2014

Caterpillar Sustainability in China

Engaging our Stakeholders to Achieve Success in Sustainability

CATERPILLAR®

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.

MISSION

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

STRATEGY

Our strategy is to provide work environments, products, services and solutions that make safe, productive and efficient use of resources as we strive to achieve our vision.

We apply innovation and technology to improve the sustainability performance of Caterpillar's products, services, solutions and operations. We believe sustainable progress is made possible by developing better systems that maximize life cycle benefits, while also minimizing the economic, social and environmental costs of ownership, as reflected in our sustainability principles.

We will execute our strategy by working to meet our aspirational sustainable development goals.

OUR SUSTAINABILITY PRINCIPLES

CUSTOMERS

OPERATIONS

PHILANTHROPY

Foreword

Due in part to its sustainability principles, Caterpillar has received recognition for its operations in China. For Caterpillar, working with stakeholders to develop more sustainable value chains is at the very essence of our success in this country. Therefore, the Caterpillar Sustainability in China 2014 Report not only includes continued introduction of the best practices of our China facilities in sustainability, but also focuses on the successful practices of its China customers, dealers and suppliers, supported by Cat® products, services and solutions, showing how they have saved energy, increased efficiency, reduced impact on the environment and championed projects that help people and develop communities. During the development of this report, Caterpillar has received contributions and support from its customers, dealers, suppliers, business units, facilities, research and development centers, and social philanthropy organizations.

In 2015, Caterpillar is celebrating its 40th anniversary in China. This report, along with the company's business performance, is an inspiring illustration of Caterpillar's achievements in the country. The progress that has been made will continue to provide a foundation for the future efforts of Caterpillar.

Chairman's Message

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 work with and respond to our stakeholders as we implement our strategy to achieve comprehensive success in sustainability. We are focused on protecting 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 throughout China and the world.

We elevated Sustainability to one of Our Values in Action in 2014, but sustainability is not new to us at all. "Making Sustainable Progress Possible" has long been a cornerstone commitment to our stakeholders - our customers, shareholders and employees.

Sustainability is often defined as a three-legged stool, and each leg - economic, environmental and social - has to be equal, or the entire system will be out of balance. We have long known and taken actions to balance these three aspects of our business as we pursue sustainable progress.

In this report, you'll learn about several examples of this commitment in China, from emission and waste reduction in our China facilities to reclamation of former mine sites and efficient agricultural development. We are proud of our record and we are always focused on improving. Those improvements will continue to come from driving innovation and using technology to improve our products and services, in every segment of our company.

Sustainability drives innovation at Caterpillar; through innovation and technology, we reduce resource consumption, emissions and their associated costs.

Caterpillar envisions 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.

We are especially proud of our continued safety record improvements. Our safety record is among the best of any industrial company today. In 2014, we decreased our enterprise recordable injury frequency to 0.71. That's a 9 percent reduction from 2013. We started our intense journey to improve enterprise-wide safety more than a decade ago, and we'll never let up.

Our employees live in the communities near the Caterpillar facilities where they work, so we are personally interested in improving those communities. The Caterpillar Foundation supports families and communities through grants targeted to alleviate the root cause of poverty and provide paths to self-sufficiency and prosperity. In China, the Foundation supports education, environment and basic human needs programs - this report includes details on those programs.

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.

Caterpillar also 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.

We are a company built on values; 2015 is our 90th anniversary as a company living and operating according to these values. And in 2015, we celebrate 40 years doing business in China, 40 years helping to make sustainable progress possible for China's people and China's future.

Doug Oberhelman
Chairman and Chief Executive Officer
Caterpillar Inc.

China Chairman's Message

China is an important market for Caterpillar and one of the keys to our success. We already have an extensive history of dedication and service in China, and we are committed to investment and long-term growth into the future.

However, we have seen a rapid increase in the consumption of resources including energy, giving rise to more environmental issues in China. To help combat these issues, Caterpillar is dedicated to the implementation of sustainability practices and methodologies that work in harmony with the economic, environmental and social development of the country.

By engaging with our stakeholders, especially our customers, dealers and suppliers in a shared vision of sustainable progress, we have together achieved remarkable goals in many industries.

One area in which our products and services have helped mining customers operate more sustainably is mine site restoration. For instance, Yunnan Phosphate Chemical Group Co. Ltd has restored almost 16.67 square kilometers (km^2) of land. The Aluminum Corporation of China has restored 3.8 km^2 in their Guangxi mine site. In new rural development, our Cat® products have enabled our customers to contribute to the beautification of the countryside around them. In Nanchong of Sichuan province and Jiuquan of Gansu province, our machines supported customers as they transformed farm land, constructed greenhouses and constructed effective irrigation systems. This has greatly improved the quality of the water supply to these communities. In the steel industry, our combined heat and power (CHP) equipment has been applied in Shanxi Li Heng Iron & Steel Co., Ltd, which will reduce annual CO_2 equivalent emissions by 301,000 tonnes, equivalent to reducing the annual emissions by more than 55,000 cars. Moreover, Caterpillar is continuing to offer advanced technology solutions to our customers that provide better fuel efficiency, shorter down time and enhanced operational safety.

In addition to our cooperation with our customers in the promotion of sustainable development, our facilities in China have been continuously improving production methods, making progress in reducing electricity and water consumption, decreasing emissions and waste, and ensuring the safety of our employees.

All the achievements mentioned in this report showcase our great confidence in China and its people, and a dream of constructing a better tomorrow for everyone. Today, we have 29 manufacturing facilities, four research and development centers and three logistics and parts distribution centers in China alongside a large local supply chain. The Caterpillar China team has also grown to 13,000 people, all of whom are dedicated to fulfilling our sustainable development vision and mission.

In the Statement of the 25th Anniversary of Asia-Pacific Economic Cooperation (APEC), all APEC members are committed to sustainable growth, addressing environmental challenges through closer practical cooperation. Advocating the spirit of APEC China 2014, we are committed to driving economic, environmental and social improvements through our more sustainable operations, products, services and solutions, as well as philanthropic practices. This approach is consistent with Caterpillar's broader sustainability strategy worldwide. In line with our 2020 sustainable development goals for operations and product stewardship and ongoing focus on innovation, Caterpillar will continue to promote sustainable progress through our products, services and solutions. And in partnership with our customers, dealers and suppliers we will support the long-lasting success of the company worldwide, and contribute to a more prosperous and magnificent China.

Qihua Chen
Vice President of Caterpillar Inc.
Chairman of Caterpillar (China)
Investment Co., Ltd.

About This Report

Caterpillar has spent the past 40 years growing and evolving both in and alongside China. Since our arrival here in the 1970s, we have remained committed to sharing our knowledge and expertise in order to help the development of China and its people.

Caterpillar has committed a great deal of time and capital over the years towards developing our facilities in China with the goal of having a positive impact on the communities of which they are a part. Our business model corresponds to the desire from China's economic policymakers to focus on transforming the Chinese economy into one characterized not only by rapid growth, but also sustainable and high quality growth.

The long-term sustainability approach outlined in this report is one we actively encourage our customers, dealers and suppliers to adopt also. Our mission is to implement sustainable processes throughout our entire value chain. Our efforts in this regard reached new heights in 2014.

The Caterpillar Sustainability in China 2014 Report has been compiled referring to the theoretical framework, Chinese Academy of Social Sciences (CASS) Four-in-One Model, which is presented in the Guidelines on Corporate Social Responsibility Reporting for Chinese Enterprises (CASS-CSR 3.0). The guideline is developed by the CSR Research Center of the CASS.

The CASS Four-in-One Model integrates four essential CSR elements (Responsibility Management, Market Responsibility, Environmental Responsibility and Social Responsibility) into one foundational framework. Responsibility Management - or, rather, how to implement the supporting three elements - resides at the model's core, encompassing strategy, governance, integration, performance, communication and research responsibilities. Market Responsibility describes a corporation's obligations to its customers, shareholders and partners. Environmental Responsibility focuses on environmental management, efficient use of resources and energy as well as emission reduction. Social Responsibility concentrates on a company's duty to comply with the law and ensure employee well-being, as well as its responsibilities to the community as a whole.

Through a selection of case studies, this report showcases Caterpillar's sustainability practices in China. For more comprehensive information about Caterpillar's sustainability milestones worldwide, please refer to Caterpillar's 2014 Sustainability Report at

http://www.caterpillar.com/en/company/sustainability/sustainability-report.html

1 OUR 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

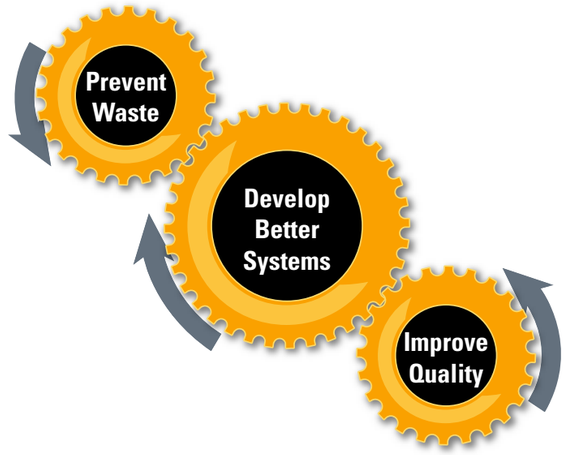
(TEAM, COMMUNITY, ENVIRONMENT AND OPERATIONS)

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.



2 CUSTOMERS

Mine Reclamation

China's mining industry has provided important resources for its economic development. In August 2010, China's Ministry of Land and Resources launched the "Green Mine Building Initiative." The initiative will convert China's mineral resource development process from traditional development to a more sustainable model, characterized by resource savings, energy conservation and emissions reduction.

Two Caterpillar customers, Yunnan Phosphate Chemical Group Co., Ltd. and CHALCO Guangxi, are role models in the Chinese program called "Green Mining" according to the Ministry, who have effectively conducted mine land reclamation to benefit the communities and the environment.

Reclaiming Mine Lands

Located in Jinning County, Kunming, Yunnan Province, Yunnan Phosphate Chemical Group Co., Ltd. (Yunnan Phosphate) is focused on geological surveying, mine design, technical development, phosphorite mining and dressing, phosphorus chemicals and trade. Yunnan Phosphate has four open-pit mines, including the Kunyang Phosphate Mine, the Haikou Phosphate Mine, the Jinning Phosphate Mine and the Jianshan Phosphate Mine. In 2013, Yunnan Phosphate manufactured 16.72 million tonnes of crude ore, removed 49.33 million cubic meters (m^3) of mining mass, and reached an operating income of RMB 5.69 billion (approx. USD 0.93 billion).

Yunnan Phosphate started reclaiming mine land in the 1980s. It developed a Mine Plantation Recovery plan according to its mining schedules, and included the plan in the company's mid-term and long-term strategies and annual production plan. Yunnan Phosphate increased its commitment to sustainability in 2004, further investing in mine land reclamation along with other environmental and ecological initiatives.

Yunnan Phosphate's approach to mine land reclamation has evolved over time to become more sustainable. Whereas at one time, the original overburden would be removed to an external site, it is now used as fill for the area. This new process makes it easier for plants to grow in the fill and reduces the land the company needs for external storage of overburden. This process requires an efficient, steady and reliable collaboration of a large number of machines and equipment to achieve mining and reclamation at the same time.

In four of Yunnan Phosphate's mines, 34 Cat® machines are engaged in mining and reclamation, including 20 Cat® 773E off-highway trucks for overburden transportation, five Cat D9T and two Cat D9R track-type dozers for stripping operations, three Cat D8R track-type dozers for soil dumping at the dump site and one Cat 988H wheel loader for short-distance ore unloading. In addition, two Cat 160H and Cat 14G graders are used for road maintenance to ensure smooth operations of the mines.

"Most employees at our mining sites have a great loyalty to Caterpillar and Cat® equipment. Yunnan Phosphate first started using Cat machines in the 1980s and they have made a great contribution to the company's growth. Our Cat equipment is mainly used for the transportation and dumping of overburden and the flattening of the dump site," said Liu Hong, mine manager of Kunyang Phosphate Mine, Yunnan Phosphate.

As of 2014, Yunnan Phosphate has invested more than RMB 200 million (approx. USD 33 million) in the reclamation project and planted more than 25,000 mu of trees (approx. 16.67 km^2), with the vegetation rate of the reclaimable land at 94 percent. As a result, the ecological environment of mine sites has been effectively recovered and remediated, and forests, to some extent, have formed in the reclaimed vegetation zone.

Between 2011 and 2012, Yunnan Phosphate's four mines were awarded the title of "Pilot National-Grade Green Mines" by China's Ministry of Land and Resources. In December 2014, Kunyang Phosphate Mine and Haikou Phosphate Mine of Yunnan Phosphate were listed among the first 35 national-grade "Green Mines."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Reclamation Creates Productive Farmland

Pingguo County is a part of Baise, Guangxi Province, which is home to CHALCO Guangxi, an aluminum smelting company that specializes in mining and manufacturing of alumina and electrolytic aluminum. Founded in 1994, the company is China's most technically advanced aluminum production base, and has an annual bauxite mining output of 7 million tonnes and annual alumina mining output of 2.5 million tonnes.

CHALCO Guangxi mine is the first karst accumulation-type aluminum mine in the world. Karst is a distinctive topography in which the landscape is largely shaped by the dissolving action of water on carbonate bedrock, accompanied by the significant problem of soil erosion. Pingguo County's arable land per capita is only 0.75 mu (approx. 500 m^2), less than half of the average in China overall.

To support a sustainable approach and provide arable land to farmers, CHALCO Guangxi has been carrying out land reclamation in gob areas since 1998. The company has reclaimed the land in a systematic way using blasting techniques with biological reclamation using crop planting. The company adopted an ecological technique in the engineering reclamation stage. The ore body in this region consists of shallow and thin layers of ore that are spread throughout the site. The rainy conditions keep roads wet and muddy, and the scattered mineral occurrence makes it difficult to form major transportation routes, which creates a number of challenges for the equipment used in mining operations and reclamation.

Faced with rough conditions that are difficult to handle, CHALCO Guangxi chose Cat® machines for its reclamation project. With excellent performance, reliability and durability, these machines serve as the backbone of mine development, stope preparation and reclamation operations regardless of the complicated topographical conditions. The company has 12 Cat® 740 articulated trucks, two Cat D10R track-type dozers, two Cat D10T track-type dozers, one Cat D10N track-type dozer and nine Cat® hydraulic excavators.

Zhou Zhiqiang, a business supervisor at the site's equipment administration center, said, "The mine has come to rely on the equipment's low failure rate and high availability. The oldest Cat® machine has been running for more than 20 years. The Cat® equipment offers reliable quality and high productivity."

According to Wang Kang, vice mine manager of the mining department at CHALCO Guangxi, 10 mu (approx. 6,666 m^2) of land is mined every day, and the mine land is reclaimed immediately. After one or two years of soil fertility improvement, the reclaimed land will be returned to farmers. Reclamation not only prevents soil erosion, but also provides local farmers with arable land that supports their income.

With the assistance of Cat machines, CHALCO Guangxi has reclaimed large areas of land in a short period of time. As of 2014, CHALCO Guangxi had reclaimed 5,700 mu (approx. 3.8 km^2) of mining land with an overall reclamation rate of 100 percent. The company has returned more than 1,800 mu (approx. 1.2 km^2) of land to farmers.

Cat® Mini-Excavator Supports Rural Change

Gansu is an arid, underdeveloped province located in northwest China. Although one of China's largest provinces by size, it has just one percent of the country's water resources, according to a research report by the Chinese Academy of Sciences. A traditionally strong emphasis on farming means 79.2 percent of total water consumption is invested in agriculture, 16 percent higher than average. As a result, more and more water-efficient greenhouses are needed to support local agriculture development.

Zhang Zhongman, who comes from Jiuquan City of Gansu and has many years of experience in operating excavators, is one of the members involved in the construction of such greenhouses using his Cat® 306E. He said he is pleased with the Cat 306E's ability to rotate rapidly during construction, improving efficiency and its average fuel consumption of about 4 liters per hour while doing earthmoving, site preparation and trenching. Over the past two years, Zhang has built more than 200 mu (approx. 133,000 m^2) of greenhouses, which is part of a total area of 17,265 mu (approx. 11.5 km^2) greenhouses that has been built in rural Jiuquan since 2011. The greenhouses have greatly helped in increasing the income of the local rural population.

Zhang also helps build rural roads that support the development of modern agriculture in Gansu. In 2013, Zhang began work on a road project in a remote location - Liuyuan, Guazhou County of Jiuquan. It was cold, windy, sandy and the construction work was difficult. However, Zhang's Cat® equipment maintained normal working power in Liuyuan, which is at an altitude of about 2,500 meters. Thanks to the power of the Cat® excavator, Zhang was able to efficiently flatten the hard gravel road. The improved road conditions helped residents in towns and villages travel around the area. Zhang has also been involved in excavating trenches for heating pipes, farmland transformation, irrigation development and other countryside construction projects.

The high quality of the construction projects that he completed has contributed to improving China's rural landscape and enhancing agricultural production capacity.

Cat® Excavators are Reshaping Rural Landscapes and Helping Create Arable Lands for Rural Communities

Yong Zhixiang's hometown, Dengtai, is located in Shunqing District, Nanchong, Sichuan Province. Dengtai has around 157,000 mu (approx. 105 km^2) of arable land, accounting for 60 percent of the total area of the township. Its main crops include rice, wheat and corn. Given its large portion of arable land, highly effective utilization of farmlands, including farmland development, is vital to the well-being and economic development of the township. Farmland development means turning the patches of unfertile lands - the ones without easy access to irrigation or those not suitable for mechanized operations - into lands that can increase yields by way of leveling and clearing. Dedicated to his hometown, Yong has helped its development and has recognized the importance of Cat® excavators to help lead the project.

Yong's first experiences with Caterpillar came after he purchased a second-hand Cat® 320D hydraulic excavator, which won his favor for its reliability, efficiency and durability. Now, Yong owns two Cat® 307D excavators, one Cat® 307E excavator and one Cat® 312D2 GC excavator. In 2013, Yong worked on a series of farmland development projects in Huaguang Township, including leveling the lands and cleaning out fishponds. All of these projects are helping to develop the rural areas and increase the output and income of local farmers.

In recent years, Yong has supported the development of new rural areas in Laojun Township and worked on a farmland reclamation project in Yuxi Township in Shunqing District. Yong explained that because most of his projects are characterized by higher construction difficulty and a tighter schedule, they demand high performing mechanical equipment. Thus, Yong trusts the greater power, faster movement and lower failure rates from his Cat excavators, which have duly ensured that he has met his construction schedules.

Since his business involvement in new rural area development, Yong feels very proud of having made contributions to the progress of his hometown. Today, a quality network of roads has connected every family in his community. Vegetables and fruit trees have been planted on the recently leveled lands, helping to increase harvesting incomes in this area. By providing high performing, reliable and efficient machinery, Caterpillar is helping people like Yong contribute to the development of their own rural communities and hometowns.

New Industrialization:

Intelligent Management Enables Efficient and Safer Production

Cement is a vital component of China's vast infrastructure projects. Consequently, the country has been the world's largest cement producer for many years. Through a combination of advanced management ideas and technology such as Cat® Connect, Guangdong GITIC Green Island Cement Co., Ltd. (Green Island Cement) has succeeded in introducing significant sustainability improvements to the production process itself in the form of reduced emissions and more efficient resource consumption.

After spending many years working at mine sites in Australia, He Jianrong, general manager of the mining department at Green Island Cement, is highly skilled at mine management. He has made several improvements in terms of production and equipment management.

To increase the limestone mining yield, Green Island Cement purchased nine Cat® machines, including one Cat 336D excavator, one Cat® 374D excavator, one Cat 988H wheel loader and six Cat 773E off-highway trucks. The Cat 336D excavator, equipped with a Cat® hammer, is mainly used for the secondary breaking of stone. The other machines are mainly used for truck loading. The Cat 374D excavator and the Cat 773E off-highway trucks, in particular, are perfectly matched to deliver outstanding efficiency. With a powerful drive and huge bucket, the Cat 374D excavator is able to fully load the Cat 773E off-highway truck with a capacity of 35.2 m^3 in two minutes and 30 seconds. The fully loaded trucks then transport the mineral at a speed of 30 kph, increasing loading and transportation capacity to 4.5 trucks per hour, a significant improvement on the previous capacity of three trucks per hour.

Through He Jianrong's mining operation monitoring, the company found that employees and mining equipment worked for around 10 hours per day. With time for equipment maintenance factored in, the actual mining operation hours were only around nine hours per day. The company also discovered that operational efficiency at night was 10-20 percent lower than during the daytime, which increased production cost and more safety hazards are present when working at night. At the suggestion of He Jianrong, Green Island Cement introduced Cat® Product Link™, one technology serves to the Equipment Management element of Cat® Connect.

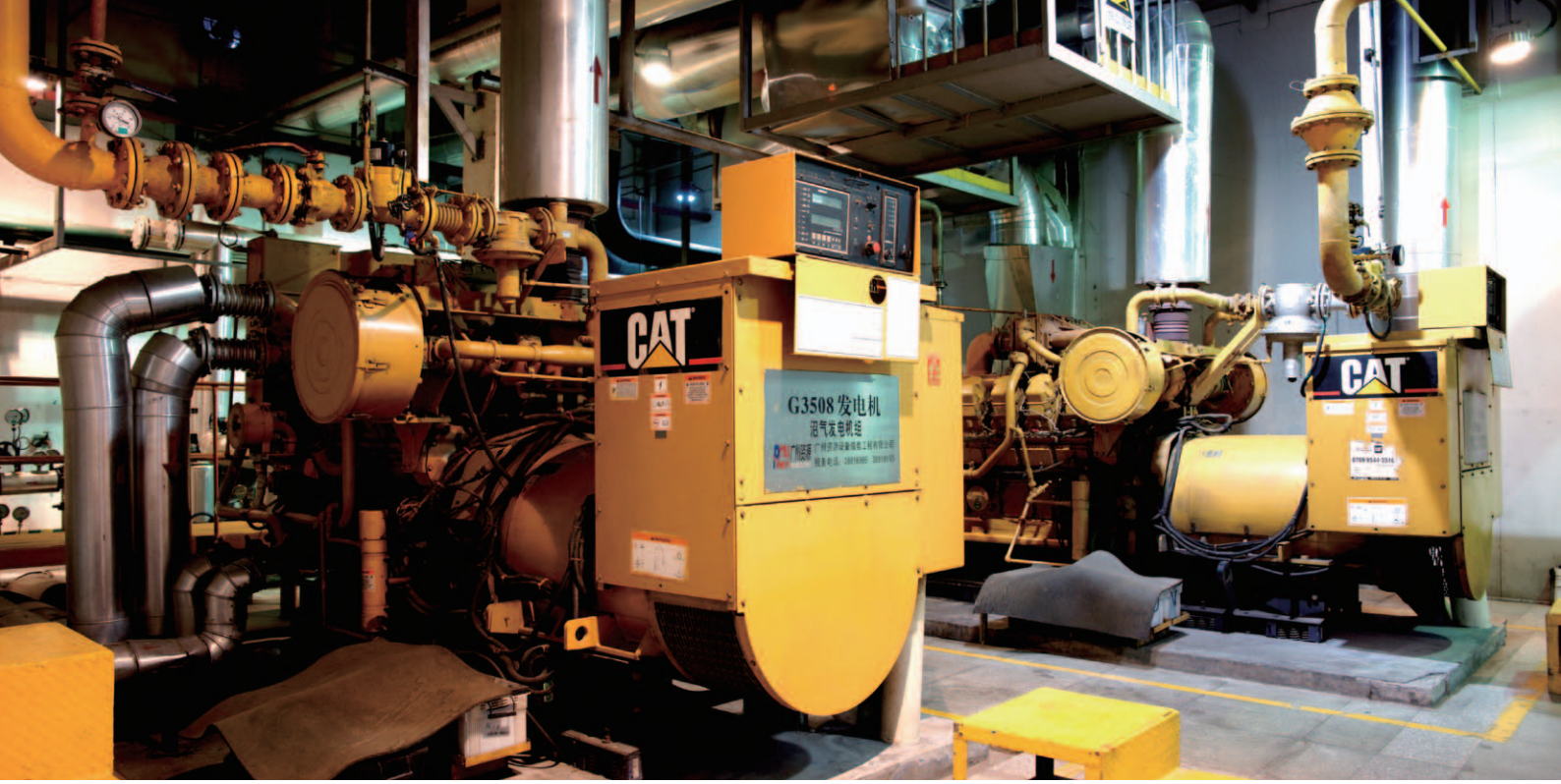
Cat Connect is used in the construction industry across the world, and Caterpillar has made several adaptations to tailor its technology to the operational needs of its Chinese customers. Thanks to his experience in Australia, He Jianrong

had used Cat Connect for a long period of time and was keen to implement the technology into operations at Green Island Cement.

"Now, all six of our Cat 773E off-highway trucks are equipped with Truck Production Management System (TPMS). At two-week intervals we work with Cat service engineers and agents to analyze data and solve any problems in order to maximize the mining operation efficiency," said He Jianrong.

The Cat® Product Link™ provides various data, such as equipment position, operating condition, fuel consumption and working condition status. Based on the data that they receive, managers can adjust the construction plan, and improve the collection process to enhance fuel efficiency of equipment and increase the mining yield. According to He Jianrong, this technology helps optimize the efficiency of the equipment. For example, a disorganized arrangement of the trucks when transporting minerals will increase the number of truck trips, resulting in more greenhouse gas emissions, increased noise levels and dust at the job site, and increased health hazards for workers. With the various diagnostics, analysis and reporting tools of Cat Connect in place, the company can fully monitor the working condition of its equipment and manage and maintain the equipment more effectively, reducing down time and enhancing operational safety. With a Cat S·O·S℠ Oil Sampling & Fluid Analysis System in place, managers can periodically collect samples of lubricants and hydraulic fluids from different positions on each Cat® excavator, and submit the samples to Caterpillar engineers for analysis. Any part at risk of failure can be repaired to avoid potential incidents and delays in the production schedule.

As of 2014, with the assistance of Cat® equipment and Cat Connect, Green Island Cement has committed itself to the concept of sustainable development for "high efficiency, low consumption of fuel, safety and environmental protection." The company has increased its annual output from one million tonnes to 3.8 million tonnes.



Recycling Biogas with a Combined Cooling, Heating and Power (CCHP) Generator System

Industry pioneer Guangzhou Zhujiang Beer Group Co., Ltd. (GZBC) is generating its own energy by recycling biogas generated in its production process. In December 2012, the company became the first Chinese brewery group to integrate emissions control and sustainable production into its manufacturing processes through a UN Clean Development Mechanism project.

With an annual production capacity of 15 million hectoliters, GZBC is the second largest brewery in China.

The industrial wastewater generated in the brewing process has to be treated before discharge. In the anaerobic treatment stage at the processing site, the wastewater treatment system of GZBC produces 10,000 - 12,000 m^3 of biogas every day, of which 70 - 85 percent is methane. In the past, the biogas was directly discharged. In 2005, the company began looking for a combined cooling, heating and power (CCHP) generator system to help enhance its energy efficiency and improve its generating capacity. Because the production of biogas from grain and yeast by-products at the brewery are seasonal, the design of the power system would need to accommodate variable load conditions. GZBC quickly realized that this would be the first challenge that they would have to overcome if they were to introduce a CCHP system into their operations.

To solve the problem, GZBC turned to Cat® dealer, the China Engineers, Ltd. (CEL), who have significant CCHP product experience. After a comprehensive cost analysis, including initial investment and operating costs, CEL proposed two biogas generator sets with different output ratings: one Cat® G3508 gas generator set and one Cat® G3516 gas generator set. The generators in the CCHP system use the plant's recovered biogas to generate power and transfer waste heat produced from the cooling and exhaust systems of the engine to the refrigerators, thus compensating for the seasonal biogas supply at the brewery in different seasons. The efficiency of the CCHP system can be up to 80 percent.

GZBC's customized CCHP system has had a significant impact on both the company's energy costs and its ecological footprint. Currently, the system generates 7 million kWh of energy and reduces biogas and CO_2 equivalent emissions by 2.5 million m^3 and 20,000 tonnes per year, respectively.

Solar Turbines' Combined Heat & Power Solution Turns Coke Oven Gas into Power

Solar Turbines, a Caterpillar company, is a leading global manufacturer of distributed energy and resource-based combined heat and power (CHP) equipment. Its industrial gas turbines and integrated solutions are extensively used in pulping/papermaking, rubber/tires, brewing, food processing, airports, hospitals, conference and exhibition centers as well as steel, coking, petrochemical and other industrial fields.

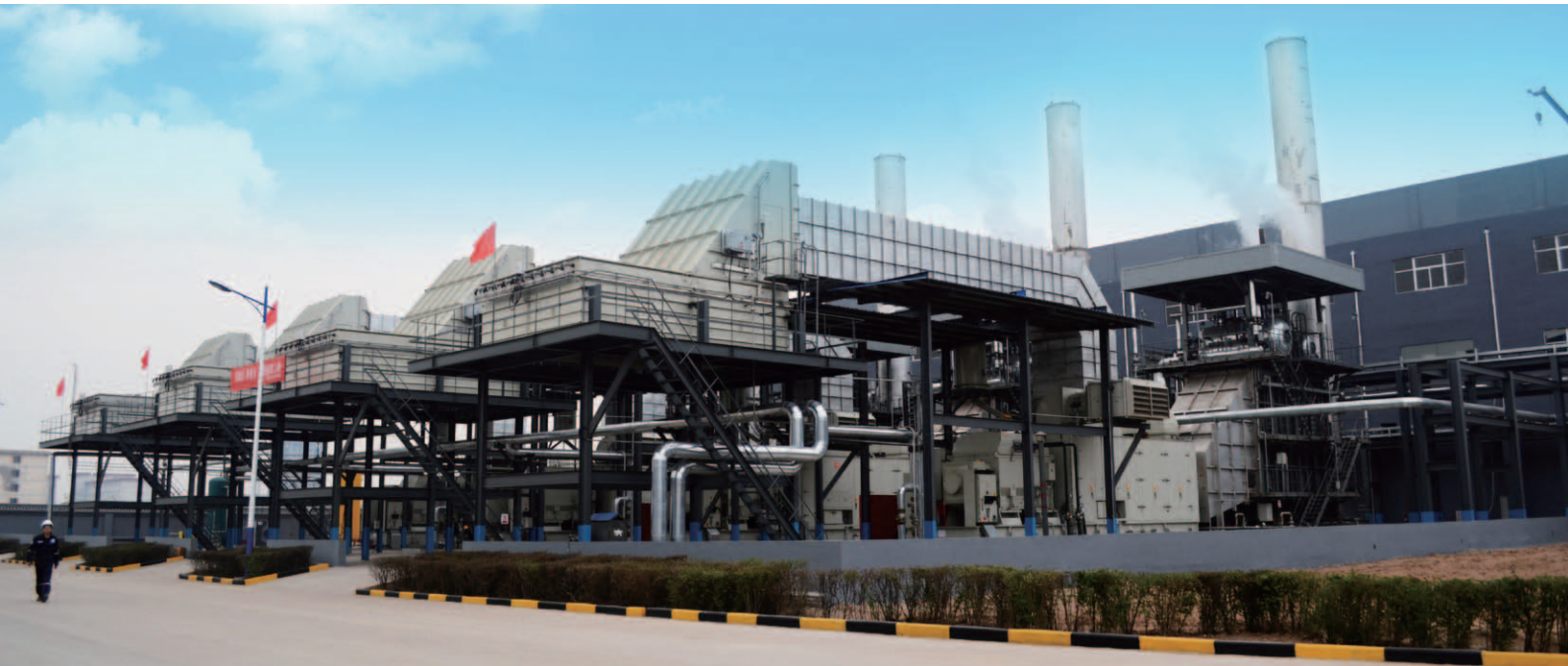
The distributed energy solutions from Solar Turbines typically have an energy efficiency of up to 70 - 90 percent or even higher when exhaust gas is used for drying purposes. Compared to traditional industrial energy systems, it may reduce CO_2 equivalent emissions by more than 60 percent. Its premixed dry, low-NOx combustion technologies can satisfy the most stringent of environmental emission requirements. Amongst a great number of advantages, the CHP system of Solar Turbines can reduce emissions, improve energy efficiency, and increase safety and reliability. As such, the system is widely acclaimed by government and corporate users alike. Today, more than 2,300 Solar Turbines' CHP system units are being used worldwide, of which 80 units are working in China.

Shanxi Li Heng Iron & Steel Co., Ltd. (Li Heng) is an important customer of Solar Turbines in China. As a joint-stock steel enterprise integrating coking, iron-making, steel-making, steel-rolling, gas power generation, CHP, granulating slag powder, sewage treatment, railway forwarding and international trade, it has an annual output of more than 5 million tonnes of steel.

Coke is the main raw material of iron and steel, and coke oven gas (COG) is a major by-product of the coking industry. COG is a gas of low calorific value, and can be converted into electricity and steam. China is a major coke producer; China's coking enterprises produce approximately 90 billion m^3 of COG annually, according to the China Industry Research Network. How to comprehensively utilize this huge resource has become a great focus for coking enterprises. Li Heng uses four Solar Titan™ 130 gas turbine COG CHP systems with an installed capacity of 55.5 MW and a reduction of 85.86 tonnes of steam per hour. Based on this solution, Li Heng can reduce annual CO_2 equivalent emissions by 301,000 tonnes, equivalent to reducing the annual emissions from more than 55,000 cars. Li Heng not only attaches great importance to understanding and managing new technologies, but also actively uses technology to optimize its system configuration. Since the commencement of operations, the system has been running steadily and has produced substantial returns.

In 2014, Li Heng was granted the "Certificate of Avoided GHG Emissions" by the U.S. Environmental Protection Agency's (U.S. EPA's) Combined Heat and Power Partnership for its outstanding achievements in reducing CO_2 equivalent emissions with CHP. It became the second non-U.S. company recognized by this award. Henan Cheng Yu Coking Co., Ltd. another Solar customer, is the first Chinese company to have received the award from the U.S. EPA Combined Heat and Power Partnership.

Note: The U.S. EPA Combined Heat and Power Partnership began granting the "Certificate of Avoided GHG Emissions" in 2006 to record the carbon emission reductions in the operation of CHP collaborative projects. The certificate process recognizes the achievements of companies using CHP to reduce carbon emissions.



Sustainable Development in Collaboration

Caterpillar is committed to supporting suppliers in China as they enhance their product quality and operate more efficiently through excellent business management practices and technical innovation.

A seat supplier for Caterpillar's machine business, Zhejiang Tiancheng Seat Co., Ltd. (Tiancheng) was established in 1992 and is a well-respected company, with more than 600 employees. In the beginning of the company's history, Tiancheng had a long order to delivery cycle. The long lead times meant the company had inefficient activities in production and operation. Time, manpower and resources were not optimized resulting in a negative impact on production efficiency and quality.

Since 2007, Caterpillar has been collaborating with Tiancheng to improve their total quality management across areas of design, production and quality control. Caterpillar sent a Caterpillar Production System (CPS) specialist to help Tiancheng promote CPS and Lean production. Tiancheng also hired a third party to help introduce the concept of Lean production into all of their processes. Additionally, the Global Purchasing Team from Caterpillar Research & Development (China) Co., Ltd. (CRDC) helps Tiancheng carry out 6 Sigma Quality Management System and implement Advanced Production Quality Planning (APQP) in the company.

The advantages provided from the increased strategic planning improved Tiancheng's overall efficiency. Thanks to these efforts, Tiancheng's product quality has significantly improved, lead time has shortened to two weeks, and production costs have been reduced by about two percent. Tiancheng's annual sales volume is one hundred times as much as they began to supply products to Caterpillar in 2008. In 2009, Tiancheng was first awarded with a bronze medal certification in the Supplier Quality Evaluation Program, a supplier certification system introduced by Caterpillar. In 2014, it successfully won the gold medal certification.

The pass rate of product is an important indicator to test an enterprise's quality of production and management. Only by delivering products of high quality can an enterprise have efficient production and meet customers' demand. In addition to Tiancheng, another strategic partner of Caterpillar, Guizhou Liyuan Hydraulic Co., Ltd. (Liyuan), has also benefited from this advanced management concept to improve its product quality. Liyuan is a high technology company that is engaged in the research and development and manufacturing of high-pressure plunger pumps and engines.

In 2011, the APQP team from CRDC utilized 6 Sigma tools to begin work with Liyuan to establish APQP. The objective was to help solve specific quality and technical issues in order to uncover process control problems through process auditing efforts, and introduce new measures in accordance with the findings.

Over the last three years, the pass rate for products at Liyuan has improved significantly, increasing from 14.6 percent in early 2012 to 96 percent today, with the on-time delivery (OTD) rate also rising from 65 percent to 94 percent. The enhanced product pass rate led to cost savings in the production process, while the superior OTD rate ensured a consistent and methodical approach to its manufacturing work. The new management system led to an improvement in Liyuan's brand image and reputation, driving forward the company's continued development.

Improving quality and preventing waste, such as inefficient processes, are two of Caterpillar's Sustainability Principles. Caterpillar believes significant impact can be made by helping suppliers improve product quality and establish efficient and responsive management systems, and takes its responsibility in this regard extremely seriously.

Cat® Hydraulic Excavators Drive Sustainability for Customers in Urbanization Projects

China's newly developed urbanization strategy will serve as a key driver for its future economic growth. China is entering a phase of rapid and large-scale urbanization.

Large-scale infrastructure construction requires a huge number and wide range of machinery. Meeting construction schedules and satisfying environmental regulations demands high productivity and lower exhaust emissions - a difficult balance to find. In recent years, Caterpillar has unveiled Cat® D Series 2 hydraulic excavators and Cat E series mini hydraulic excavators in China that meet both of those requirements.

The Cat D Series 2 has been comprehensively upgraded based on the fuel quality, operator habits and specific working conditions in China. The Cat C7.1 engine has been installed in three new models launched in 2014, namely, the Cat 323D2 L, the Cat 326D2 and the Cat 329D2. The powerful high-pressure common rail fuel injection system in the engine reduces its sensitivity to fuel quality and the automatic engine-speed-control system is activated in no-load/light-load circumstances, reducing fuel consumption by lowering the engine speed and reducing exhaust emissions. The engine meets China Tier II emission standards.

Designed and manufactured at the Caterpillar facility in Wujiang, the new Cat E series models have enhanced levels of quality and performance and deliver lower fuel consumption and maintenance costs. Powered by the new Cat C2.6 DI engine with turbocharger, the Cat 306E and Cat 307E offer a 15 percent improvement in fuel efficiency, while maintaining world class machine productivity. The Cat D series mini excavator is a proven, reliable model that maintains the excellent durability and reliability of previous Cat products. Designed on the Cat D series, the Cat E series has made improvements in two critical components. In terms of engine efficiency, Cat E series mini hydraulic excavators use a new fuel-efficient Cat C2.6 DI engine with turbocharger that has enhanced cold start capability and features a one-touch "Standard/Power" dual mode. In addition, the hydraulic system has been fully upgraded to deliver an enhanced hydraulic efficiency.

The Cat D Series 2 has been used in a number of modernization infrastructure projects in recent years. Some examples are: Cat® loading equipment has been used in daily operations at Qingdao Port, and Cat® excavators are being used in the construction of an expressway from Changde to Jishou in Hunan Province, and on the Tianjin Road Maintenance Project.

In early 2015, Caterpillar launched the Cat 336D2 XE, a new model of excavator with a hydraulic hybrid drive. The model can store the energy consumed by the engine at idle speed to raise fuel efficiency. It not only carries out operations with high efficiency but also reduces fuel consumption significantly. When compared with the standard Cat 336D2 model, the Cat 336D2 XE can further reduce fuel consumption while still delivering the same excavating and lifting capabilities. This model helps its customers significantly improve production while realizing economic and environmental benefits.

3 OPERATIONS

Goals & Progress

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

① Caterpillar does not set country specific sustainability goals.

Safety

Deploying a Behavior-based Safety Management System

Caterpillar (China) Machinery Components Co., Ltd. (Wuxi Facility) is a wholly-owned subsidiary of Caterpillar that was established in 2005. The company manufactures and assembles machinery components for other Caterpillar facilities in China and around the world. While high production efficiency is a priority for the facility, the safety of its employees is always paramount.

In 2012, an employee perception survey at the Wuxi Facility showed that all of the areas with an 80 percent improvement opportunity were behavior-related. The areas for improvement included: operating procedures, awareness programs, discipline and attitudes towards safety.

In order to better deploy its safe operation principles, establish a safe production environment and ensure the safety of its employees, the facility began implementing a new observation program to detect unsafe behaviors in December 2012. First, the Wuxi Facility adopted a new safe behavior recording mode. Indicators recorded the number of consecutive calendar days between safety violations, an effective method of identifying potential risk. In addition, through safety observation and risk identification across different jobs, a standardized safety language was created that defined unsafe behavior. Based on these findings, job safety observation cards were developed and distributed. Checklists and images were utilized to illustrate more than 800 examples of unsafe behaviors or working conditions across 36 different job positions, helping employees comply with safety procedures during operations. Furthermore, a "Responsible, Accountable, Consulted, Interaction" responsibility matrix model was introduced to improve workflows and reinforce safe behavior amongst employees.

The Wuxi Facility has greatly benefitted from its behavior-based safety management system. After implementation, the number of recorded incidents at the facility in 2014 fell by 43 percent compared to 2012.

Power Savings

Forklift Replacement

Caterpillar Xuzhou Ltd. (Xuzhou Facility), Caterpillar's flagship facility in China, relies on a considerable amount of internal transfer equipment to support its annual build schedule. In order to reduce emissions from diesel engines, the facility has, since 2009, conducted a series of improvements.

Initially, the facility implemented an equipment upgrade plan to replace its traditional forklifts with electric forklifts, a move that helps save energy and reduce emissions. The facility has replaced eight traditional forklifts every year. Given that a traditional forklift consumes 5.24 tonnes of diesel every year, 41.92 tonnes of diesel were saved, equal to a reduction of 133.57 tonnes CO_2 equivalent emissions in the past year. In total, about 880.32 tonnes of diesel has been saved in the past six years, equal to a reduction of 2,800 tonnes CO_2 equivalent emissions.

To further enhance the efficiency of its internal transfers, the facility also found ways of reducing the distance traveled by its forklifts. Rather than using them to move containers of raw materials one by one, the facility organized a system of carts to move raw materials from warehouses to Point-of-Use. Thanks to the new system, the facility reduced the usage of one forklift per year. The result of the change was a saving of 5.24 tonnes of diesel, equal to a reduction of 16.70 tonnes CO_2 equivalent emissions in the past year. In total, about 31.33 tonnes of diesel has been saved over the past three years, equal to a reduction of 99.83 tonnes CO_2 equivalent emissions.

By shortening the distance from material storage to Point-of-Use, the Xuzhou Facility was also able to reduce a forklift's travel distance by 3,000 kilometers. This helped save 1.74 tonnes of diesel, equal to a reduction of 5.54 tonnes CO_2 equivalent emissions.

Shot Blasting Equipment Improvement and Cost Saving Project

The Xuzhou Facility houses a number of shot blasting machines used to clean, polish and strengthen metal parts. The large power motors on the machines mean they consume a great deal of energy. In order to meet engineering requirements, parts need to be processed twice, resulting in twice as much energy being used.

In order to reduce the energy and power consumption of the machines, the facility made two key improvements by modifying the internal programming controller of the shot blasting machines. First, it changed the uniform pass model of the parts by enabling a pause for those positions which required a further shot blast. Allowing the parts to be fully processed in one pass and meet the surface specifications for painting. Second, it differentiated the operation time of the shot blast motors to reduce the full load period of the whole shot blasting machine, thus saving power and reducing the consumption of steel shots.

With these modifications, not only is shot blast time of the parts reduced from 25 minutes to 17.5 minutes, but 100 kWh of power is saved in the production of each machine, equal to a reduction of 0.07 tonne CO_2 equivalent emissions. As of now, the facility has made the improvements to one shot blasting machine and plans to improve the rest of them in 2016.

Saving Electricity

In 2012, Caterpillar (Suzhou) Co., Ltd. (Suzhou Facility) was consuming about one million kWh of power on average per month. Almost half of the total power was consumed by lighting, ventilation system and air conditioning systems. There were also other factors that were contributing to the consumption such as excess lighting in certain working areas as well as lights and fans being left on when not in use.

To improve its energy efficiency, the Suzhou Facility carefully arranged its equipment and layout. Lighting was reduced in areas with excess light and fewer workers, and working areas requiring extra lighting were concentrated in particular zones. Changes enhanced the efficiency of lighting equipment and reduced the consumption of electricity during production. The facility also replaced part of the old lights (400 W) with energy-saving lamps (216 W). Following testing, the new energy-saving lamps satisfied production lighting requirements while significantly reducing power consumption. At the same time, electricity management in working areas was subdivided among the production supervisors who now ensure that lights and fans are turned off in non-working areas to reduce energy waste.

By implementing these measures, the Suzhou Facility has saved around 700,000 kWh of electricity in the past year, equal to a reduction of 519 tonnes CO_2 equivalent emissions.

Replacing Gas-Fired Boilers with a Solar Energy System

Caterpillar (Tongzhou) Ltd. (Tongzhou Facility) is located in the Science and Technology Industrial Park, Tongzhou District, Nantong, Jiangsu Province. Since commencing production in November 2012, it primarily manufactures large wheel loaders.

In September 2014, the Tongzhou Facility began the installation of a central solar energy hot water system to supply the facility's hot water. The system consists of two sets of solar vacuum tubes. Heat is collected through solar radiation, producing 3,000 liters of hot water at 70 degrees Celsius. The microcomputer-controlled process requires no manual operation and automatically adjusts water supply according to demand, thus avoiding waste. A secondary water return system has also been connected to the solar energy system, improving the hot water quality and avoiding additional waste water. Additionally, the system is equipped with lightning protection and an earth leakage protection device to ensure safety. The project renovation was completed in December 2014.

By using solar energy, the facility has lowered its CO_2 equivalent emissions. From December 2013 to December 2014, the facility eliminated 6.32 tonnes of CO_2 equivalent emissions because of this replacement.

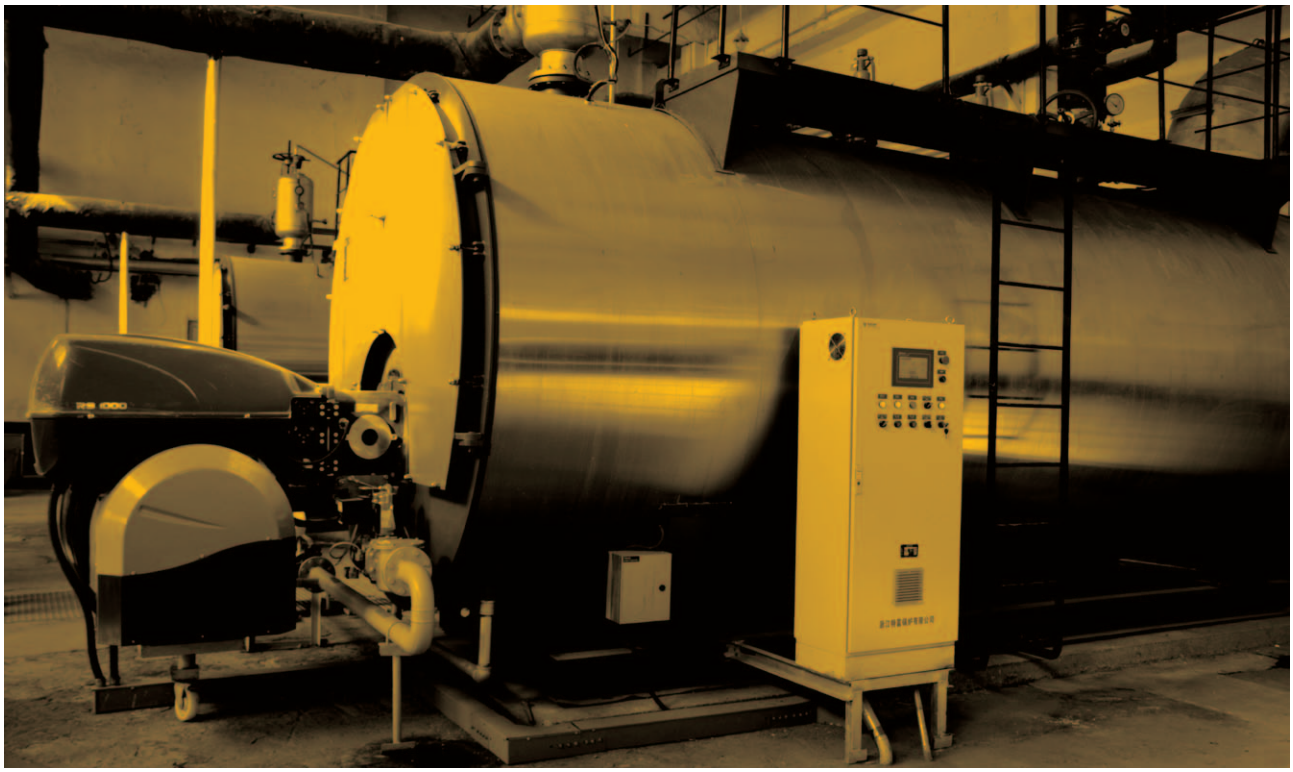
Emission Reduction

Paint Pre-treatment Process Improvement

Before 2014, Suzhou Facility used iron phosphate in its paint pre-treatment processes, which has annual biochemical oxygen demand and chemical oxygen demand of about five tonnes. It also produces waste materials including 130 tonnes of phosphorus and 50 kilograms (kg) of phosphorus-containing sludge per year. Another downside to the pre-treatment process is the need to heat the chemicals, a procedure that consumes about 300,000 m^3 of natural gas per year.

In September 2013, the Suzhou Facility decided to introduce a phosphate-free, low-power pre-treatment process to use non-renewable resources efficiently and reduce waste and emissions. The new pre-treatment applied a phosphate-free degreasing agent and used a nano-material (NT-1) to replace iron phosphating in the conversion process. To introduce the new pre-treatment process, the facility invested RMB 176,900 (approx. USD 29,000) to transform the original pre-treatment system. In addition to the alterations that were made to the existing equipment and pipelines, workers at the facility were trained in the new procedures and process parameters to ensure the quality of pre-treatment and painting.

The new pre-treatment process came into effect on January 6, 2014. After one year, the facility achieved its objective of introducing a paint pre-treatment process that emits phosphate-free wastewater. This not only reduces the impact on the environment but also lowers wastewater and sludge treatment costs. The new technology also cut natural gas consumption by 300,000 m^3.



Painting Process Re-engineering

The Wuxi Facility manufactures and assembles machinery components for other Caterpillar facilities in China and around the world. To meet market demand, the facility started expanding its Operator Station Facility painting production line and increasing its annual production in 2014.

The Wuxi Facility has made a number of improvements to address its expansion challenge. First, traditional air painting was replaced by electrostatic painting. This reduces the amount of paint used per cab unit by almost 80 percent. Secondly, a robotic painting machine was introduced to increase painting efficiency, creating a 10 percent savings in paint consumption per unit. To control emissions during the drying process, the facility introduced a Regenerative Thermal Oxidizer system and active carbon processes. Utilizing these technologies, the waste gas discharged from the production process was efficiently collected and treated, and has reduced emissions across the entire painting production line.

The aforementioned actions helped the Wuxi Facility successfully reduce the non-methane hydrocarbon emissions of each cab unit from 1.89 kg to 0.09 kg, a 95 percent emission reduction. The painting dust emissions per cab unit were also reduced, falling from 0.25 kg to just 0.01 kg, a 95 percent reduction in emissions.

Additionally, the Wuxi Facility has improved its manufacturing processes to increase energy efficiency, recycle and reuse water and reduce the amount of emissions being released into the environment.

Through the painting process re-engineering project, the Wuxi Facility has delivered significant sustainable manufacturing benefits. Reusing concentrated water from Reverse Osmosis equipment saves 14,400 tonnes of water per year. The project has also phased out the passivation pretreatment process, which is saving 1.5 tonnes of chemicals per year. Furthermore, the Wuxi Facility installed a biochemical treatment equipment to treat concentrated waste liquid to realize waste water self-processing and up-to-standard discharge. The introduction of the Vacuum Fluorescent Display and energy-saving lighting has saved 1,200,000 kWh of electricity per year, equal to a reduction of 891.14 tonnes CO_2 equivalent emissions.

Waste Reduction

Chemical Waste Treatment Projects

Cutting fluid is an industrial liquid used to cool and lubricate cutters and work pieces during the metal cutting and grinding process. Cutting fluid will impact water and soil if improperly disposed. Additionally, the disposal cost of cutting fluid is around RMB 2,600 (approx. USD 426) per tonne. Due to its high consumption of cutting fluid, the Suzhou Facility has machining processing costs as high as RMB 285,500 (approx. USD 46,800) per year. Therefore, extending the service life of cutting fluid has become a critical factor in reducing the use of cutting fluid and lowering discharge.

The Suzhou Facility officially implemented a fluid regeneration program, which has doubled the service life of its cutting fluid by periodically regenerating the cutting fluid in the mechanical work center. The facility's 2014 discharge of cutting fluid is 20 tonnes less than in 2013. The program has also improved operational safety in the process of replacing cutting fluid and wastewater treatment.

Caterpillar Undercarriage Xuzhou Ltd. (Undercarriage Facility) is another operation that is implementing new waste management solutions to reduce its impact on the environment and save costs.

Conventionally, it is common for a cutting coolant to be mixed with steel chips in the facility track link machining process. The coolant is a chemical that needs to be disposed of safely. The Undercarriage Facility was spending around RMB 12,200 (approx. USD 2,000) per month to dispose of the waste liquid. The facility employees designed and built an underground coolant collecting and recycling system. The collected coolant is now filtered, pumped back into the cycling system and reused in the next machining process. It reduces coolant consumption and most importantly, it significantly reduces the quantity of the facility's waste. The system was established and running by the end of 2013. The coolant collecting and recycling system is projected to save the facility nearly 600 liters of coolant each year and reduce chemical waste disposal by 20 tonnes annually.

Reuse of Wooden Package Waste and Disposable Axle Racks

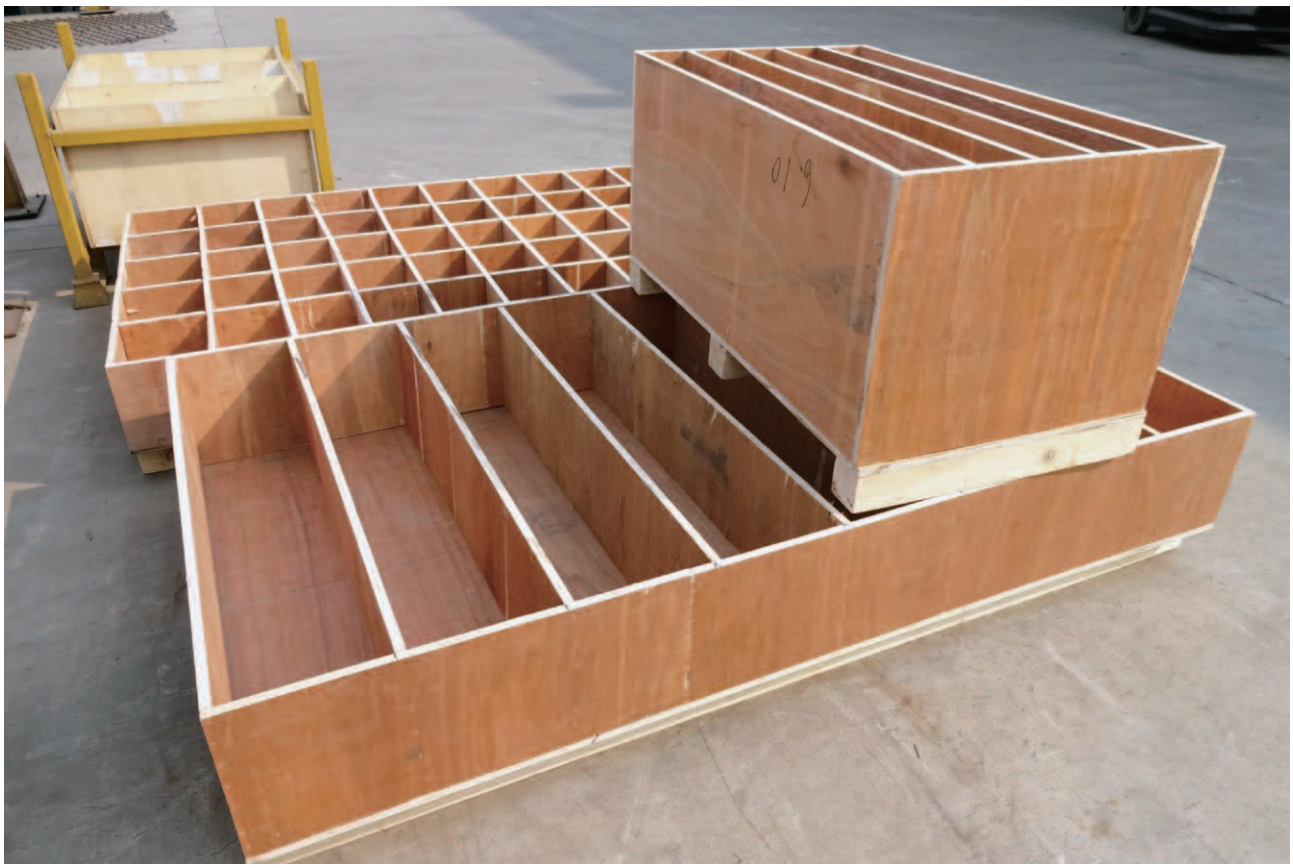
Most of the Xuzhou Facility's imported materials arrive in packages made of wood. With the build volume increasing rapidly each year, the amount of waste wood is considerable. In the past, a large amount of waste wood was sold to scrap yards every year.

Rather than sell all of it, however, the facility began to look into ways that the wood could be used onsite. To make use of the waste packaging itself, engineers from the facility's Supply Chain team developed a plan to use some of it in addition to steel pallets. Also, a wood recycling center was set up to either recycle the wood or remodel it into something more useful.

As of now, the Xuzhou Facility team has made boom and stick space wood, standard pallets, garbage cans and tables from the waste wood. In 2014, a total of 102 m^3 of waste wood was recycled or reused.

A similar initiative to the wood reuse project was initiated for repurposing metal racks. The Xuzhou Facility imports its axles from Germany on metal racks that are traditionally one-time-only use. After the axles are mounted onto excavators, the empty racks do not need to be returned to Germany. As more excavators are built, more of the empty racks are stored in the facility's yard. The facility also stores other surplus metal racks that have undergone engineering changes or have now been phased out in the yard.

With the number of excess racks building up, the facility recognized the need for a solution to put the waste racks to use. A project was soon implemented whereby a team from the facility began adapting the racks so they could be used in China. This project alone resulted in 70 m^3 in wooden package savings. Compared to investing in new racks, adapting existing ones for additional uses will reduce the unnecessary consumption of metal and wood, which helps to reduce the facility's environmental impact.



4 PHILANTHROPY

The Caterpillar Foundation

Caterpillar believes that the most successful companies will be those that integrate sustainability into their core business and actively promote progress in their communities. That is what we are doing at Caterpillar worldwide. Having done business in China for four decades, Caterpillar is committed to being a responsible and contributing corporate citizen.

Founded in 1952, the Caterpillar Foundation is committed to helping make sustainable progress possible around the world by providing program support in the areas of access to education, environmental sustainability, and basic human needs. The Foundation is dedicated to helping people in need out of the spiral of poverty and putting them on the road to prosperity, thus contributing to the sustainable development of the economy and society. The Caterpillar Foundation started its support in China in 2000.

Education

Access to a quality education helps break the cycle of generational poverty, contributes to business growth and builds strong economies. The Caterpillar Foundation supports a range of education programs that focus on basic math and literacy, and help people acquire basic skills and training to find and maintain quality employment.

The New Citizen's Teaching Micro-fund for Migrant Schools

Since the 1980s, a large number of migrant workers in China have been moving from the countryside to cities, in order to find work. According to the Sixth National Population Census, the migrant population in China has reached 221 million people with about 2.05 million school age children unable to study in public schools or expensive private schools and needing to enroll at private migrant schools to find education. It is estimated that there are at least 3,500 private migrant schools running in China. Due to a lack of teaching resources and qualified faculty, students are often choosing to drop out of school early. The shortage of financial support means that engaging and innovative teaching ideas are difficult to come by, not to mention the lack of training opportunities for the teachers in migrant schools.

Motivated to change the situation and improve the quality of education in migrant schools, the New Citizen Program has initiated a series of programs since 2007 to provide educational support to migrant students through migrant community centers, migrant schools and volunteer initiatives. So far, the programs have benefited more than 380,000 migrant students across 19 provinces and cities with a total accumulated investment of more than RMB 70 million (approx. USD 11,475,400) and have received several awards for its contributions.

The Teaching Micro-fund for Migrant Schools is one of the programs initiated by the New Citizen Program. The program helps teachers in migrant schools implement new teaching practices and provide students with the resources they need to learn. The fund offers migrant school teachers with a small fund of less than RMB 800 (approx. USD 131) to realize their innovative teaching ideas, promote students' interest in learning, support students' language, science, social and psychological development, as well as provide teacher training and enhance the overall teaching quality of migrant schools. The objective is to help reduce the student dropout rate and improve students' academic performance.

In 2014, with the support of the Caterpillar Foundation, 400 teachers and 20,000 students benefited directly from the New Citizen program, and approximately 1,000 teachers and 20,000 students benefited indirectly from hundreds of activities supported by the Teaching Micro-fund for Migrant Schools.

Emergency Safety Experience Classrooms

Accidental injury is the primary cause of death among children aged 0-14 in China. It is also a significant contributor to childhood disability. In recent years, natural disasters like earthquakes and floods have led to injuries and the deaths of thousands of children. Statistics showed that children made up the highest proportion of casualties in the Wenchuan earthquake in 2008. Many of the children died due to a lack of emergency safety training. Currently, most primary and secondary schools in China do not have the resources to provide comprehensive emergency safety education to students.

Motivated to change this situation, the China Children and Teenagers' Fund launched the Child Emergency Safety Education Project in 2010 to provide emergency safety equipment and facilities, increase child emergency safety education, and actively promote health and safety awareness in society. So far, the project has built 196 "Child Safety Experience Classrooms" across the country and organized more than 200 teacher training sessions. The project has brought training to eight million people. In 2014, the Caterpillar Foundation began supporting the project and the building of "Safety Experience Classrooms" in several cities, which will directly benefit around 10,000 students and about another 20,000 students indirectly.

The "Child Safety Experience Classrooms" are platforms for safety education introduced to schools by the Child Emergency Safety Education Project. The "Scenario Experience" teaching model helps schools educate students on prevention, risk avoidance and crisis skills in all emergency situations including natural disasters, fire safety, traffic safety and public health in a long-term and systematic manner. For example, the training features first aid as well as rope knotting for escape situations.The "Child Safety Experience Classrooms" combine online learning and practical advice, and provide schools with information about relevant safety courses, teaching methods, tests, software, videos and teaching resources.

Environment

Protecting and preserving the environment while building the local economy is critical to long-term sustainable development. The Caterpillar Foundation supports environmental programs that focus on effective natural resource management.

Support Sustainable Development and the Construction of Livable Cities in China

In 2012, the World Resources Institute (WRI), supported by the Caterpillar Foundation, began a sustainable urbanization and livable city construction research project for five cities in China, India and Brazil. Chengdu and Qingdao were selected as China's pilot cities. The research focuses on greenhouse gas emissions reduction, energy efficiency improvement, water quality and urban transport improvement, and research into land use status. By the end of 2014, the first phase of the project in China was successfully completed, and The WRI released five research reports: including "Low-Carbon and Sustainable Transport for Qingdao - A Strategic Study," "Water Energy Nexus in the Urban Water Source Selection - A Case Study from Qingdao," "Chengdu's Low Carbon Development Blueprint Study," "Analysis of Municipal Sewage Treatment Plants' Energy Efficiency and Emission Reducing Potential in Chengdu" and "Smart Strategies for Private Vehicle Ownership and Usage in Chengdu." The work in this first phase includes proposed practical advice and solutions for governments of Qingdao and Chengdu according to the local conditions, covering urban water resources, transportation and energy.

Water and energy are essential social and economic development factors in urban areas. The research projects in Qingdao analyze and provide suggestions to policy makers on how to implement a sustainable low carbon water supply strategy and find the usage balance between water and energy resources. In Chengdu, the urban sewage treatment facilities project proposes strategies to improve the energy efficiency of sewage treatment and explores how pollutants can be reduced through upgrades to sewage treatment facilities.

As more people take to the road, the amount of urban traffic is becoming a big problem in China. The "Smart Strategies for Private Vehicle Ownership and Usage in Chengdu" project provides strategic recommendations on how to increase the city's livability through the development of a low carbon transportation system. Through learning experiences from home and abroad and by analyzing Chengdu's urban environment, the project offers step-by-step guidance to help change Chengdu's transportation management policy.

For most Chinese cities, energy demand in the short and medium term is continuing to increase. Clean energy structures and controlling the rapid growth of energy demand is an immediate priority. Based on the understanding of energy consumption and carbon emissions, low carbon research projects provide development paths for the reduction of carbon emissions in both Qingdao and Chengdu. The reports from the research projects highlight the key elements impacting carbon emissions and propose practical low carbon development goals in the medium and long term, and suggestions for immediate action plans. The project also provides systematic support for high energy consuming enterprises and public institutions. This includes training programs on how greenhouse gases are measured and how to tackle climate change and carbon market development. Noted experts from home and abroad will be invited to speak at seminars and help the cities introduce new low carbon technology.

A 2030 low carbon development goal has been put forward in the project with staged targets and measurements in place to help Chengdu government execute a long-term and successful low carbon plan.

Basic Needs

When people's basic human needs are met, they are able to more effectively pursue economic and education opportunities.

While China is a fast-developing country, it still has a population of more than 128 million people - approximately one-tenth of China's total population - whose daily average income is less than RMB 7.63 (approx. USD 1.25).

Through the support of unsecured microfinance projects with organizations like China Foundation for Poverty Alleviation (CFPA) and Opportunity International China (OIC), the Caterpillar Foundation is helping people, especially women, find ways out of poverty, obtain a sustainable livelihood and create a better life for their families.

The Caterpillar Foundation has been supporting CFPA's microfinance project since 2010, providing financial support to women from rural and migrant families and helping them increase their agricultural production or start small businesses. About RMB 2 million (approx. USD 327,900) has been provided to support 125 families from rural areas by the end of 2014. According to CFPA's statistics, the support has increased the income of these families by more than 20 percent on average. Additionally, around 40 training sessions were organized to provide 1,800 farmers with advice about vegetable planting in greenhouses, disease control of animals and basic accounting.

Meanwhile, the OIC microfinance project has provided about RMB 67 million (approx. USD 11 million) to rural families. This project has cumulatively impacted 186,401 jobs and provided training to 5,540 people in rural areas by the end of 2014.

FORWARD-LOOKING STATEMENTS

Certain statements in this 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:

- global and regional economic conditions and economic conditions in the industries we serve;
- government monetary or fiscal policies and infrastructure spending;
- commodity price changes, component price increases, fluctuations in demand for our products or significant shortages of component products;
- disruptions or volatility in global financial markets limiting our sources of liquidity or the liquidity of our customers, dealers and suppliers;
- political and economic risks, commercial instability and events beyond our control in the countries in which we operate;
- 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;
- our Financial Products segment's risks associated with the financial services industry;
- changes in interest rates or market liquidity conditions;
- an increase in delinquencies, repossessions or net losses of Cat Financial's customers;
- new regulations or changes in financial services regulations;
- a failure to realize, or a delay in realizing, all of the anticipated benefits of our acquisitions, joint ventures or divestitures;
- international trade policies and their impact on demand for our products and our competitive position;
- our ability to develop, produce and market quality products that meet our customers' needs;
- the impact of the highly competitive environment in which we operate on our sales and pricing;
- failure to realize all of the anticipated benefits from initiatives to increase our productivity, efficiency and cash flow and to reduce costs;
- additional restructuring costs or a failure to realize anticipated savings or benefits from past or future cost reduction actions;
- inventory management decisions and sourcing practices of our dealers and our OEM customers;
- compliance with environmental laws and regulations;
- alleged or actual violations of trade or anti-corruption laws and regulations;
- additional tax expense or exposure;
- currency fluctuations;
- our or Cat Financial's compliance with financial covenants;
- increased pension plan funding obligations;
- union disputes or other employee relations issues;
- significant legal proceedings, claims, lawsuits or government investigations;
- changes in accounting standards;
- failure or breach of IT security;
- adverse effects of unexpected events including natural disasters;
- other factors described in more detail under "Item 1A. Risk Factors" in our Form 10-K filed with the SEC on February 17, 2015 for the year ended December 31, 2014.

CATERPILLAR®