiency, and is purchasing “green” power through agreements with the local electricity provider.

PRODUCT STEWARDSHIP GOALS & PROGRESS

SAFETY

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

Progress: See Focus Areas 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.

18% 2014 reported sales and revenues derived from products, services and solutions that demonstrate an improved sustainability benefit over existing offerings.

Progress: In 2014, 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.

SYSTEMS OPTIMIZATION

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


47% Increase in fleet hours managed by Caterpillar Job Site Solutions (2013 to 2014).

46% Increase in number of machines covered by services agreements with Caterpillar Job Site Solutions (2013 to 2014).

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.

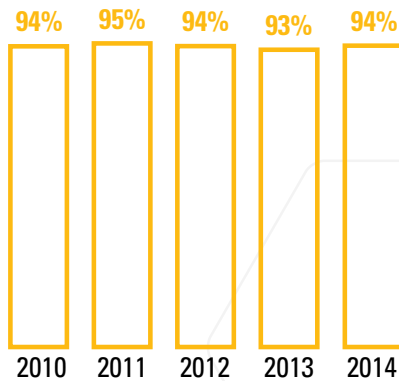
PRODUCT STEWARDSHIP GOALS & PROGRESS

REMAN AND REBUILD

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

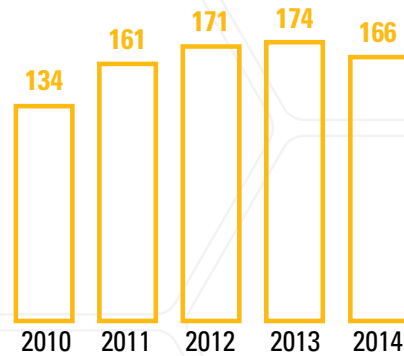
Progress: Our reman and rebuild businesses reduce waste and minimize the need for the raw materials necessary to produce new parts. This system is where Caterpillar is making some of its greatest contributions to sustainable development – keeping nonrenewable resources in circulation for multiple life cycles. Our reman sales increased 4 percent from 2013 to 2014, while our rebuild sales increased 1 percent during the same period.

94% Reman End-of-Life "Take Back" Percent ¹
Actual end-of-life returns/eligible returns x 100



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

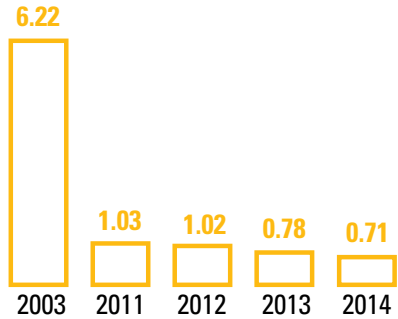
166 Reman End-of-Life "Take Back" by Weight ¹
Millions of pounds of end-of-life material received



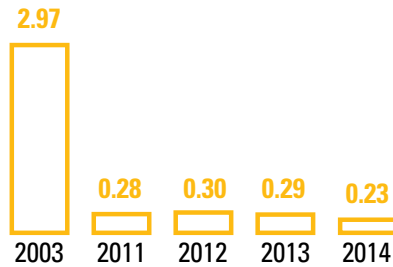
¹ Data does not include Progress Rail, Electro-Motive or Solar Turbines.

PERFORMANCE AT-A-GLANCE

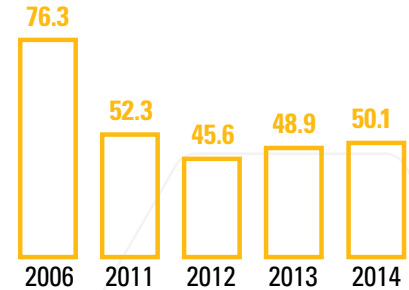
Recordable Injury Frequency (RIF)¹
Recordable injuries per 200,000 hours worked



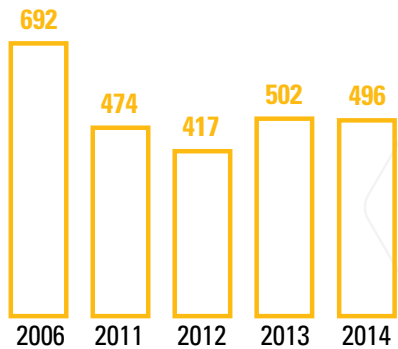
Lost-Time Case Frequency Rate (LTCFR)¹
Work-related injuries resulting in lost time per 200,000 hours worked

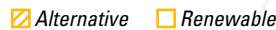


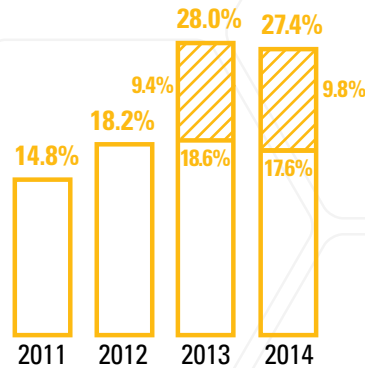
Water Consumption Intensity^{2,4}
Absolute thousand gallons of water/ million dollars of revenue



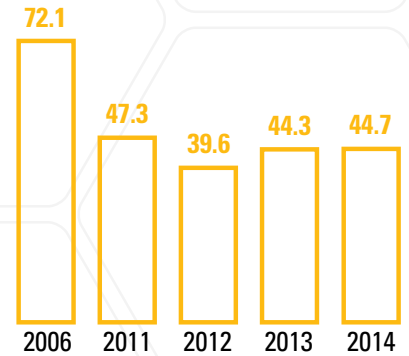
Energy Intensity²
Absolute gigajoules energy use/ million dollars of revenue



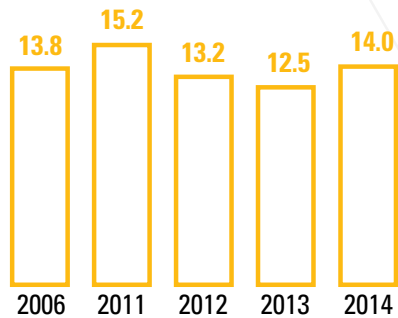
Alternative/Renewable Energy
Sum of renewable and alternative electrical energy use/total electrical use x 100




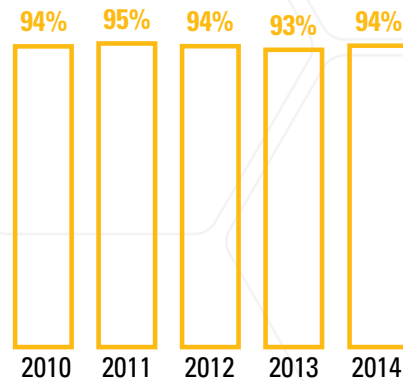
GHG Emissions Intensity²
Absolute metric tons of CO₂e/ million dollars of revenue



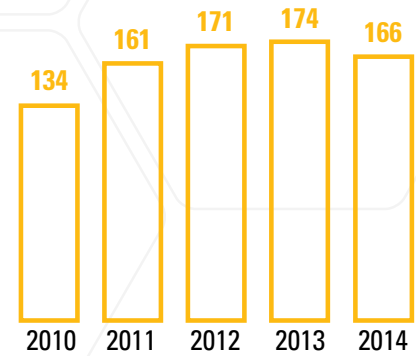
By-Product Materials Intensity²
Absolute metric tons of by-product materials/ million dollars of revenue



Reman End-of-Life "Take Back" Percent³
Actual end-of-life returns/eligible returns x 100



Reman End-of-Life "Take Back" by Weight³
Millions of pounds of end-of-life material received



1 Data prior to 2014 has been restated due to a) data updates realized from improved accuracy and b) updates to goal reporting format.
 2 Data prior to 2014 has been restated due to a) acquisitions, b) divestitures and c) data updates realized from improved accuracy.
 3 Data does not include Progress Rail, Electro-Motive or Solar Turbines.
 4 Water consumption intensity does not include non-contact cooling water from foundry operations.



Legal Statements

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FORWARD-LOOKING STATEMENTS Certain statements in this 2014 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 Feb. 17, 2015 for the year ended Dec. 31, 2014.